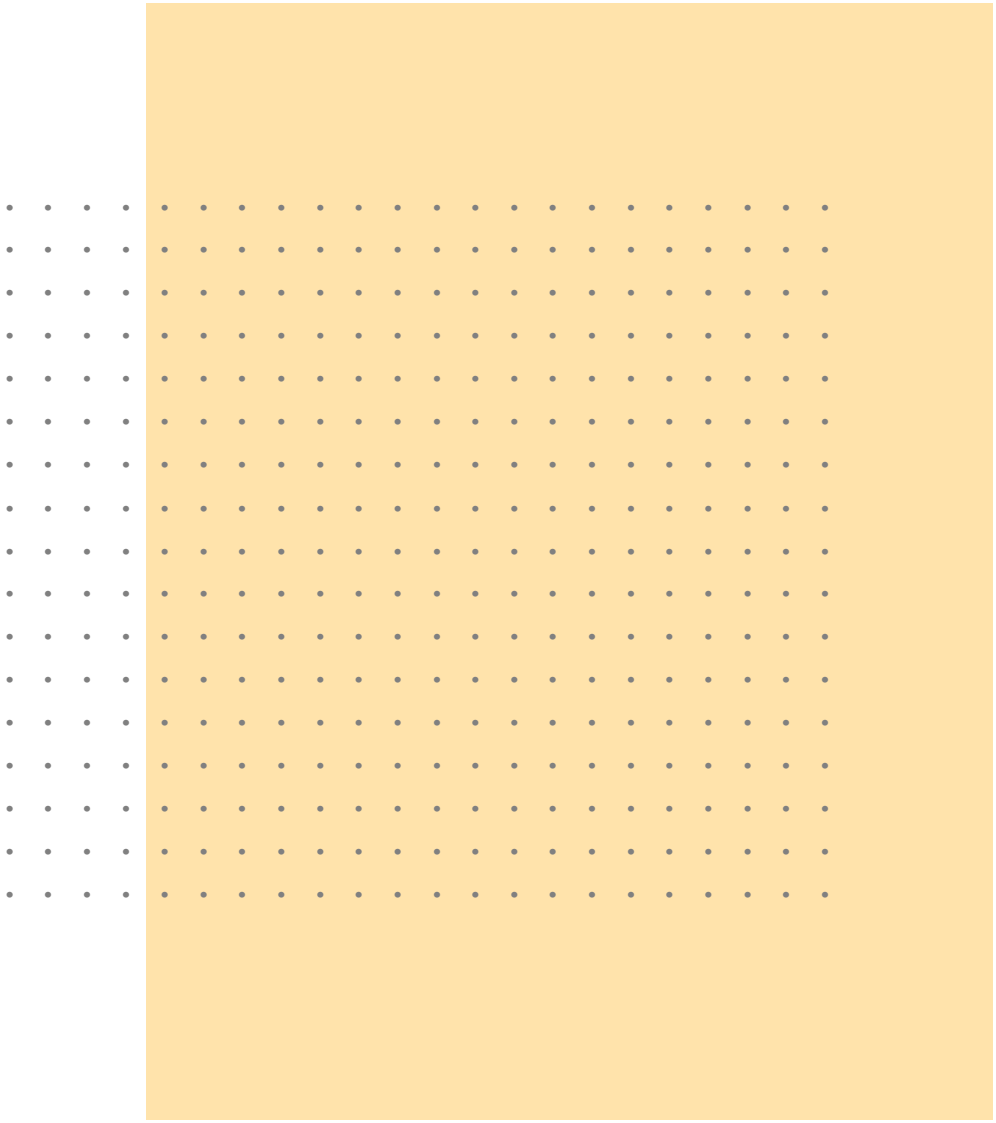
2017

Activities Report



FUNDAÇÃO
FACULDADE DE MEDICINA

SUMMARY

PRESENTATION

FFM reinforces its commitment in supporting the activities of theFMUSP and its HCFMUSP, by complying with their statute guidelines. For this purpose, it carries out dozens of projects focused on teaching, research and assistance.

In the Message from the Board of Directors, the objective of the Annual Activity Report of the institution and the gratitude towards the employees who made their information available were highlighted (page 7).

Get to know an overview of the social reach obtained by the FFM in 2017, by analyzing the "**FFM in Numbers**" (page 8), which shows that FFM supports 97 % all executed free procedures.

To fulfill its statutory objectives, FFM supports the development of a series of **actions of integral health care** (page 9), always prioritizing the care of SUS (Brazilian Universal Care System) patients. Other of our priorities is to ensure **special procedures** such as transplants, implants and other high complexity procedures (page 21).

The maintenance of the performance achieved by the HCFMUSP Complex (page 24) and by other Health Units (page 37) was ensured by FFM, through the allocation of human and financial resources. In 2017, the birth of the first baby born of a deceased donor's transplanted uterus in the HCFMUS0P stood out.

From the qualification as a Social Organization, it was possible for the FFM to manage the **ICESP Management Contract** (page 39), conceived as a teaching hospital and research development center. It is specialized in high complexity care and equipped to provide comprehensive care to the oncological patient in the public health care system (SUS), from the center of care to oncological complications, outpatient unit, day hospital, chemotherapy, radiotherapy, hospitalization units, intensive care, surgical center and rehabilitation center. In 2017, it invested in process innovation, new technologies, scientific research, teaching, training and education of employees and patient safety, ensuring not only the quality of services, but also the humanization, one of its distinguishing features among large public and private oncology centers. In 2017, interactive actions were also carried out to disseminate safe and relevant information that benefit the prevention and early diagnosis of cancer, as well as encouraging the adoption of healthy habits and sports practice, such as *ICESP Run* and *Remama Project*.

FFM also continued to manage the **IRLM Management Contract** (page 43), located in the Morumbi neighborhood of São Paulo, one of the IMRea units, which grants SUS the same quality standards available for the people with disabilities found in the best care centers in the world. With a higher level of care, recognized by its patients, IRLM promotes the physical rehabilitation of victims of accidents or diseases that cause motor problems and locomotion difficulty. In addition to the specialized care, in 2017, the IRLM developed playful actions with a therapeutic focus, prescribed according to the type of readaptation required and the characteristics of the patient, such as the *Oficinas de Cartonagem* (*Cardboard Workshops)* and *Cozinha Terapêutica* (*Therapeutic Cuisine)*.

Recognized and certified as charity, FFM supported the development of **social assistance** (page 47) inside and outside the FM/HCFMUSP System premises, directed at the most deprived population, without prejudice to SUS service. An example of this is the **Bandeira Científica** (Scientific Flag) (page 48), which carried out more than 3,600 procedures to families under social and economic risk at the municipality of Sacramento – MG.

FFM is involved in a series of assistance projects, favoring:

1) AIDS and Sexually Transmitted Diseases carriers (page 56), who were benefited by the specialized ambulatory care provided by the Casa da Aids (Aids House) (page 35) and several other initiatives supported by FFM, such as the *REPRIEVE Study*, whose objective is to evaluate the effects of pitavastatin in the prevention of major cardiovascular adverse events in patients receiving HIV infection treatment.

2) People with Disabilities (page 62), who benefited from IMRea's specialized assistance (page 30) and the IRLM (Page 43), in addition to several other initiatives supported by FFM, such as the approval of a project to develop computational methods that contribute to the early and more objective diagnosis of Autistic Spectrum Disorder.

3) Oncological Patients (page 66), which, in addition to the actions developed by ICESP (page 39), by ITACI (Institute for Treatment of Childhood Cancer) (page 75) and by InRad (Institute of Radiology (page 26), receive benefit several other initiatives, with the intervention of the FFM, such as the laser fluorescence system, unique in the SUS and the country's private network, which will help surgeons to improve the mapping of patient's circulatory system during surgery, allowing immediate identification of blood supply areas, as well as offering the surgeon more accuracy in decision-making during tumor removal and plastic reconstruction.

4) Children and youth (page 73), besides the ICr (Child Institute) specialized hospital care (page 36) and ITACI (page 75), are benefited by other initiatives such as the *Karma Project,* which aims to search for environmental, genetic, biochemical, neuropsychological and neuroimaging information in order to investigate risk and protection factors that may inform negative and positive outcomes related to mental health in childhood, adolescence and early life adulthood, since most psychiatric disorders begin in childhood or adolescence.

5) Families and women (page 77), which, in addition to the actions of the "Bandeira Científica" Project (Page 48), are benefited, for example, of research aimed at building an international multidisciplinary network to fight domestic violence against women.

6) Elderly (page 79) that are benefited, for example, from the accomplishment of a research aiming at the regularization of the activities of a Biobank for Studies in Aging.

Researching support (page 83) is one of the FFM's priority functions, through either its structure or the stimulation of scientific production, in addition to supporting the development of clinical studies (page 97), such as a research evaluating the use of an application to treat symptoms of depression in chronic patients.

Supporting Health Policy projects (page 99), including a definition of processes and technologies, training of public network professionals, development of assessment tools, analysis of results, among others, is also part of FFM's activities, such as supporting the Department of Pharmaceutical Assistance and Strategic Inputs (DAF) of the Ministry of Health in the implementation of a laboratory for the promotion and development of projects in the area of automation and innovation, with the objective of researching, developing, fostering, experiencing and validating technologies and their respective applications that improve the performance of DAF's actions in its field of activity.

Supporting the development of **Institutional Projects** (page 111), which mainly aim at the improvement, expansion and maintenance of the physical and technological infrastructure of the FM/HCFMUSP System installations was also part of FFM's actions in 2017, such as a project that enables the preventive and corrective maintenance of the costly and advanced technology equipment installed in the PREMiUM Network (a program that enabled the deployment of decentralized cores, equipped with the latest technologies and organized in a network, making them accessible to the researchers from within the System and outside it).

A brief **history** of FFM (page 118), and its **consolidated results** (page 119), adopted **strategies** (page 120), main **partners** (page 122), main **certifications** (page 123), the **organizational structure** (page 126) and the **synthesis of the Financial Statement for 2017** (page 132) are also presented at the end of this Report.

At **Abbreviations** used in this Report (page 133) and the current composition of the **Administration of FFM** (page 135) complete the 2017 FFM Report.

Attached are the **Financial Statements for 2017**, with their respective **Explanatory Notes** and **Independent Auditors Report**.

MESSAGE FROM THE BOARD OF DIRECTORS

Site FMUSP

Professor Dr. ***Flavio Fava de Moraes***

Mileno The Frigatto

Professor Dr. Yassuhiko Okay

The Activities Report is an important and authentic document that thoroughly clarifies all the tasks performed by the Institution last year with several indications comparing to the past and, respectively, exposing realistic future projections.

However, it is not uncommon for it to receive negative comments by considering it a boring, tiring, bureaucratic and "poorly read" with the necessary attention repertoire. But, other considerations aside, it is a necessary (required) task where the institution, without gongoric language, renders indispensable accounts to society to justify its own existence. In order to do so, it also faces operational difficulties and even discomfort with some private external entities and, unfortunately, also with some state sectors.

However, this time and due to happy existential coincidence, it should be highlighted the singular position occupied by the new Institute of HCFMUSP represented by the Cancer Institute (ICESP), which will complete, in May/2018, its 10th anniversary of successful implantation, to the point of being considered the best public hospital in the State of São Paulo (among other accolades) by its users. The School of Medicine Foundation (FFM) is happy to be the Social Organization that coordinates the management plan of ICESP and supports for 30 years the administration of the other HC's Institutes and the USP's School of Medicine. Nothing is more honorable than being praised both internally and by public and private external audit bodies (audits).

FFM is grateful for the contributions and consolidated data that have been made available to us by alll its collaborators and those of the HCFMUSP, both from the assistance and technical–administrative sectors.

Board of Directors of FFM
March / 2018

FFM IN NUMBERS

A – Procedures + Free Admission to SUS Patients – 2017		Quantity	Page
High Complexity	ICESP (Management Agreement)	519,434	40
	ICESP Osasco (Management Agreement)	34,757	42
	High Ambulatory Complexity (University Agreement)	(*) 199,662	22
	Transplants and Implants (University Agreement)	(*) 797	21
People with Disability	Instituto de Reabilitação Lucy Montoro (Management Agreement)	33,995	45
	IMRea – Vila Mariana Unit (University Agreement)	140,464	30
People with Aids Virus	Casa da Aids (University Agreement)	19,999	36
Children	ICr – Child Health Care (University Agreement)	638,020	29
	ITACI – Treatment of Childhood Cancer (University Agreement)		
Families	ICHC + PAMB – Assistance in Medical Specialties (University Agreement)	7,252,581	25
	InRad – Assistance in Radiology (University Agreement)	321,488	26
	IOT – Assistance in Orthopedics and Traumatology (University Agreement)	365,788	27
	IPq – Assistance in Psychiatry (University Agreement)	111,664	28
	H.A.S. – Assistance for long-term patients (University Agreement) – (**under construction**)	3,963	34
	H.A.C. – Assistance in intermediate care (University Agreement) – (**under construction**)	0	34
	C.S.E. Butantã (University Agreement)	3,736	37
Pharmaceutical Care	Quantity of Exceptional Medications	(*)38,877,672	22
A – Subtotal Procedures + Free Admission to SUS Patients		**9,445,889**	
B – Free Procedures – Special Projects		**Quantity**	
Social Assistance	Bandeira Científica Project 2017	3,687	49
	Equilíbrio Program (Other Agreements)	965	51
	Vision of the Future Program (SES-SP Agreement)	2,725	52
	Student Financial Support Program – AFINAL	60	53
	NGA Várzea do Carmo (SES-SP Agreement)	22,520	37
	CEDMAC (SES-SP Agreements) – Quantity of Care	(**) 12,372	109
	CEMIM – IOT (SES-SP Agreements) – Quantity of Surgeries	1,243	103
	Phonoaudio. care + Surgeries in Patients with Cleft Palate (Other Agreements)	691	53
	Mental Health – CASA Foundation (Other Agreements)	(**) 2,099	53
B – Subtotal Free Procedures – Special Projects		**46,362**	
A + B – Subtotal Procedures + Admission Free Patients from SUS + Free Procedures – Special Projects		**9,492,251**	
C – Procedures for Supplementary Health Patients – Ambulatory and Admission		**Quantity**	
Procedures for Supplementary Health Patients – Ambulatory and Admission		333,070	19
C – Subtotal Procedures for Supplementary Health Patients – Ambulatory and Admission		**333,070**	
A + B + C – General Total of Procedures + Free Admissions + Supplementary Health		**9,825,321**	
Representativeness of Free Procedures (SUS + Other Procedures) on the General Total		97 %	
Representativeness of Supplemental Health Procedures over the General Total		3 %	

(*) The quantity is for information only and it is not considered in the Subtotal of Free Procedures for SUS Patients
(**) Approximate average quantity

Integral Health Care Assistance

INTEGRAL HEALTH CARE ACTIONS

The main objective of the FM/HCFMUSP System is to offer teaching, research and culture and extension activities, with emphasis on multidisciplinarity and interinstitutionality.

FM/HCFMUSP System

The FM/HCFMUSP System is the oldest Brazilian university health system. Its main objective is to offer teaching, research and culture and extension activities, with emphasis on multidisciplinary and multiinstitutionality.

In addition to FMUSP, it is composed of institutes specialized in high complexity care (**tertiary/quaternary care** – HCFMUSP), medium complexity hospital (**secondary care** – HU–USP), auxiliary hospitals, units specialized in the integral care of patients with HIV/AIDS, School Health Center and Basic Health Units (**primary care** – CSE Butantã).

FMUSP exerted a visionary leadership by performing the **Searching for the Future 2020 Conference** in 2010. The event, which defined the Organization's new course for the next ten years, brought together more than 100 people – students, teachers, professionals linked to the FM/HCFMUSP System and representatives of other institutions – who contributed with their insights and visions on the role of the Faculty in society and its future. The debate established six guiding directives: Integration; Humanization; Sustainability; Internationalization; Excellence in teaching; and Incorporation of new technologies. After the Conference, these directives were disseminated in the organizations that make up the FM/HCFMUSP System. From then on, propositional actions generated a collective mobilization and promoted the creation of a governance model for HCFMUSP – **Sparkle in the Eyes Management** (*Gestão Brilho nos Olhos*) – that was useful for the maturing of the administration, leading it – from 2011 to 2014 – to a new management level.

The FM/HCFMUSP System is organized as an Academic Health System. Occupying a constructed area of 600 thousand m^2, it serves more than 2.5 million patients in its three levels of assistance, has 2,500 beds and 20,000 employees and develops around 6 % of the Brazilian researches in the areas of biomedical health and sciences.

The FM/HCFMUSP system is composed of approximately 1,500 professionals, distributed in its various units, developing research projects in the most diverse areas of science, as teachers, supervisors of the Post-undergraduate prorams and researchers who have sent their research projects for CAPPesq evaluation.

Within the FM/HCFMUSP System, the researchers work in the LIMs, totaling 213 groups registered in the CNPq working for the development of 455 lines of research that cover all areas of medical knowledge and health. And, along with researchers who develop projects in the basic and clinical areas, investigations on mathematical models for understanding the cancer biology, epidemiology or new therapies (e.g., cell therapy, generative medicine, immunotherapies, targeted therapies, etc.) are also performed.

The FM/HCFMUSP System leads initiatives aimed at the development of several areas of critical social impact, such as Medical Biotechnology, Biomedical Engineering and Information Technology for Health, including the Telemedicine area, among other strategic areas, both for the state of São Paulo and the country, as it represents an immediate improvement in health care provided to the population with increased service productivity in the medium and long term. From 2012 to 2016, the FM/HCFMUSP System accumulated 9,129 publications, being 70.73% of the articles published in international journals.

The higher echelons of the System are the FMUSP Congregation and the HCFMUSP Deliberative Council, both presided over by the FMUSP Director. The FMUSP Congregation has an advisory and deliberative function and is advised by the Undergraduate, Post-undergraduate, Research, Culture and Extension, Medical Residency and International Relations Commissions. The HCFMUSP Deliberative Council defines the guidelines for tertiary–level medical and hospital care and is composed of ten representatives of FMUSP's titular teachers, elected by their peers.

The following institutions compose the FM/HCFMUSP System:

School of Medicine, University of São Paulo (FMUSP) (page 13), recognized for its pioneering and excellence, in the fields of teaching, research and university extension. The Institution invests in modernization, technological innovation and educational platform, in addition to establishing partnerships with the private initiative and expanding the internationalization process to be a worldwide reference educational center. Its **mission** is on the undergraduate and Post-undergraduate teaching, research and culture and extension of services to the community, related to medicine, physiotherapy, speech therapy and occupational therapy, within the highest ethical and moral precepts. Its **vision** is to train physicians, physiotherapists, speech therapists and occupational therapists with solid general training, profound basic training, training at three levels of health care (primary, secondary and tertiary), high ethical and humanistic training and make them able to perform their duties. As for the **values**, the activities performer and the assistance provided by FMUSP are executed according to the principles of ethics, respect for the individual, humanization, honesty, pioneering spirit and excellence.

The Hospital das Clinicas Complex School of Medicine of the University of São Paulo (HCFMUSP) (page 15), one of the main Brazilian

production and diffusion centers of technical−scientific knowledge and center of excellence in teaching, research and health care. The complex consists of eight institutes, all of high complexity (tertiary care) (ICESP, ICHC, InCor, ICr, IMRea, IOT, IPq and InRad); two auxiliary hospitals (Cotoxó and Suzano); a unit specialized in the integral care of patients with HIV/AIDS (Casa da Aids); 62 Medical Research Laboratories (LIMs), responsible for research activities in various health fields; specialized units and support areas, as well as the School of Permanent Education (EEP), an educational center that promotes education for health care and health education professionals, and the general community, in the Technical models − in vocational categories and in initial training courses; and Superior − in areas of diffusion, updating, improvement, specialization and professional improvement. Comprised of more than 20 thousand professionals, from different areas, who devote their time to quality and primordial care, the HCFMUSP, a school hospital of FMUSP, reached a standard of excellence in public service, education and multiprofessional training in the area of health with vigor, respect and a "Sparkle in the Eyes" − a hallmark of HCFMUSP's current management.

Fundação Faculdade de Medicina (FFM − Faculty of Medicine Foundation), a private law foundation that strongly supports the initiatives of FMUSP and HCFMUSP through full interaction with the decisions of its collegiate bodies, ensuring the observance of its normative guidelines, both before the state control and oversight bodies and with reputable external audits. FFM has kept, since 1988, the University Agreement, signed between HCFMUSP, FFM and SES-SP, whose main objective is a comprehensive health care for the SUS patients. The financial resources obtained from this service are fully applied to the activities of the FM/HCFMUSP System, following the determination of its governing bodies. FFM fully reverses the substantial growth of operating revenues in favor of the operation itself and the performance of projects and programs. Of its 12,550 current employees, only 368 are allocated to its direct administration; the remaining professionals work directly in the assistance activities, development of a comprehensive health care and patient assistance. FFM runs management contracts and is currently the social organization responsible for the management of ICESP and IRLM. Partnerships with public and private institutions, both national and foreign ones, allow FFM to develop several programs of the FM/HCFMUSP System, mainly in the areas of health care and education, which benefit the population, as well as other collaborative actions in the performance of various aid projects of social interest.

Zerbini Foundation (Fundação Zerbini – FZ), a private law foundation that has been playing an important role in promoting agility and administrative efficiency for InCor (Heart Institution), as well as in raising funds.

Cancer Institute of the State of São Paulo (ICESP) (page 39), idealized as a teaching hospital and research development center. It specializes in high complexity care and is equipped to provide comprehensive care to the oncological patient in the public health system (SUS), from the center of care to oncological complications, outpatient clinic, day hospital, chemotherapy, radiotherapy, hospitalization units, intensive care, surgical center and rehabilitation center.

Instituto de Reabilitação Lucy Montoro (Lucy Montoro Rehabilitation Institute − IRLM) (page 43), a center of excellence in rehabilitation treatment, teaching and research. It serves people with physical disabilities or potentially disabling diseases and aims to carry out the full medical rehabilitation program, guide and advise professionally and also achieve the physical and social appreciation of rehabilitation.

University Hospital of USP (HU−USP), community school hospital, inaugurated in 1981, within the University Town.

Samuel Barnsley Pesssoa Health School Center (Centro de Saúde Escola Samuel Barnsley Pessoa − CSE Butantã) (page 37), teaching and care unit of FMUSP, under the responsibility of the Departments of Preventive Medicine, Paediatrics, Medical Clinic and Speech and Hearing Therapy, Physiotherapy and Occupational Therapy (FOFITO), aimed at the population of Butantã, in the West Zone of the city of São Paulo.

City Verification of Death Service (Serviço de Verificação de Óbitos da Capital − SVOC), an organ linked to the FMUSP to clarify causes of death in cases that the death is due to ill-defined disease or without medical assistance, occurred in the City of São Paulo.

USP SCHOOL OF MEDICINE

The talent and dedication of the teachers, students and employees of FMUSP have been recognized by different world rankings created to measure the quality of universities based on several criteria, especially those related to scientific productivity.

FMUSP COLLECTION

Aerial view of USP School of Medicine

The School of Medicine of the University of São Paulo (FMUSP) is recognized for pioneering and excellence encompassing teaching, research and university extension. The institution innovates more and more in the search for knowledge, investing in modernization, technological innovation, educational platforms, partnerships with private initiative, student exchanges and internationalization.

The Faculty offers four undergraduate courses: Medicine, Physiotherapy, Speech and Language Therapy and Occupational Therapy. The institution also boasts 26 postgraduate programs (master's and doctoral degrees); 62 medical residency specialty programs; 14 multiprofessional and uniprofessional residency programs.

At FMUSP, the scholars have solid education and training at the three levels of health care (primary, secondary and tertiary) and a humanist orientation permeated with the highest ethical and moral precepts. Currently, 1400 students are enrolled at FMUSP, as well as 1800 postgraduate students, 1600 residents and 1039 employees, among which 375 teachers working in 17 departments.

The Medicine course is located at the Pinheiros Campus, with a built area of 44,000 square meters, and the Physiotherapy, Speech and Hearing Therapy and Occupational Therapy courses are located at the University Town, in an area of 6,000 square meters of built area.

FMUSP was founded in 1912 under the name of School of Medicine and Surgery of São Paulo, by Arnaldo Augusto Vieira de Carvalho (1867−1920), a physician graduated in 1888 by the School of Medicine of Rio de Janeiro. In 1925, it had its name changed to São Paulo Medical School and, in 1934, it was incorporated to the newly created University of São Paulo. In the 1920s, agreements signed between the Rockefeller Foundation and the School of Medicine resulted in the inauguration, in 1944, of the model school hospital, Clinics Hospital − Hospital de Clínicas (HC).

As early as 1951, the American Medical Association boosted FMUSP among the top 15 medical schools in the world. Today, it is the only Medical School in Latin America participating in the M8 Alliance and ranked among the top 100.

With an intense internationalization process, FMUSP implemented in 2015 the Medical Winter Schools, for undergraduate students from universities of several countries. It is another opportunity where renowned professionals from different areas of health care meet and students can enjoy an effective international academic experience.

A century after its creation, FMUSP is the largest human resources of heatlh care training center in Brazil. Today it maintains 26 *Stricto Sensu* Postgraduate programs. FMUSP trains one out of six Brazilian doctors in the health care field.

It is responsible for about 14 % of the Brazilian medical research, 4 % of all Brazilian scientific production in all areas (Humanities, Biological and Exact Sciences) and 2.2 % of all production in Latin America (also for all areas).

Since its inauguration, it has kept its commitment to pioneering, excellence in Teaching, Assistance and Medical Research. Throughout its history, it pioneered the implementation of new techniques, which represent scientific advances in the medical field and have saved thousands of lives.

Since 2010, FMUSP has been implementing the FMUSP 2020 Project, which was based on the Searching for the Future Conference, in 2012, which has periodically brought together professionals from all areas and hierarchies of the FM/HCFMUSP System to discuss strategic axes for the development of the Institution. **Six axes** were defined, which are in full implementation.

Integration: "I am a part". With the systematization of care behaviors, it is possible to have more predictability and efficiency. With integration, the records will be more efficient, with more objective and correct information. Tracking of exams, medications and products are also being performed.

Sustainability: Develop actions that seek balance and harmony in the use of material, human and social resources with a focus on sustainability.

Excellence in Teaching: Students are identified, thus ensuring access with security. The evaluation of intervention effectiveness increased the impact of learning, the waiting phenomenon, and the impact on customer satisfaction. Through funding from Finep (Financiadora de Estudos Projetos – Study Projects Funder), agreements with industries, generation of resources, expansion of field experiences and student experimentation.

Humanization: "The patient knows who I am and I know who he/she is." became the motto. There is predictability in the interventions, guidance and admission, since the process of humanized care is to welcome, comfort and console.

Internationalization: FMUSP assumed the strong commitment to develop the Institution Internationalization process at all levels (Undergraduate, Postgraduate and Research). Therewith, the number of FMUSP students who completed internships abroad and the number of foreign students who graduated from FMUSP have increased considerably.

Technology: Control and security in all actions. Constant evaluation of results in the incorporation of new technologies. Speed in the registration system, automation of exams and integration of information. International cooperation for the development of products and services. Implantation of the PISA project (Image Platform in the Autopsy Room) and the Bioinformatics Multiuser Nucleus.

One of the main objectives of the project is to value and empower the Institution's Human Capital, promoting a constant dialogue in order to reduce the hierarchical steps, valuing the sense of purpose associated with the mission of the System and the protagonism of individuals.

FFM participates in all discussions of the FMUSP 2020 Project and works to ensure that all its objectives are implemented.

HOSPITAL DAS CLÍNICAS DA FMUSP (CLINICS HOSPITAL OF THE UNIVERSITY OF SÃO PAULO SCHOOL OF MEDICINE)

In its 73 years of existence, the Hospital das Clínicas of FMUSP has been advancing and consolidating itself as a center of excellence and reference in the field of teaching, research and assistance.

Aerial view of Hospital das Clínicas, School of Medicine, USP (HCFMUSP)

The history of the Hospital das Clínicas of the Medical School of the University of São Paulo (HCFMUSP) began in 1915, with the signing of an agreement between the government of São Paulo and the Rockefeller Foundation for the construction of the headquarters of the School of Medicine and Surgery of São Paulo. Part of this agreement was the construction of a school hospital, for the improvement of students and free medical care for the needy population of the capital city and the state of São Paulo. The foundation stone of the School of Medicine building was set on January 25, 1928. Its inauguration took place on March 15, 1931, on the former Araçá Road, now Dr. Arnaldo Avenue. In 1938, the construction of the Hospital das Clínicas began. The HCFMUSP was created by Decree No. 13,192 of January 19, 1943. Since its official inauguration on April 19, 1944, it has been advancing and consolidating itself as a center of excellence and reference in the field of teaching, research and assistance.

The HCFMUSP is associated with the University of São Paulo, through the School of Medicine, for purposes of teaching, research and provision of actions and health services to the community. The purpose of HCFMUSP is to be Brazilian Reference Center to increase research, aiming at scientific and technological development.

The assistance activities promoted by the Hospital das Clínicas (Clinics Hospital) of the USP School of Medicine (HCFMUSP) are activities to promote health, the prevention of diseases, medical–hospital service and highly complex rehabilitation for users from the Universal Care System (SUS). In facilities that are increasingly modern and technologically equipped according to the most recent international quality guidelines, the assistance also counts on highly specialized and trained teams.

In recent years, the focus of HCFMUSP has been on people, prioritizing humanization in sectors. In this sense, the **Brilho nos Olhos** Project, aiming at improving the results and, at the same time, bringing more enthusiasm and satisfaction to all who work in the largest University Hospital Complex in Brazil and one of the largest hospitals in the Southern Hemisphere.

The strategic model adopted by the current HCFMUSP management was idealized in 2010, when a large group met at the Searching for the Future Conference. In this meeting, besides professionals linked to the FM/HCFMUSP System, there were also representatives from the government, other educational institutions, associations and the media. Vision 2020 represents the quest for a glorious outlook in the near future.

The expectations set out in the Searching for the Future Conference were divided into six guidelines: **1. Integration:** of the entire FM/HCFMUSP System. Improvement, appreciation and integration of teaching, research and extension processes; **2. Humanization:** in care and in all human relationships; **3. Sustainability:** economic and socio−environmental. Establishment of participatory governance and management; **4. Internationalization:** expanding the exchange with foreign knowledge and international recognition; **5. Excellence in Teaching:** undergraduate, postgraduate, residency and extension; and **6. Incorporation of new technologies:** in teaching, research and assistance.

The guidelines established in Vision 2020 became the basis of all actions to be carried out in the FM/HCFMUSP System as of 2011. The collective mobilization of the involved professionals allowed the creation of a new governance model.

In more than seven decades of strengthening the tripod Teaching, Research and Assistance, the Hospital das Clínicas, a school hospital of the School of Medicine of USP, reached a standard of excellence in public service, education and training of multiprofessionals in the health care sector, with vigor and respect.

Today, the HCFMUSP is composed by more than 24 thousand multiprofessionals, which dedicate their time to the primordial and quality Assistance.

Formed by eight Institutes − **ICHC** (Including the PAMB), **InCor**, **ICr** (Including ITACI), **InRad** (Including IRLM), **ICESP** (Including ICESP Osasco), **IOT**, **IPq** and **IMRea**; Two Auxiliary Hospitals − **HAC** (Future Institute Specialized in Alcohol and Illegal Drugs) and **HAS**; A unit specialized in the integral care of patients with HIV/AIDS − the **Casa da AIDS**; 62 **LIMs**, responsible for research activities in various fields of health; and the **Administration Building** −, gather today 106 operating rooms, in which are performed 47 thousand surgeries and 800 transplants per year, besides 60 thousand hospitalizations in its more than 2,500 beds.

The HCFMUSP Nucleus of Innovation and Technology (NIT), headquartered at the Institute of Radiology (InRad), was created in 2016 to gather health researchers, technology and related areas, investors and companies to develop state-of-the-art technology and applications for the health care field. It is within this environment that research projects in innovation are being developed through partnerships with Brazilian and foreign research centers, class associations, investors and companies. NIT has four different research verticals, which are considered priorities by its Executive Committee, namely: Hospital 4.0 (internet of things applied to hospital operation), Additive Manufacturing (3D printing), Assistive Technologies (focused on mobility and accessibility) and Radiology 4.0 (aimed at the automation of diagnostic imaging).

HCFMUSP also offers education to its employees and to the external public.

The Advanced Studies Program of Hospital Administration and Health Systems (**PROHASA**) was created in 1972, based on the partnership between HCFMUSP and the Business School of São Paulo of the Getúlio Vargas Foundation, for the training of hospital administrators and health care systems.

In 1992, it was included the improvement of health care administration − Professional Improvement Program (**PAP**), destined to higher level professionals, except doctors, being both programs modalities of *lato sensu* postgraduation.

The HCFMUSP School of Continuing Education **(EEP)** is the training and improvement center of the FM/HCFMUSP System, offering courses of various durations and levels of deepening, not only for doctors, but also for graduated health care professionals and technicians. Inaugurated in 2009, EEP acts in the technical area, with vocational courses and continuing initial training; and in the higher education, in the areas of diffusion, updating, improvement, specialization and professional refinement.

It is incumbent upon the FFM to receive the SUS and Supplementary Health Care payments due to HCFMUSP (with exception of the Heart Institute, InCor), through the University Agreement (page 17) and to strongly support HCFMUSP in its actions.

University Agreement

Since 1988, the FFM has maintained the University Agreement signed between HCFMUSP, FFM and SES-SP, whose main objective is the integral health assistance in the care of SUS patients.

The **University Agreement**, signed in 1988 between FFM, HCFMUSP and SES-SP, which is dedicated to the free care of patients from the Brazilian Universal Care System (SUS), including with the assurance of special procedures, such as transplants of different organs, various implants and other high complexity procedures.

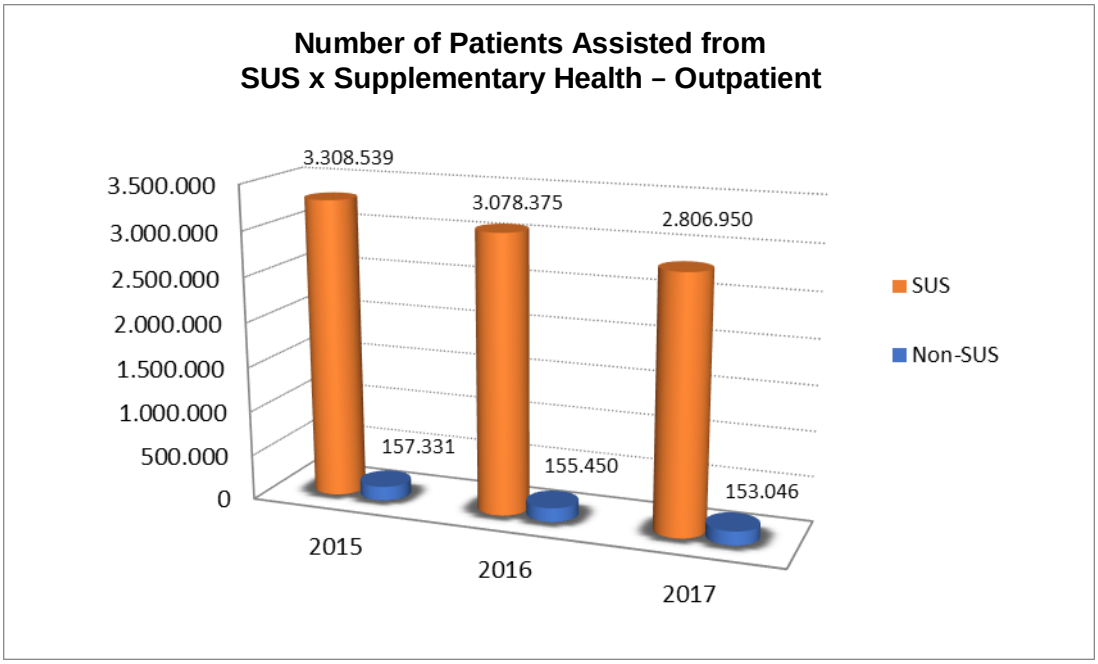
The access and care for SUS throughout HCFMUSP (except InCor) is ensured by FFM, through the allocation of human and financial resources of the System in the Hospital itself, thus enabling HCFMUSP to achieve levels of SUS care (ambulatory and admissions) in an average percentage of 95 %. The **number of patients attended** in the last three years is shown in the tables and graphs below:

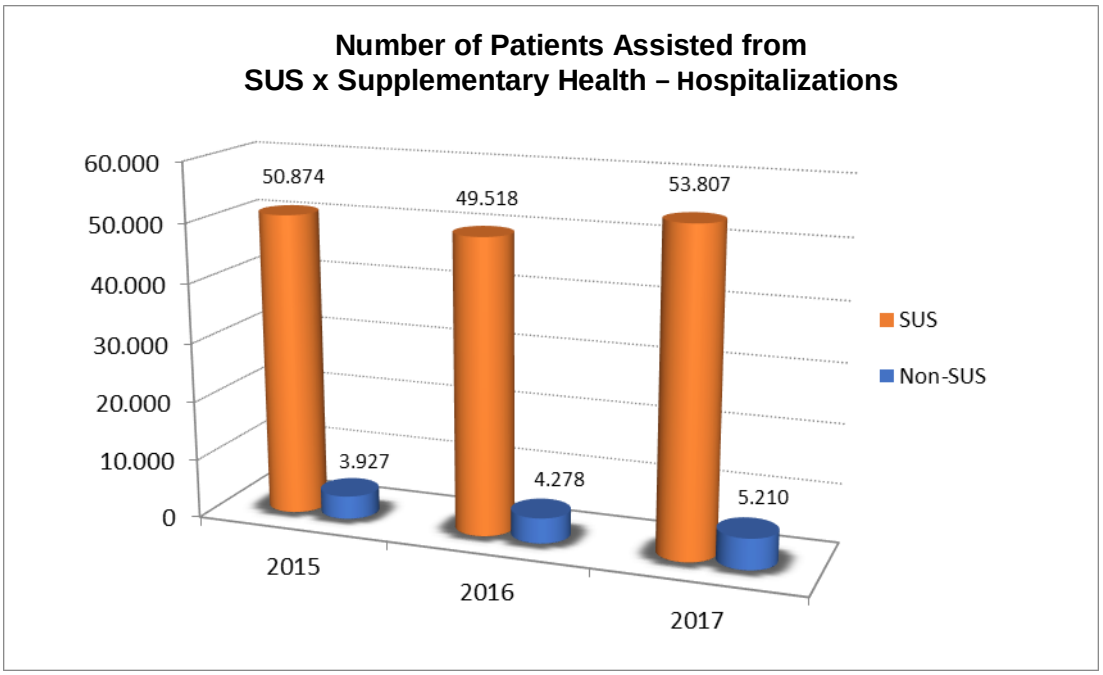
QUANTITY OF ATTENDED PATIENTS – SUS			
Type of Attention	**Time**		
	2015	**2016**	**2017**
Ambulatory	3,308,539	3,078,375	2,806,950
Admission	50,874	49,518	53,807
Total SUS	**3,359,413**	**3,127,893**	**2,860,757**

Obs.: The admission data refers to the first presentation

QUANTITY OF ATTENDED PATIENTS – SUPPLEMENTARY HEALTH			
Type of Attention	**Time**		
	2015	**2016**	**2017**
Ambulatory	157,331	155,450	153,046
Admission	3,927	4,278	5,210
Total Supplementary Health	**161,258**	**159,728**	**158,256**

QUANTITY OF ATTENDED PATIENTS – SUS + SUPPLEMENTARY HEALTH SUS REPRESENTATIVITY				
Patient Profile	**Type of Attention**	**Time**		
		2015	**2016**	**2017**
Total SUS + Supplementary Health	Ambulatory	3,465,870	3,233,825	2,959,996
	Admission	54,801	53,796	59,017
Grand total		**3,520,671**	**3,287.621**	**3,019.013**
SUS Representativeness	Ambulatory	95.5 %	95.1 %	94.8 %
	Admission	92.8 %	92.04 %	91.1 %


Number of Patients Assisted from
SUS x Supplementary Health – Outpatient
3.500.000
3.000.000
2.500.000
2.000.000
1.500.000
1.000.000
500.000
0
3.308.539
3.078.375
2.806.950
157.331
155.450
153.046
2015
2016
2017
SUS
Non-SUS


Number of Patients Assisted from
SUS x Supplementary Health – Hospitalizations
60.000
50.000
40.000
30.000
20.000
10.000
0
50.874
49.518
53.807
3.927
4.278
5.210
2015
2016
2017
SUS
Non-SUS

In the operationalization of the University Agreement, FFM's objective was to prioritize and continue to direct all its financial and human resources to the maintenance, in 2016, of the average index of 95 % of free procedures to SUS patients, according to the tables and graphs below, which demonstrate **how many procedures** were performed in 2015, 2016 and 2017:

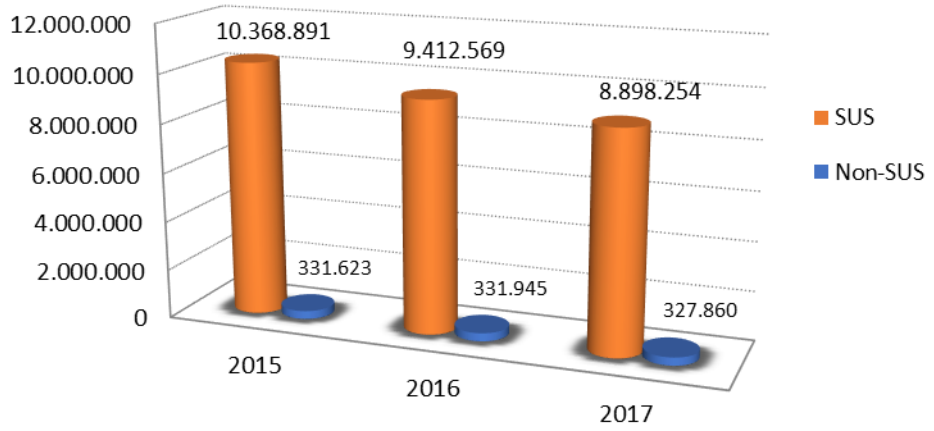
AMOUT OF ACCOMPLISHED PROCEDURES SUS PATIENTS			
Procedures	**Time**		
	2015	**2016**	**2017**
Outpatient Procedures	10,368,891	9,412,569	8,898,254
Authorizations for Hospitalizations	50,874	49,518	53,807
Total	**10,419,765**	**9,462,087**	**8,952,061**

Note: The data of Authorization of Hospitalization refers to the first presentation.

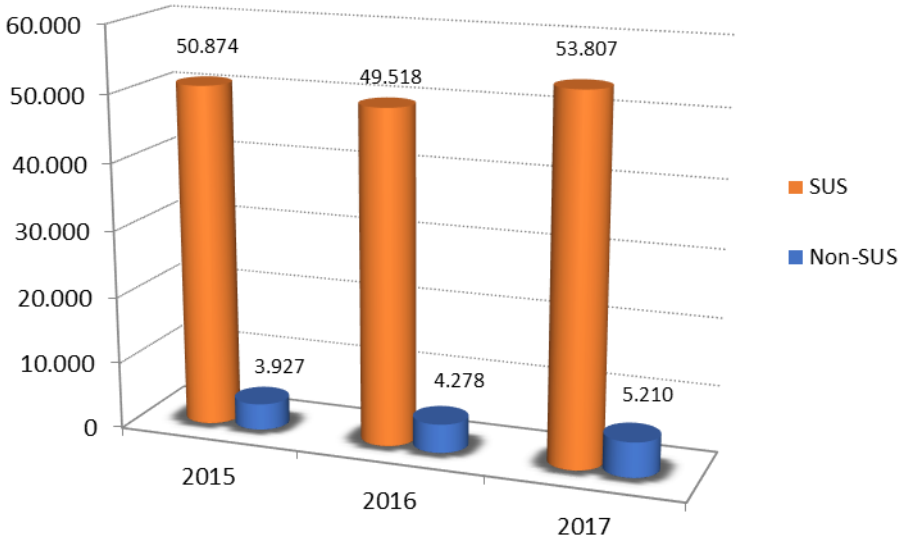
AMOUNT OF ACCOMPLISHED PROCEDURES PATIENTS FROM SUPPLEMENTARY HEALTH			
Procedures	**Time**		
	2015	**2016**	**2017**
Outpatient Procedures	331,623	331,945	327,860
Authorizations for Hospitalizations	3,927	4,278	5,210
Total	**335,550**	**336,223**	**333,070**

AMOUNT OF PROCEDURES CARRIED OUT – SUS + SUPPLEMENTARY HEALTH SUS REPRESENTATIVITY				
Patient Profile	**Procedures**	**Time**		
		2015	**2016**	**2017**
Total SUS + Supplementary Health	Ambulatory	10,700,514	9,744,514	9,226,114
	Admission	54,801	53,796	59,017
Grand Total		**10,755,315**	**9.798.310**	**9,285,131**
SUS Representativeness	Ambulatory	96.9 %	96.6 %	96.4 %
	Admission	92.8 %	92.04 %	91.1 %

Number of Procedures Made to
SUS Patients x Supplementary Health – Outpatient



Number of Procedures Made to
SUS patients x Supplementary Health – Hospitalizations



Special Procedures

In addition to conventional procedures and hospitalizations, FFM also supports the implementation of special procedures, such as transplants and implants, performed free of charge.

Transplants and Implants

In accordance with the objectives of the University Agreement, signed between FFM, HCFMUSP and SES-SP, the implementation of transplant and implant procedures is of great importance for the population and considered of strategical importance for the SUS service by the Ministry of Health. The number of transplant and implant procedures performed free of charge in the last three years through FFM was as follows:

STRATEGIC PROCEDURES – TRANSPLANTS AND IMPLANTS			
Description	**Quantity**		
	2015	**2016**	**2017**
Cochlear implant	108	93	103
Partial hepatectomy for transplant (live donor)	34	49	44
Unilateral nephroureterectomy for transplant	60	62	48
Allogeneic transplant of hematopoietic stem cells transplant from bone marrow – related	14	13	10
Allogeneic transplant of hematopoietic stem cells from bone marrow – not related	16	13	12
Allogeneic transplant of hematopoietic stem cells from blood from the umbilical cord – not related	1	–	–
Allogeneic transplant of hematopoietic stem cells from peripheral blood – not related	14	14	02
Allogeneic transplant of hematopoietic stem cells from peripheral blood – not related	8	6	04
Autogenic transplant of hematopoietic stem cells from bone marrow	6	4	06
Autogenic transplant of hematopoietic stem cells from peripheral blood	87	125	88
Corneal transplant	97	96	96
Corneal transplantation (in combined surgeries)	2	4	01
Corneal transplant (in reoperations)	5	–	08
Sclera transplant	0	4	02
Liver transplant (deceased donor organ)	94	101	109
Liver transplant (live donor organ)	36	56	49
Pancreas transplant	4	3	01
Kidney transplant (deceased donor organ)	174	142	158
Kidney transplant (live donor organ)	58	69	51
Concurrent transplantation of pancreas and kidney	5	7	05
Total	**823**	**861**	**797**

High Complexity Procedures

Among the various health care actions, we highlight the implementation of Ambulatory High Complexity Procedures, whose production of the last three years is shown in the table below

AMBULATORIAL DEMONSTRATION AUTHORIZATION OF HIGH COMPLEXITY PROCEDURES – APAC			
Description	**Quantity**		
	2015	**2016**	**2017**
Diagnosis in Clinical Laboratory	26,746	27,072	30,883
Radiology Diagnosis	46	61	106
Tomography Diagnosis (*)	409	1,746	1,732
Ultrasonography	4	5	27
Diagnostic Methods in Specialties	20,601	18,515	22,994
Appointments/Attending/Follow-up	8,238	8,889	7,585
Oncological Treatment	57,465	72,852	69,746
Nephrology Treatment	22,059	21,949	22,586
Dental Treatments	66	48	46
Specialized Therapies	1,752	1,279	1,168
Upper Respiratory Tract, Head/Neck Surgery	0	0	11
Eye Tract Surgery	5,008	4,209	4,627
Genitourinary Tract Surgery	253	235	236
Repair Surgery	943	818	769
Nephrology Surgeries	46	86	90
Small Surgery and Surgery of the Skin, Subcutaneous Tissue and Mucosa	0	01	0
Collection and Examination for Organ Donation Purposes	8,333	10,065	15,047
Post-Transplant Follow-up and Intercurrences	9,681	10,345	13,864
OPMs Not Related to Surgical Act	4,559	5,045	5,370
OPOs Related to Surgical Act	741	617	739
Tissue Processing for Transplantation	134	55	269
Clinical Treatments (other specialties)	3,477	2,042	1,767
Total	**170,561**	**185,934**	**199,662**

Note: (*) Procedure included in the SIGTAP table as of January/2015.

Integral Pharmaceutical Care

In line with the objectives of the University Agreement, signed between FFM, HCFMUSP and SES-SP, in comprehensive health care, pharmaceutical care is determinant for the resolution of health care and services.

The guarantee of supply of drugs of the Specialized Pharmaceutical Care Program (CEAF) is fundamental so as not to endanger the lives of patients, and to complement complex medical procedures and high cost, such as transplants.

In 2017, they were distributed, through FFM, **38,877,672 Units of CEAF medicines**, representing the value of R$ 28,501,071.00. The control of the delivering of CEAF medicines and the issuance of APACs are performed through the Hospital Information System – SIGH Prodesp.

In 2017, the HCFMUSP Pharmacy served more than 1,328,337 of outpatient prescriptions, with an average of 5,000 prescriptions per day. There is also a home delivery service that since 2013 has become free. About 65 % of outpatients receive their medication at home at no cost.

Located on the 8th floor of ICHC's PAMB, HCFMUSP has the largest hospital pharmacy in Brazil. Founded in the same year of the Hospital, 1944, today it counts with 294 employees, of which 59 are pharmacists.

Much more than a drug distribution center, there is a real factory, where medicines that do not exist in market are produced because these are medicines with no commercial interests. Dilutions and dosages other than those available on the market are also prepared therein, depending on the need of the patient, or compositions other than the traditional ones.

In 2017, the production of medicines generated savings of about R$8,128,606.36. Were produced 71 Types of drugs, with over 10.996 Million units, and 299 formulas (246,217 units) were customized and individually manipulated to meet medical prescriptions and patients' needs. The pharmacy also delivered 35 special drugs, produced for research protocols, in 36,758 units. In addition to the internally produced medicines, 326 different medicines were also acquired and unitized, totaling over 2.6 million units to meet inpatient prescriptions.

At present, the Hospital Pharmaceutical Unit (UFar) is working on the pharmacotechnical development of the drug ursodeoxycholic acid 300 mg tablet, in partnership with the Gastroenterology Clinic, which will provide an estimated savings of 40 % of the value spent on the acquisition of the pharmaceutical specialty.

It is also worth highlighting the development of the Pilot Project for the Movement of Medications through barcode, allowing the implantation of the identification of barcode psychoactive drugs, from the receipt, storage, distribution, unitarization and patient exit in the ICHC, to change the barcode usage culture.

In 2017, the implantation of the Electronic Patient Record (PEP) in the SoulMV took place, making possible the electronic prescription of drugs for 100 % of the patients hospitalized in the ICHC and improvement in the following pharmacy processes:

- Pharmaceutical evaluation of the prescription with the use of the pharmaceutical evaluation module, standardizing the registration of pharmaceutical interventions in the PEP.
- Registration of prescription drugs, standardizing the technical information to support the prescription.
- Collection of indicators with the development of the pharmacy panel, which provides information on prescriptions evaluated by the pharmacist and analytical cost of medicines.
- Distribution of psychoactive drugs to the patients upon request.

Also noteworthy is the publication of the book "Pharmaceutical Care − Management and Practice of Pharmaceutical Care" (Atenção Farmacêutica – Gestão e Prática do Cuidado Farmacêutico), of the ICHC Pharmacy Division, and the launch of the Pharmacy Information Center (CIM) Information Bulletin, in the monthly electronic newspaper "ICHC Report" (Informe ICHC).

Institutes, Auxiliary Hospitals and Specialized Health Units from the FM/HCFMUSP System

HCFMUSP COLLECTION

Aerial view of the Health Block, where more than 50 thousand people circulate daily

When acting in the care, HCFMUSP develops actions of health promotion, disease prevention, medical–hospital care and rehabilitation of high complexity to SUS users. At eight Institutes, two Auxiliary Hospitals and Specialized Health Units listed in the table below, assistance is provided in the most modern hospital facilities, with the support of highly specialized teams and a state-of-the-art technology park.

The FFM is responsible for receiving SUS and Supplemental Health payments due to HCFMUSP (with the exception of InCor), through the **University Agreement**, signed between FFM, SES-SP and HCFMUSP, since 1988, which enables comprehensive health care through the implementation of free procedures for SUS patients. On average, 95 % of the patients seen come from SUS.

The development of several Institutes, Auxiliary Hospitals and Specialized Health Units from HCFMUSP, in 2017, is summarized as follows:

PERFORMANCE OF INSTITUTES, HOSPITALS AND SPECIALIZED UNITS OF THE HCFMUSP IN 2017 – QUANTITY BILLED BY THE FFM

Institute/Hospitals	No. of Admissions	No. of Procedures	Procedures + Admissions	Qty. Admission beds (**)	Qty. ICU beds
ICHC + PAMB	35,143	7,217,438	7,252,581	797	156
InRad	–	321,488	321,488	08	–
ICr + ITACI	7,432	630,588	638,020	133	51
IOT	6,565	359,223	365,788	123	12 (*)
IPq	2,987	108,677	111,664	154	04
IMRea – Vila Mariana	119	140,345	140,464	30	–
Casa da Aids	–	19,999	19,999	09	–
HAS	1,131	2,832	3,963	120	–
HAC (under construction)	–	–	–	–	–

Note: (*) Two beds not yet published in CNES.

(**) In the number of beds above **it is not** included the ICU beds, which are highlighted in a specific column.

The following pages summarize the activities carried out in 2017, by these and other units of the FM/HCFMUSP System.

ICHC

Institutional Data:

Foundation: 1944

Built area: 166.6 thousand m^2

Employees: 6,052

Accreditations: ONA I, CAP, PALC 2013, ISO 9001, OHSAS 18001, ISO 14001 and Initial Seal of the Elderly-friendly Hospital Program

The **Central Institute of the Hospital da Clínicas (ICHC)**, the oldest of the HCFMUSP complex, concentrates 36 medical and multiprofessional specialties. It is composed of two interconnected buildings, the Outpatient Building (PAMB) and the Central Building − known for the large number of hospitalization and intensive care units, as well as the Referred Emergency Unit for cases of greater severity.

The 36-year-old PAMB houses the largest surgical center in the HC Complex, the Pharmaceutical Unit (page 22) and the Central Laboratory Division.

On June 10, 2017, the Geriatric Unit (SGHC−FMUSP) celebrated 35 years of quality in the care of elderly patients. SGHC−FMUSP is a pioneer in the national public service in dealing with issues such as sexuality disorders, among many others. Each year, an average of 10 thousand outpatient assistances are performed in 11 specific clinics, which not only offer consultation and follow-up, but also work to promote health and home care. The elderly population also has a healthy aging program, which emphasizes different physical activities and promotes lecture cycles. Another benefit is the guidance and clarification of the general public's doubts.

On December 15, 2017, the first baby from a deceased donor's transplanted uterus was born at HCFMUSP.

In addition to technological resources and constant structural renewal, the ICHC has also implemented a major humanization project, focused on the collective construction of ethical and technical commitments, which can be seen in actions for the patient care and the betterment of working relationships between the health care professionals. It is called Humaniza Network, coordinated by the Technical Humanization Center, which is formed by the Humanization Working groups present in the various instances of HCFMUSP.

The Waiting Room (Sala de Espera) project, of the Endocrinology and Metabolism Unit, aims to minimize the inequalities and differences of day-to-day clinical practices, in accordance with the Humanization Policy and Health Care and Management in the SUS. In this space, on October 4, 2017, some activities were promoted for young patients, while waiting for their care. The "Friends of the Red Nose Group", a partner of the ICHC Humanization Working Group, also participated in the party, distributing 512 toys donated by partners to patients in outpatient care and to those awaiting transportation in front of the Outpatient Building.

The "Friends of the Red Nose Group" distributed toys and interacted with the children and their caregivers in front of the PAMB

In 2017, the following actions and projects were highlighted:

- **Electronic Patient Record (PEP) – MV:** Implantation in all wards and intensive care beds, which allowed greater patient safety, facilitated internal communication and increased process efficiency.
- **Inauguration of the Corelab facilities of the Central Laboratory Division:** pioneering technology in the public health care in Latin America, consolidating in a single space the fields of Biochemistry, Hematology, Hormones, Immunology and Tumor Markers.
- **Reduction of waste through the distribution of materials in kits:** determination of the hospital medical material by procedure, with kits for all surgical specialties. This action has reduced peripheral inventory and errors in the supply chain.
- **Leadership Empowerment Program:** development of new leaderships based on the themes of the Leader's Book, through lectures and team coaching.

In 2017, through FFM, 35,143 hospitalizations and 7,177,438 outpatient procedures were performed by the ICHC, totaling **7,252,581 procedures and hospitalizations.**

InRad

Institutional Data:

Foundation: 1994

Built area: 13.1 thousand m^2

Employees: 545

Accreditations: ONA III and National Quality Program in Mammography (PNQM)

The Institute of Radiology (InRad) is a center of excellence and national and international reference in diagnostic and imaging therapy. Under the FM/HCFMUSP system, InRad demonstrates technological pioneering. Its resources are directed to outpatient care and hospitalized patients in the modalities of Radiology, Nuclear Medicine, Interventional Radiology and Radiotherapy. Being also part of the InRad, the Scientific Technical Nucleus of Image Diagnosis (NDI) is responsible for the coordination of Diagnostic Imaging Centers of the HC's institutes.

Since 2013, its facilities – which already housed state-of-the-art equipment for assistance, teaching and research, such as the magnetic resonance imaging of 7 Tesla, which produces molecular images of the human body – has undergone extensive renovation to modernize and expand technological resources for the promotion of teaching, research and assistance.

Today, there are two buildings: the **main one**, which concentrates the outpatient resources of conventional and interventional radiology and radiotherapy; the **annex**, which houses the Nuclear Medicine Center and InRad's Integrated Radiopharmaceutical Production Center (CinRad), a pioneer in the development of radiopharmaceuticals for treatment and research in oncology and neurology, a pioneer in South America.

The new Nucleus of Innovation and Technology of HCFMUSP (NIT), whose headquarters, located in the InRad, was officially opened to researchers in March 2017, has already begun to produce the first series of researches. Four lines of research have been proposed by InRad researchers, and some are being carried out with the new MR–PET equipment, which combines the diagnosis of nuclear medicine equipment that detects the flow of a radiopharmaceutical (radioactive contrast) in the human body, with magnetic resonance imaging.

This is the case, for example, of the study that is evaluating football players and boxers in order to analyze the impact of the sport on their brains. The intention is to evaluate the brain injuries caused by ball hits and headers in football players and by the boxing punches, which can lead to dementia in sportsmen.

PET–RM is also being used in a study on the rectum cancer. This group also conducts research on multiple sclerosis in animals, with PET–CT examinations, Nuclear Medicine technology combined with CT scanning equipment.

In the field of ultrasonography, a thyroid biopsy assessment is being developed with the shearwave elastography technique and comparison with samples collected in surgeries.

The study of the interventional radiology field, on embolization of the prostate for the treatment of tumors, also continues to be developed and is part of the NIT's project portfolio.

Located at the InRad, the Entrepreneur Room is part of the Technological Innovation Center

In 2017, the following actions and projects were highlighted:

- **Managed Certifications and Protocols:** the work focused on improvement of practices, efficiency of services and guarantee of safety and quality in the assistance provided the certifications ONA III and PNQM.
- **Management of Diagnostic Imaging Exams:** improvement in the patient's experience of scheduling imaging tests.
- **PET–RM:** InRad had access to the most modern image hybrid technology in the world, which is under development.
- **CDI – InRad and IOT integration:** situational diagnosis of the IOT's CDI multiprofessional processes, focusing on the development of the management model.
- **PAMDA Project – Program of Actions for the Environment Improvement:** the partnership with IMRea promoted the exchange of experiences and provided improvements in the work environment to avoid absences due to occupational diseases.

321,488 outpatient procedures were performed by the InRad, in 2017, through FFM.

IOT

Institutional Data:

Foundation: 1953
Built area: 22.1 thousand m^2
Employees: 1,085
Accreditations: ONA I

The **Institute of Orthopaedics and Traumatology (IOT)** emerged to host children who were victims of the acute anterior poliomyelitis epidemic (infantile paralysis) in the state of São Paulo in 1953. Today, the IOT is a reference in the care of patients with orthopedic and traumatological disorders, spinal cord injuries, limb reimplants, endoprosthesis or tissue bank reconstruction in large tumors resections on the continent.

In the IOT − which is divided into two buildings − outpatient and inpatient care are provided, as well as support for cases of greater severity with support from the Referred Emergency Unit.

On December 14, 2017, the 41st edition of the JATE − Annual Games of Sports Therapy took place at the Oswaldo Cruz Academic Athletic Association. The event, organized by the IOT, was attended by athletes/patients from the Cerebral Palsy and Sports Medicine.

Images of the 41st edition of the Annual Games of Sport Therapy

The IOT is one of the largest hospitals of Orthopedics and Traumatology in Latin America and one of the main research centers in Brazil. It is also a reference in the treatment of traffic accidents, which account for a large part of the emergencies attended at HCFMUSP.

In 2017, the following actions and projects were highlighted:

- **Electronic Patient Record (PEP) – MV:** greater patient safety and improved internal communication and processes.
- **Bed Sheet:** the new management optimized the use of beds and operating rooms by reviewing processes and using institutional tools (MV).
- **Participation of the International Meeting of the Nursing Process:** disclosure of work done by the IOT.
- **Costs Project:** methodology of analysis of sectoral expenses and revenues, which made possible a managerial evolution and significant savings.
- **Scholarships for investment in training and development of professionals:** dozens of employees received the allowance to attend the improvement courses.
- **Permanent Education Management System:** development of a computerized system responsible for the control of training, which strengthens the identification of training and development indicators.
- **"HC Way" Training – Focus on Quality of Care:** training on the concepts and standards defined by the Customer Service Manual published by HCFMUSP in 2014.
- **Nursing update in Orthopedics and Traumatology:** courses open to the internal and external public, to disseminate the work carried out by the IOT nursing and to spread knowledge.

In 2017, through FFM, 6,565 hospitalizations and 359,223 outpatient procedures were performed at the IOT, totalizing **365,788 procedures and hospitalizations.**

IPq

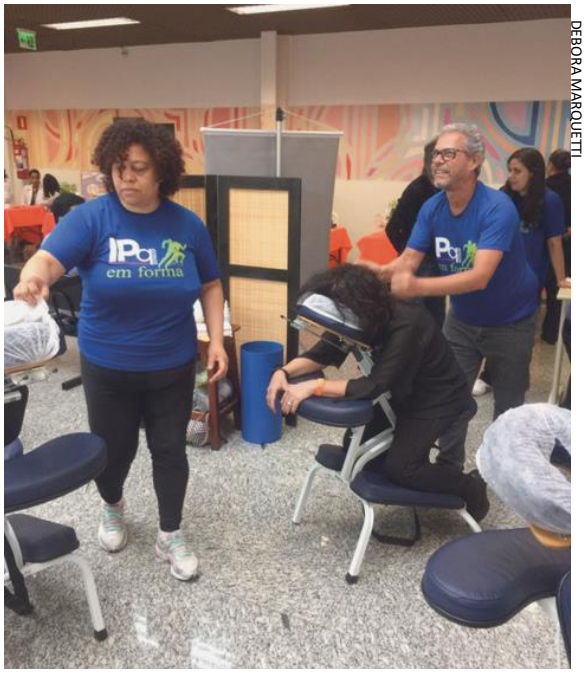
Institutional Data:

Foundation: 1952
Built area: 19.77 thousand m^2
Employees: 1,365
Accreditations: ONA II

The **Institute of Psychiatry (IPq)** is the largest and most well−equipped center of Psychiatry and Mental Health in Brazil. For 65 years, it combines science and sensitivity to deliver excellence in research, teaching and care.

After discharge, patients can follow the treatment in the day hospital or in the specialized outpatient clinics, including training programs and work reinsertion, which are critical for their social reintegration.

A pioneer in the creation of specialized groups and services, the Institute fully and comprehensively deals with the various types of psychiatric disorders and has a specialized hospitalization unit in children's psychiatry − unique in Brazil.



DEBORA MARQUETTI

IPq team promotes bioimpedance measurement and relaxing massage for patients and participants of the event "IPq Open Doors"

The IPq is also a reference in functional neurosurgery, a result of the joint effort of the multidisciplinary teams related to the different areas of neuroscience.

On September 29, 2017, the IPq received the community in its facilities for the event "IPq Open Doors". The 6th edition was dedicated to the "Yellow September", the month of suicide prevention. The event brought together, in a single day, specialists and IPq professionals for almost 160 lectures and other activities open to the population, with the aim of informing in a didactic and accessible way about mental disorders. For six years, the Institute has carried out this action, seeking to fight the stigmas and prejudices associated with psychiatric problems and to encourage people to seek specialized treatment. In addition to the lectures, which dealt with topics such as the women's mental health, psychiatric emergencies, children's games, alternative therapies, alcohol and drugs, among others, the event also had thematic booths, in which professionals clarified doubts from the population throughout the day.

In 2017, the following actions and projects were highlighted:

- **Ketamine Protocol:** implantation of a new safe and effective treatment protocol for patients with refractory depression.
- **Expression and activity of APP−secretases and GSK3B in human platelets and neuronal cultures: effects of treatment with donepezil and lithium:** edge research on the knowledge frontier of Alzheimer's disease.
- **National Institute of Biomarkers in Neurosciences (INBioN):** creation of preventive strategies for Schizophrenia, Bipolar Disorder and Alzheimer's Disease.
- **Sustainability Project of Supplementary Health Care:** creation of a team to manage service and attract new clients.
- **"Inspirational Leaders":** Workshop to improve and empower IPq leaders.
- "**HumanaMente" (Humanly) Program:** partnership with Radio Band News FM to bring information about psychiatry to listeners.

In 2017, through FFM, 2,987 hospitalizations and 108,677 outpatient procedures were performed by the IPq, totalizing **111,664 procedures and hospitalizations.**

Institutional Data:
Foundation: 1976
Built area: 23 thousand m^2
Employees: 1,471
Accreditations: ONA II

The **Children's Institute (ICr)** is a reference in tertiary and multiprofessional care from birth to adolescence and has humanization as one of its premises. Before the creation of the Child and Adolescent Statute (ECA), the permanence of the parents/guardians during the ICr hospitalization was already allowed.

It has 20 medical specialties and high diagnostic and therapeutic technology for care excellence, including: Emergency and Urgency, Intensive Care, Hospitalization, Outpatient, Day Hospital and Renal Replacement Therapy. Patients with chronic and complex diseases, rare syndromes, renal and liver transplants (including living donors) are cared for in the ICr.

I-HCFMUSP DISCLOSURE

The entire first floor has received the reproductions of Gustavo Rosa, which can be removed for cleaning

In a comfortable and child-friendly environment, with games, drawings and colors, in the hospital each child is treated in a unique way and professionals are trained to provide care and well-being for each patient.

The ICr has been developing a mature and consistent Humanization work, which combines high technology with the quality of care, respecting and valuing the rights and duties of patients, their subjectivity and cultural references. Today, the ICr has 12 Humanization programs, which involve actions aimed at the patient and his or her accompanying person and/or collaborators.

The ICr celebrated its 40 years with great color and joy. An initiative of the Gustavo Rosa Institute spread over two floors of the Institute a total of 120 works of the painter from São Paulo donated by the institute. With funny and colorful traces, the pictures depict diversified and out-of-standard human figures. The works are reproduced on an adhesive base, which allows them to be removed and repositioned on high durability plasticised paper that can be cleaned.

Located in an annex building, the **Institute for the Treatment of Childhood Cancer (ITACI)** is also part of the ICr (page 75). Inaugurated in 2002, it stands out as a center specialized in oncology and other haematological or rare diseases, as well as performing transplants in high-risk infants.

In 2017, the following actions and projects were highlighted:

- **De-hospitalization Program:** management optimization of hospital beds to increase the quality of life of long-term chronic patients and their relatives.
- **Brazilian Group for Childhood-Onset Systemic Lupus Erythematosus:** mapping of epidemiology, clinical manifestations, therapeutic management and impact on the patients' quality of life.
- **Survey of cohorts of different chronic diseases in follow-up at the ICr:** As a result, new strategies were developed to serve adolescents at the ICr.
- **Total Outsourcing of Patient Records Custody:** outpatient care with electronic health records and custody of all medical records in an outsourced company.
- **Improvement of Nursing Procedures Notes for Billing:** online system to improve records of nursing procedures.
- **Creative projects for the ICr:** employees have created projects to improve institutional processes.
- **Multiprofessional Residency:** professionals from the Children's Institute shared their knowledge to train new specialists and qualify the assistance.
- **Therapeutic Education of Health (ETS):** people-centered approach to improving the quality of life of patients and and their relatives.

In 2017, through FFM, the combined production of ICr and ITACI (page 75) was of 7,432 hospitalizations and 630,588 outpatient procedures, totaling **638,020 procedures and hospitalizations.**

IMRea

Institutional Data:

Foundation: 1975

Built area: 36 thousand m^2

Employees: 544

Accreditations: CARF

The **Institute of Physical Medicine and Rehabilitation (IMRea)** – formerly known as Vergueiro Professional Rehabilitation Division (DRPV) and Rehabilitation Medicine Division (DMR) – boasts multiprofessional teams and state-of-the-art technology, with the largest and most complete technological park in Latin America. The IMRea serves people with physical, temporary or permanent disability in a comprehensive and integrated way. Patient recovery is based on four pillars: physical, psychological, social and educational.

The IMRea seeks to pioneer the rehabilitation assistance through clinical research and technological innovations, with the development of evaluation strategies for patients and society.

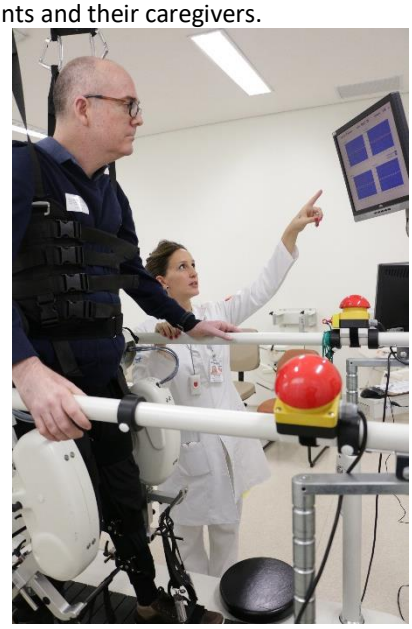
The objective of the IMRea HCFMUSP is to serve people with an incapacitating, temporary or permanent physical disability who require an integrated and comprehensive rehabilitation assistance, mobilizing a high-tech material and professional structure for the development of their physical, psychological, social, educational and professional potential.

The Rehabilitation Programs are organized, emphasizing the multiprofessional work, coordinated by a physiatrist and carefully developed by physicians, social workers, psychologists, physiotherapists, occupational therapists, speech therapists, nurses, nutritionists and physical educators. They are highly specialized teams, responsible for the planning and execution of specific treatments, valued by the constant development and incorporation of new technologies.

They also include experiences in therapeutic/cultural workshops, income generation and evaluation and professional training, with a view to professional and social inclusion, as well as the pursuit of excellence in Rehabilitation. The main deficiencies treated by IMRea are due to brain injury, spinal cord injury, amputations, neurodegenerative diseases, in addition to congenital malformations of the upper and/or lower limbs, cerebral palsy and/or delayed neuropsychomotor development, hemophilia, Down Syndrome and disabling benign pain.

The IMRea currently comprises five Units, distributed in the Greater São Paulo: IMRea–Vila Mariana, IMRea–Umarizal, IMRea–Lapa, IMRea–Clinics and IMRea Morumbi (IRLM – page 43).

The IMRea headquarters is located in the **Vila Mariana** neighborhood, in the south of São Paulo, and serves an average of 280 patients per day, as well as offering specialized exams and state-of-the-art equipment for treatment in its Robotics Laboratory and Neuromodulation, inaugurated in 2013. The Assistive Technology Lab also operates in this unit. It has a team of physiatrists and specialists in the fileds of: Urology, Cardiology, Neurology, Psychiatry, Radiology, Medical Clinic, Infectology, Occupational Medicine and Dentistry. It allows hospitalization, with rooms adapted to provide a humanized and comfortable admission to patients and their caregivers.



IMREA COLLECTION

Attendance at the Robotics Laboratory of the IMRea Vila Mariana

In 2017, the ambulatory production and hospitalization from SUS of the IMRea Vila Mariana, **billed through FFM**, was 140,345 procedures and 119 hospitalizations, totaling **140,464 procedures**.

In the neighborhood of Campo Limpo, also in the south, **Umarizal Rehabilitation Center** opened in 2001. It serves an average of **120 patients** per day in its many rehabilitation programs. It offers state-of-the-art technology, such as the Robotics Laboratory and Assistive Technology, which aims to develop the maximum potential of patients. It offers specialized outpatient clinics, such as Neuromuscular Blockade, Acupuncture, Dentistry and laboratories specializing in Electroneuromyography and Isokinetic evaluation.

After completion of the rehabilitation program, it is possible to participate in physical fitness activities to improve physical abilities and to introduce adapted sports.

In the western side of the city is the **Lapa unit**, inaugurated in 2007, which currently serves an average of **240 patients per day** in many rehabilitation programs, in addition to providing complementary activities after the physical rehabilitation program, among them: Physical Conditioning, Therapeutic Workshops, Generation of Income and Professional Training, within the Program of Rehabilitation, and Professional and Social Inclusion. The Institute also counts with specialized outpatient clinics, such as the Integral Care of the Person with Down Syndrome, which serves patients from zero to 18 years of age, with differentiated programs according to the age groups and the different stages of development, and Hemophilia. In this Unit also occur the activities of the Wheelchairs Technologies Center and management and development related to the delivery of Orthoses, Prostheses and Locomotion Auxiliary Means for patients in a rehabilitation program.

Inaugurated in 2008, the **IMRea Unit** is located within HCFMUSP and meets an average of **90 patients per day**, in diverse rehabilitation programs, which are sent by the community, Basic Health Units, Specialized Ambulatories, as well as HCFMUSP. It gives priority to the cases of greater complexity, such as brain injury, cerebral palsy and/or retardation of neuropsychomotor development, neurodegenerative diseases and musculoskeletal disorders, besides having specialized laboratories such as Eletroneuromiography and Neuromuscular Block Outpatient Clinic.

In 2017, the number of outpatient visits to **IMRea**, including medical and dental appointments, multiprofessional consultations and examinations, was **412,250** according to the table below:

INSTITUTE OF PHYSICAL MEDICINE AND REHABILITATION – ATTENDANCE IN 2017	
Attention Unit	**Quantity**
Vila Mariana	153,018
Umarizal	77,897
Lapa	125,678
Clínicas	55,657
Grand total	**412,250**

Regarding education, the Institute is responsible for medical training through the Regular Subjects: UC21 Rehabilitation and Semiology of the Locomotor System II; and the Optional Subject: Principles of Physiatry, taught to FMUSP students. In 2017, the IMRea was responsible for medical residences (30 doctors) and multiprofessional (8 professionals), in addition to receiving medical trainees from other countries.

It also works in the training of professionals specialized in rehabilitation at the level of Graduation, Post-Graduation and Specialization Courses. It also carries out several courses and short-term events related to capacitation, training and updating to hundreds of interested people or students.

In September 2017, the IMRea was designated the PAHO/WHO Collaborating Center for Rehabilitation. As a result, the IMRea became part of a select network of institutions that contribute to achieving the strategic objectives of the PAHO/WHO.

The year 2017 was also marked by the launch of the "WHO Recommendations for Strengthening Rehabilitation in Health Care Systems". At the same time, "Rehabilitation 2030: a call to action" sealed the commitment of numerous agencies of the UN System, international professional societies and institutions around the world to ensure the advancement of rehabilitation, by the year 2030. Also within the WHO, the IMRea was part of the organizing committee of the first World Conference on Research, Teaching and Innovation in Assistive Technologies.

In the education field, the IMRea has once again hosted the Winter School on Physical and Rehabilitation Medicine, a holiday course for undergraduate medical students who are interested in the area of Physiatry. In May, the IMRea held a Latin American Symposium on Rehabilitation and Assistive Technologies in partnership with the State Office for the Rights of Persons with Disabilities.

As for the activities related to the development of scientific research, in 2017, 13 research projects were initiated and 11 scientific publications were carried out in indexed national and international journals, as well as the advisory of researches in master's, doctorate and PhD's studies. In addition, combined with other entities, the IMRea publishes the *Acta Fisiátrica* Journal on a quarterly basis, and in 2017, 20 articles were published. Another highlight of IMC's CPC is participation in national and international events.

Institutional Data:

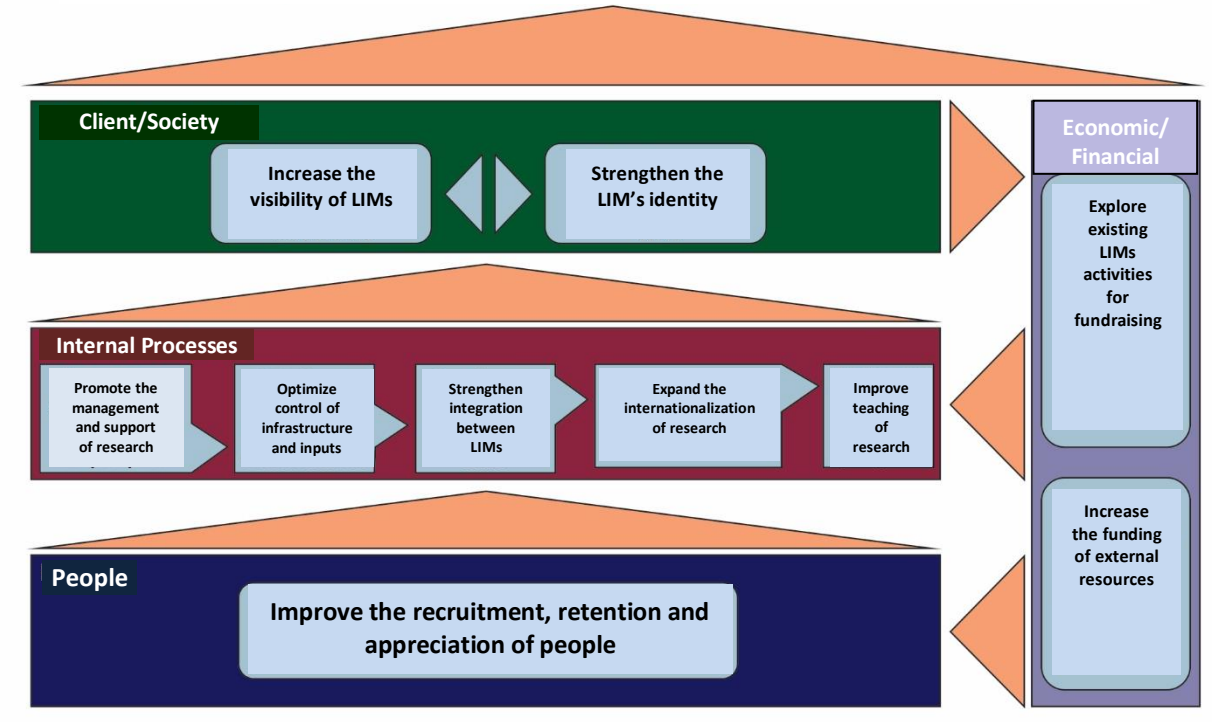
Foundation: 1975
Units: 62
Employees: 1,300
Scientific Articles: 1,600/year

Founded in 1975, through an agreement between FMUSP and HCFMUSP, and incorporated into the HCFMUSP structure in 1977, the Medical Research Laboratories (**Laboratórios de Investigação Médica – LIMs**) are aimed at the development of scientific research in its various modalities and the standardization of new diagnostic techniques and methods. In addition, they promote the training of researchers in basic and applied research, serving as a field of education, development and training for health professionals and students of higher education and conducts courses in the areas of medicine and health.

In 2016, the process for the Strategic Planning of the LIMs began and was supported by the staff of the Planning and Management Center of ICESP for the application of the work methodology, based on the CANVAS model. As a result of the work, carried out between 2016 and 2017, a strategic map was established that defined ten working groups, each of which is responsible for defining and executing plans related to a specific strategic objective of the map and guided by the "Vision of Future" defined for LIMs (figure below). These groups have met periodically and have the participation of more than 60 employees linked to LIMs and FMUSP.

STRATEGIC MAP OF LIMs

VISION OF THE FUTURE: "To increase the international impact of our scientific production by 20 % by fostering research, innovation and training of human resources and to promote greater visibility for society of the medical and social relevance of our activities until 2021"



The planning of LIMs was based on the need to improve the communication and dissemination of the work done within the laboratories. This challenge is divided into two parts: to gain space in the academic field for scientific research to have an increasing impact on a global scale and to show the population how discoveries made in LIMs can improve people's lives.

The first step of this ambitious plan is to conquer more space in international publications to show the world the discoveries made in LIMs. In addition to the publication of an article, the goal is to be addressed at international events and in books. Thus, researchers from all over the world will be able to benefit from the findings made at HCFMUSP and continue great studies.

In addition to impacting the scientific community, strategic planning projects communication with those most likely to benefit from the findings made in HCFMUSP LIMs. The focus is to show that these discoveries can change lives. For example, a research that modifies a surgical procedure and reduces in two-thirds the patient's hospitalization time.

The FM/HCFMUSP system is composed of approximately 1,500 professionals, distributed in its various unit, developing research projects in the most diverse areas of science as teachers, supervisors of the graduate programs and researchers who sent their research projects for the assessment of the CAPPesq (Ethics Commission for the Analysis of Research Projects).

With researchers who develop projects in basic and clinical areas, they are investigated from mathematical models for understanding cancer biology or epidemiological investigations, to new therapies (cell therapy, generative medicine, immunotherapies, directed targeted therapies, etc.).

The FM/HCFMUSP System leads initiatives that seek the development of several areas of important social impact, such as Medical Biotechnology, Biomedical Engineering and Information Technology for Health, including the Telemedicine area.

With numerous research projects funded by national and international agencies, LIMs' research groups today occupy an unquestionable position in scientific leadership in medicine and related fields, producing annually more than 1,600 scientific articles in indexed journals and introducing diagnostic approaches, therapeutic and preventive measures for the most diverse medical conditions.

In order to stimulate the research and innovation activities of the FM/HCFMUSP System, the FMUSP Board and the LIMs Executive Board created the Multiuser Equipment Network Program (PREMiUM) (page 115). The program, launched in 2006, enabled the deployment of decentralized cores, equipped with the most modern technologies and organized in the form of a network, making them accessible to researchers in the System and beyond. At the same time, it made it possible to optimize the application of specialized financial and human resources. Currently the PREMiUM Network has 35 registered centers, which houses about 50 specialized equipment, in addition to the auxiliary equipment, allowing the provision of services such as publishing, storage of Biobank samples, services of microscopy and image, DNA sequencing, among others. The complete list of equipment and services available on the PREMiUM Network can be found at http://www.premium.fm.usp.br/index.php.

LIMs do not have their own building and the Laboratory Units are distributed through the various buildings of the FM/HCFMUSP System, the Instituto Oscar Freire and the Tropical Medicine Institute of USP, remaining in a higher concentration (42 units) located in the Central Building of FMUSP.

Results of the research activities developed by its professionals project the institution in the scientific environment and position it as a national reference. As an example of this image, the participation of researchers of the institution in the National Institutes of Science and Technology Program (Programa Institutos Naionais de Ciência e Tecnologia – INCT), launched in July 2008, stands out. From the 115 National Institutes of Science and Technology of the State of São Paulo, five are located in the FM/HCFMUSP System and linked to LIMs. They are: National Institute of Science and Technology in Medicine Assisted by Scientific Computation (Instituto Nacional de Ciência em Medicina Assistida por Computação Científica – INCT–MACC); National Institute of Developmental Psychiatry (for Children and Adolescents) (Instituto Nacional de Psiquiatria e Desenvolvimento – INPD); Institute of Immunology Research (Instituto de Investigação em Imunologia – III); National Institute for the Development of Research in Alzheimer's Disease and National Institute of Biomarkers in Neuropsychiatry (Instituto Nacional de Biomarcadores em Neuropsiquiatria – INBioN). In addition to these, the INCT for Integrated Environmental Risk Analysis has been in operation since 2008.

Auxiliary Hospital of Suzano

Institutional Data:

Foundation: 1960
Built area: 19 thousand m^2
Employees: 458
Accreditations: ONA I

The **Auxiliary Hospital of Suzano (HAS)** has a form of care focused on long-term patients. This specialty makes this institution a fundamental arm of HCFMUSP in the Greater São Paulo area.

The multiprofessional teams that attend the HOS receive adults and children in different stages of disease. The goal is to restore the patient functional capacity and reduce the impact of multiple sequelae.

The year 2017 marks the expansion of the HAS, thanks to the construction of a new building and the renovation of an existing one. At the end of the works, there will be an increase in the capacity of care and in the amount of diagnostic and therapeutic resources available. This year, the institution also won the important ONA accreditation, which validates the SA safety criteria.

HAS DISCLOSURE

Aerial view of the Auxiliary Hospital of Suzano's gardens (HAS), which functions as an auxiliary unit of hospitalization for the Institutes of HCFMUSP

In 2017, the following actions and projects were highlighted:

- **Customized therapeutic plan:** individualized care program conducted by the interdisciplinary team.
- **Acupuncture and needle for analgesia:** procedure focused on myofascial pain. This initiative has increased the quality of work and therapeutic collaboration with the patients.
- **Deployment of the blue code:** improvement of the activation time of the team, to guarantee the attendance of urgencies and emergencies.
- **Hospital accreditation:** establishment of guidelines and optimization of processes led the HAS to gain the ONA I accreditation.
- **Mirroring Project:** implementation of monitoring systems for adult patients in bedside ventilation enabled 100 % visualization of the monitors through mirroring.
- **Delivery and occupation of building C:** transfer of patients from building A to building C.
- **Process mapping:** course to analyze and improve internal processes, to increase safety and quality of patient care.
- **Leadership training:** the leaders were able to extend their knowledge in people management, focusing on workforce development and conflict management.

In 2017, through FFM, 1,131 hospitalizations and 2,832 outpatient procedures were performed, totaling **3,963 procedures and hospitalizations**.

Auxiliary Hospital of Cotoxó

In 1971, the **Auxiliary Hospital of Cotoxó (HAC)** was created with the important mission of supporting the HCFMUSP Institutes. The hospital – located in the district of Pompeia, in São Paulo – offers specialized medical-hospital assistance to patients of intermediate care, through an integrated multiprofessional team.

Currently, the HAC is undergoing a process to increase its installed capacity. The reform, which will be completed in the coming years, will enable the introduction of modern resources in diagnostic and therapeutic procedures, as well as new spaces dedicated to teaching and research in health care.

In its new phase, the institution will also have two new divisions: the Center for Teaching and Training of Human Resources and the Collaborating Center for Alcohol and Drugs. The latter is the result of a partnership with the National Office for Policy on Drugs (Senad), linked to the Ministry of Justice. This Alcohol and Drugs Center will be managed by the IPq and will have beds for hospitalization, day hospital, areas dedicated to teaching and family care of patients.

Casa da Aids

The **HCFMUSP Extension Service for the Care of HIV/AIDS Patients – Casa da Aids**, the Division of Infectious and Parasitic Diseases of the HCFMUSP, inaugurated in 1994, develops teaching, research and assistance activities for HIV/AIDS patients and has administrative support Of FFM since 2004.

Since September 2014, it works in the premises of the Pinheiros Health Center of SES-SP, where it provides outpatient care to approximately 3,200 adult HIV patients. There are 53 collaborators in a multidisciplinary team of infectologists, gynecologists, psychiatrists, nurses, psychologists, pharmacists, nutritionists, social workers, dentist surgeons, nursing and administrative support staff. This team develops a policy of care for people living with HIV – a work that counts –, in addition to the technical and scientific coordination of our Division of Infectious Diseases, with an agreement that was established between FFM, SES-SP and HCFMUSP for funding these activities. This partnership also calls for HIV prevention and diagnosis, testing for the virus and other infections, such as hepatitis and syphilis, which may be sexually transmitted.

In the **teaching** area, in 2017, the following stand out:

- Development of classes and activities of the League for Prevention of HIV/AIDS of the FMUSP CAOC.
- Lectures given to the students of the third, fourth and fifth years of the medical undergraduate of FMUSP, in the context of the set of Subjects of Communicable Diseases and hospital internship in Communicable Diseases.
- Development of practical activities of the Medical Residency Program in Infectology of FMUSP during its three years of training – R1, R2 and R3, as well as optional internships for Gynecology Residents of FMUSP.
- Development of the activities of the Hospital Psychology and Social Service Improvement Program related to HCFMUSP HIV Infection.
- Completion of FMUSP Post-undergraduate discipline – Control of Sexually Transmitted Infections.
- Development of activities of Continuing Education to the workforce that acts in the Service.

In the field of **research**, stand out, among other activities:

- From the SEAP HIV/AIDS medical team, three received a PhD from the Graduate Program of Infectious and Parasitic Diseases of FMUSP and three are enrolled in the Doctorate course of the said Program.
- Oral presentation of the research project results involving people – victims of sexual violence – at the 23rd Congress of the World Association for Sexual Health held in Prague, Czech Republic.
- Poster presentation of the research project on susceptibility to hepatitis A virus infection in a person with sexual compulsion at the 23rd Congress of the World Association for Sexual Health held in Prague, Czech Republic.
- Poster presentation of research projects on yellow fever vaccination at the Congress of the Tropical Medicine Society.
- Presentation of projects developed in SEAP HIV/AIDS by the multidisciplinary team in the Scientific Journey of the Division of Infectious and Parasitic Diseases of the HCFMUSP: Prevalence and factors associated to neurocognitive changes in patients infected with HIV-1/AIDS via vertical transmission; The Importance of Pharmaceutical Guidance in HIV/AIDS Patients in a Specialized Unit and Nursing Practice for Extending the Testing of Tuberculin in HIV Unit.

In the **Care** sector, we highlight the multidisciplinary projects of prevention, with application of the rapid test for diagnosis of HIV, viral hepatitis and syphilis; adherence to antiretroviral treatment; follow-up of young people living with HIV transferred from ICr of HCFMUSP; and HIV/Hepatitis co-infection, mental health and tuberculosis in patients living with HIV.

The risk of people living with HIV to developing tuberculosis is nearly 30 times higher than those without HIV. One of the preventive measures to reduce the disease by tuberculosis is the application and screening of the tuberculin test, previously called PPD. In 2017, 611 tuberculin tests were applied, 81 % more than in the previous year.

On December 1, 2017, the World Day Against HIV, the AIDS House (Casa da AIDS) held a rapid HIV testing unit in the Largo da Batata of the São Paulo City Hall. The public service was held from 9:00 a.m. to 4:00 p.m. The test consisted in the collection of oral mucosa secretion with a cotton stem and the result was obtained in 30 minutes. In this space, 225 HIV tests were applied, and 4 (1.8 %) positive results were verified, which were promptly accepted for follow-up at the HCFMUSP AIDS House for access to antiretroviral treatment. This year also SEAP HIV / AIDS was selected among the six units of the Municipality of São Paulo to integrate the PrEP distribution network − Pre-Exposure Prophylaxis, a preventive method that consists of a tablet with active principles that prevent the infection by the virus, to be taken daily. This prevention strategy will be available in the SUS from 2018 and is part of a set of combined prevention options against HIV.

DEBORA MARQUETTI

The Largo da Batata in Pinheiros hosted the SEAP team on the World Day Against HIV

In 2017, through FFM, **19,999 outpatient** procedures were performed and 1,011 HIV rapid tests were applied, with the identification of 2.9 % with positive result.

Other Health Units

FFM also develops actions to improve other Health Units and Centers, outside the HCFMUSP area, also intended for the free care of SUS patients.

Butantã School Health Center

The **Samuel Barnsley Person's School Health Center (Centro de Saúde Escola Samuel Barnsley Pessoa – CSEB) – CSE Butantã** is a teaching and care unit of FMUSP, under the responsibility of the Departments of Preventive Medicine, Pediatrics, Medical Clinic and Speech Therapy, Physiotherapy and Occupational Therapy (Departamentos de Medicina Preventiva, Pediatria, Clínica Médica e Fonoaudiologia, Fisioterapia e Terapia Ocupacional – FOFITO), to the population of Butantã.

DIVULGAÇÃO CSEB

Since 1977, the CSEB has contributed to the development of primary health care practices in Brazil, especially through its in–service training and research activities.

CSEB's mission is to develop, in a perfectly integrated way, teaching to medical, nursing and phonoaudiology graduates, resident physicians and other health professionals. In addition, to develop lines of research related to teaching projects and innovative technologies in primary health care. Furthermore, to offer quality health care to the population of the CSEB area in the areas of health promotion, disease prevention and health care.

The CSEB offers CONFAD (Difficult Family Conflicts) to women aged 12 years and older, living in the geographic area of the District of Butantã, to offer women in situations of violence an attentive and qualified listening of their problems, informing about the services that are part of the network and supporting the woman in the transformation of the situation of violence, especially in the home-family situation. CONFAD also seeks to give visibility to the aspects of gender inequality involved to human rights and to the repercussion of violence on health.

The work of the CONFAD consists of one-hour meetings (at most four meetings), where woman talks about her situation and is supported and oriented about the specialized services available to meet her needs, seeking to establish a plan for overcoming the situation, in a shared way.

In 2017, through the FFM, the CSEB made **8,736 outpatient procedures.**

NGA Várzea do Carmo

Through Agreements signed between FFM, HCFMUSP and SES-SP, the HCFMUSP Clinical Gastroenterology Service, the HCFMUSP Clinical Gastroenterology Service has been responsible for the Endoscopy and Hepatology Service of the Assistance Management Center, **(NGA) Várzea do Carmo**, an SES specialty outpatient clinic in São Paulo Downtown, since 2010. The service has filled a gap in the care of secondary patients by the SUS, solving most of the cases and referring the more complex cases to specialized treatment at HCFMUSP.

The Várzea do Carmo outpatient clinic is a reference for 39 municipalities in Greater São Paulo. The cases are referred from primary care services, such as AMAs, UBSs and emergency care hospitals.

In 2017, the HCFMUSP Gastroenterology Service performed **22,520 calls**, with 10,369 examinations and 12,151 consultations.

Instituto Emílio Ribas

The **Institute of Infectious Diseases Emilio Ribas (Instituto de Infectologia Emilio Ribas – IIER)** was one of the first public health institutions in São Paulo, and it was inaugurated on January 8, 1880.

In 1932, the Hospital was renamed "Emílio Ribas" Isolation Hospital. The nine-storey hospital was inaugurated in 1961.

In June 1991, the Hospital was transformed into Emilio Ribas Institute of Infectology.

The IIER has its important participation as a major center for the treatment, diagnosis and treatment of infectious diseases and for the control of epidemics in the State of São Paulo and Brazil.

Alongside the assistance activity, it is a reference center for teaching and research, contributing to the training and qualification of health professionals.

In 2014, an agreement was firmed between FFM, HCFMUSP and SES-SP, aiming at the Execution of the IIER Management, Actions and Services Operation Project, which expired in 2014.

In 2016 and 2017, new agreements were signed for the execution of laboratory services.

Management Contracts

The Cancer Institute of the State of São Paulo (ICESP) and the Lucy Montoro Rehabilitation Institute (IRLM) base their management on the Social Health Organization (OSS) model through FFM.

In 2008, the Fundação Faculdade de Medicina (FFM) was recognized as a Social Organization (a private non-profit organization whose activities are directed to teaching, scientific research, technological development, protection and preservation of the environment, culture and/or health, receiving this title from the Public Administration and authorized to conclude with it management contracts to perform services not exclusive to the State). From then on, it began to play an important role in the management of some public institutions that are detailed described below.

Management Contract of the Cancer Institute of the State of São Paulo – ICESP

Since its founding in 2008, the Octávio Frias de Oliveira Cancer Institute of the State of São Paulo (ICESP) has counted on the participation of FFM in its management and operation process. In compliance with the requirements of the current legislation regulating social organizations – the category in which the FFM is inserted – the juridical configurations of this partnership have undergone constant adjustments, always aiming for greater transparency and efficiency in relations, within which it determines its status as a Support Foundation to FMUSP and HCFMUSP.

With the creation of ICESP, in 2008, a management contract was signed between the State of São Paulo, through SES-SP, and FFM, qualified as a Social Health Organization (OSS), in order to regulate the development of actions and services of ICESP. Thus, from 2009, FFM became responsible for the management of the new Institute.

In 2011, Complementary Law No. 1160 was promulgated, which transformed HCFMUSP into a special regime autarchy. As a result, ICESP was included among HCFMUSP hospital units, and the administrative regime changed, since ICESP was previously directly subordinate to SES-SP.

The new juridical configuration of HCFMUSP made the relationship between FFM and ICESP become Intervening, in an agreement signed between SES-SP and HCFMUSP, aiming at the operationalization of the Institute's actions and services. The agreement was extended annually from 2014 to 2016.

In 2016, the State Attorney General's Office (PGE) analyzed the legal possibility of HCFMUSP contracting, based on Article 6 of Complementary Law No. 846/98, an OSS for the management of ICESP. As the Government can conclude management contracts with social organizations, it was understood that the municipalities linked to the health sector (belonging to the Government) could avail themselves of this prerogative and considered it possible for ICESP to be the target of this kind of management.

The hiring process involved the opening of a call for public convocation of the social organizations interested in the management of ICESP that determined all the necessary specifications for these guidelines to be contemplated. FFM was the social organization selected, and a new Management Contract was signed, starting in 2017.

ICESP was conceived as a teaching hospital and research development center. It specializes in high complexity care and is equipped to provide comprehensive care to the oncological patient of the public health care system (SUS), from the center of care to oncological complications, outpatient clinic, day hospital, chemotherapy, radiotherapy, hospitalization units, intensive care, surgical center and rehabilitation center.

ICESP is recognized internationally for its high quality and safety practices. In addition to the care provided in its main building, it also has an outpatient pharmacy and a unit in Osasco for consultations and clinical treatments.

In 2017, it invested in process innovation, new technologies, scientific research, teaching, employee training and education and patient safety, ensuring not only the quality of services, but humanization, one of the differentials among large public and private oncology centers.

Thousands of patients from the Unified Health System (SUS) go through the Cancer Institute every year. The numbers reflect an astounding and highly representative assistance production, as shown in the table below:

SUMMARY OF ICESP'S SERVICE IN 2017	
Accomplished Procedures	**Qty.**
Doctor's appointments	227,888
Chemotherapy sessions	48,558
Radiotherapy sessions	54,994
Surgeries	8,336
Multiprofessional consultations	130,664
Hospital Outings	20,372
Emergency Calls	28,622
Total	**519,434**

Since its foundation, ICESP has established as a guideline to be a reference in high-quality patient care in the Unified Health System (SUS). Initially, the Institute adopted the guidelines of the National Accreditation Organization (ONA), which certified ICESP as ONA 1 (2010) and ONA 2 (2011). In order to achieve the re-accreditation of the Joint Commission International (JCI), the Institute was evaluated on the 1163 measurement elements established as criteria for compliance with international standards of excellence in quality and safety. Thus, over the years, the Institute has achieved important seals and accreditations, summarized below:

Dec/2010 – Level 1 Accreditation by the National Accreditation Organization (ONA);

Dec/2011 – Level 2 Accreditation by the National Accreditation Organization (ONA);

Apr/2014 – Adhesion to the Friend Seal of the Elderly;

Sep/2014 – Certification by the Joint Commission International (JCI);

Nov/2014 – Recognition by the Accreditation Program of Clinical Laboratories;

Jan/2015 – Rehabilitation of ICESP accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF), a Canadian institution;

Sep/2015 – Intermediate level of the Friend Seal of the Elderly;

Sep/2016 – Full level of the Friend Seal of the Elderly;

Jul/2017 – Recertification by the Joint Commission International (JCI);

Nov/2014 – Recognition by the Accreditation Program of Clinical Laboratories;

Jan/2018 – Rehabilitation of ICESP re-accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF), a Canadian institution.

In 2017, major events and technological acquisitions took place, keeping ICESP in line with the market developments and contributing to society. The Institute also understands that educational and social marketing campaigns are a social responsibility. One believes that this approach with the public is essential for building a healthier community. Based on this proposition, interactive actions were carried out in order to disseminate safe and relevant information that favors the prevention and early diagnosis of cancer, as well as encouraging the adoption of healthy habits and sports practice.

On May 4, the **laser fluorescence system**, unique to SUS and the country's private network, was inaugurated at ICESP, which will help surgeons to better map the patient's circulatory system during surgery, allowing immediate identification of blood supply areas, in addition to offering the surgeon more precision in decision-makingduring tumor removal and plastic reconstruction. Laser fluorescence works by emitting a laser that excites atoms, increasing their energy, which is emitted as light. It acts as a GPS system, guiding the surgeon through the areas where it is lighting up with green and which maps the lymph nodes responsible for the spread of the cancer through the body. The system also helps reduce bleeding, the risk of infection and necrosis, and allows for a faster recovery of the patient. With investments of R$5.3 million, the equipment was financed through PRONON program from the Ministry of Health (page 68).

In order to ensure traceability and safety in the administration of medicines, ICESP has implemented the **electronic check of medical prescription** at the bedside, which controls, by

computer and in real time, the application and medication to inpatients. The system ensures the traceability of the drug until the administration phase in the patient.

Physical activity is a key component in the patient rehabilitation process. Bearing this in mind, the **Remama Project** was created − a pioneer in the use of paddle in the rehabilitation of patients with breast cancer. Women who have undergone surgery or chemotherapy sessions at ICESP have the opportunity to take part in a training program with paddling exercises, performed at the ICESP Rehabilitation Center, and later at open air, at USP's Olympic Rowing Lane.

After a cancer patient returns home, his family members must face a new care routine, which may include handling devices such as probes and catheters. The increase in the number of intercurrences with these equipments gave the boost for the creation of practical classes for carers during the week. For this purpose, high-technology robots are used that simulate situations experienced on a daily basis, such as tube feeding. The program titled **"Teaching to care"** offers clarification on topics such as management of intestinal stomas, prevention of falls and fractures, enteral catheter care, drainage care and tracheostomy care. The trainings are carried out at ICESP's Realistic Simulation Center in Health (CSRS) and transmitted live by Facebook on the ICESP page. The project has a multidisciplinary team that participates with the class group and identifies specific needs of the caregivers, thus conducting a specific follow-up that will help both the patient and the family member.

On May 21, the **ICESP Run** − run promoted by ICESP, in the region of the Pacaembu stadium − was held. The runners covered 5−10 km routes, and hikers, a 5 km one. One of the great goals of the race is to encourage sports practice and the importance of healthy habits in cancer prevention. Physical exercise is a foundation for the oncological patient, besides its overall benefits and help in the treatment of the disease. Many people, after the diagnosis of the disease, simply stop exercising and it is up to the doctor to guide and encourage the routine and inclusion of sports in the patient's life. In addition to the many benefits that exercise provides to the individual, self-esteem, self-image and the ability to perform the activity are of utmost importance for the patient's convalescence.

Team Remama debuting the arrival of the boat at USP's lane''

ICESP PHOTOS DISCLOSURE

In the "Teaching to care" program, robots simulate the patient's reactions

On October 6 and 7, the **III Symposium on Humanization** took place. It also hosted the first edition of the International Symposium on Patient Experience. The event promoted a reflection with the purpose of raising awareness among people, especially employees, encouraging them to rethink practices to become a more engaged, empathetic and sensitive professional. Taking into account the individual needs of patients during their stay at ICESP is one of the hospital's priorities.

ICESP joined the Social Solidarity Fund of the State for the realization of the project "**Solidarity in Yarn**", held on October 16, which aims to offer a preparation course of hair prosthetics to train volunteers to produce wigs, some of them which will be donated to the patients of the Institute. The intention is to help rebuild the self-esteem of women in cancer treatment, in addition to reinsert people into the labor market, empowering them with the course.

The Blue November campaign marks the warning for a major problem faced by men: prostate cancer. Each year, the institutions dedicated to the treatment of the disease use the date to disclose preventive measures and to make men aware of the importance of periodic examinations. This year, on November 11, the "**Scoring a Goal for Cancer Prevention**" proposal aimed to show the football fans the importance of early diagnosis and, mainly, the full care of men's health.

High self-esteem has been associated with low levels of depression and tension, favoring the social and physical recovery of oncological patients. Reinforcing the collective movement for feminine diversity and empowerment, the Institute held, on November 29, another edition of the traditional fashion show with patients undergoing treatment. The parade – called "Close the Prejudice and Open for Life" – was supported by students and fashion professionals from the Santa Marcelina School.

The inauguration of the new **ICESP Outpatient Unit in Osasco** in August 2014 provided even more comfort and ease to the thousands of patients living on the so–called Bandeirantes Route, which includes the municipality of Osasco and six other neighboring municipalities: Barueri, Carapicuíba, Itapevi, Jandira, Pirapora do Bom Jesus and Santana de Parnaíba. Currently there are 2,500 active patients, with the right to medical consultations, chemotherapy, radiotherapy and hormone therapy sessions, as well as clinical exams. In recent years, two ongoing initiatives in the unit deserve attention: the Discharge Institutional program agreed upon with the municipal public networks, directing patients with more than five years of follow-up to reference units, with immediate possibility of re-routing to the Institute, in case of relapse and the Gastrointestinal Cancer Prevention and Early Detection Training program is also a pioneer, reaching out to hundreds of health professionals.

During 2017, the following procedures were carried out at the ICESP Unit in Osasco:

SUMMARY OF ICESP'S SERVICE IN OSASCO 2017	
Accomplished Procedures	**Qty.**
Doctor's appointments	9,257
Outpatient multiprofessional consultations	9,848
Ambulatory chemotherapy infusion sessions	3,909
Radiotherapy sessions	5,594
Blood collections	4,935
Hormone therapies	472
Nursing procedures	502
Therapeutic infusion outpatient clinic	240
Total	**34,757**

Lucy Montoro Rehabilitation Institute Management Contract

In 2010, FFM signed a management contract with SES-SP for the management of health activities and services at the Lucy Montoro Rehabilitation Institute (IRLM). Inaugurated in September 2009, the Institute is a unit of ImRea (page 37), located in the neighborhood of Morumbi, and it was designed to be a center of excellence in treatment, teaching and research about Rehabilitation. The 10-storey building is 13,500 m2, fully adapted, and houses the ambulatory care and hospitalization in a pleasant environment, which does not look like a hospital.

The unit serves people of all ages. However, the children audience, since it needs a differentiated approach, has an exclusive floor. The ambiance was designed so that the children associate the therapies with the fun, being a place totally decorated and the furniture adapted for them.

Since it inauguration, the IRLM team consists of physiatrists, physiotherapists, occupational therapists, social workers, psychologists, nurses, nutritionists, speech therapists, music therapists and physical educators.

Cerebral palsy is the most frequent diagnosis in the Institute, with 81% of cases. Other significant numbers are cases of spinal cord injury (12%) and amputation (2%), with the remaining 5% corresponding to other injuries.

IRLM work goes beyond the office. One of the most common activities of the team is to visit schools. The inclusion of children with disabilities, despite being a law since 2010, is still quite difficult. If the parents of the patients want an indication of a school prepared to receive children with disabilities, the Social Work team provides the recommendations.

Multiprofessional team and patients in the carton workshop held on the holiday of September 7

Considering that the protagonism of the patient is one of the most important aspects of the treatment and rehabilitation process, in September 2017, a therapeutic carton workshop was held to make the patient aware that he/she must be at the forefront of his/her process. From a photo exposition dealing with the subject of *Overcoming*, came up the idea to make a workshop with the patients of the Institution, joining the protagonism with the activity. To this end, the IRLM communication team photographed the participants one week prior to the activity. The cartonboard activity sought to develop tasks that stimulated the goals established by the rehabilitation team, but could also be performed at home, generating income for the patient. From the photos, the patients worked on the carton, which consists of coating surfaces with paper and materials that took into account the patients' capacities and shortcomings. The results of these playful meetings with a therapeutic focus are very perceptible afterwards, in the individual visits.

Therapeutic cuisine at the IRLM

Family members can count on the support of the Institute in all matters involving the citizenship, rights and duties of persons with disabilities. The IRLM also provides wheelchairs, orthotics and prosthetics for its patients. Adults can request a new chair if it is worn or broken, every two years. Moreover, children, because of the growth, can request a new one annually. Families have this support throughout their lives.

In 2017, the IRLM continued the development of the activities performed by the occupational therapy teams, prescribed according to the type of readaptation required and the characteristics of the patient. During the rehabilitation process, the

state-of-the-art equipment is combined with seemingly common activities − but they are important for the patient to gain the resourcefulness to return to their daily activities in the best possible way. In the therapeutic cuisine, daily laboratory, activities are proposed according to a patient analysis performed by the professional. For this, a screening is necessary to detect the difficulties or complaints − like making a fruit juice or even painting the nails. Some important points like the emotional, physical and sensory state are considered. The treatments are carried out by multidisciplinary teams, composed of professionals specialized in rehabilitation, namely physiatrists, nurses, physiotherapists, nutritionists, psychologists, occupational therapists, social workers, physical educators and speech therapists.


IRLM DISCLOSURE

In the sports gymnasium of the Paralympic Center, IRLM patients follow the collective games

In March 2017, a group of patients hospitalized in the IRLM, accompanied by the rehabilitation multidisciplinary team professionals (a total of 28 patients and seven therapists), went to the Brazilian Paralympics Training Center to watch the Parapan−American Youth Games 2017, where around one thousand athletes, from 14 to 23 years of age, represented 18 countries in 12 sports modalities. It was an initiative of the Institution, which tries to provide the patient with external activities in order to encourage physical activity, social interaction and provide new stimuli and examples. Physical activity helps improve cardiorespiratory, trunk control and strength. Patients in rehabilitation are encouraged to find an activity that is both motivating and enjoyable for them to continue practicing after treatment and that will help them in their day-to-day activities. Thus, the introduction to sports is lived daily by patients, who experience many modalities. The main thing is not to create competitive athletes, but to show the pleasure of physical activity and the benefits it brings. But sports such as *boccia*, table tennis and wheelchair basketball are widely practiced and have already launched new athletes.

In 2017, the IRLM met the needs of a hospital specializing in the rehabilitation of people with physical disabilities, with their human and technical resources, exclusively through the SUS, offering, according to the degree of complexity of its assistance and its operational capacity, Health services that fit into specific modalities.

The assistance offered by the IRLM includes outpatient care, hospitalization and emergency care.

Between the **technologies** available for the care of the disabled, the following stand out:

a) Baropodometry: an evaluation that identifies the distribution of pressure areas on the sole of the feet during walking; b) Transcranial Electromagnetic Stimulation: methodology of stimulating the central nervous system through which it is possible to build up and obtain favorable responses to the physical reconditioning and progress of movements; c) Telethermography: a system that assists in the diagnosis, treatment and evolution of some diseases, such as tumors of the musculoskeletal system, bedsores and thrombosis and infections of paraplegic patients, etc.; (d) IMN MOTION Shoulder Elbow: promotes the rehabilitation of patients with diminished function of the upper extremities; e) IREX: Equipment that uses virtual reality to guide patients in exercises that work specific functions; f) I−TOY: by means of video capture technology, the patient is stimulated to move themselves; g) LOKOMAT: equipment for the treatment of the recovery of patients with motor deficits affected by Central Nervous System lesions; h) ERGYS: allows patients with complete spastic spinal cord injury to perform aerobic training on exercise bikes; and i) ARMEO: promotes the motor rehabilitation of partial polarization of upper limbs.

In 2017, the following administrative and facility improvement activities stand out: **1.** Bi−weekly follow-up of the Assistance Goals agreed with SES-SP; **2.** Review of the main contracted scopes of the Outsourced Services for the financial sustainability of the Management Contract; **3.** Review of the staff and employees through the optimization of administrative and welfare processes; **4.** Continuation of the Project activities carried out in the National Program of Support to the Health Care of the Person with Disabilities − PRONAS − from the Ministry of Health, namely: *Training: Rehabilitation in Brain Injury*; **5.** Training of Hospital Costs; **6.** Cleaning of Exterior Glasses and Stones 3rd floor; **7.** Reform / Tapestry Repairs; **8.** Interventions in the Thematic Square; **9.** Interventions in the External Area; **10.** Actions for Security: Setup of a Doorbell and Lighting fixtures

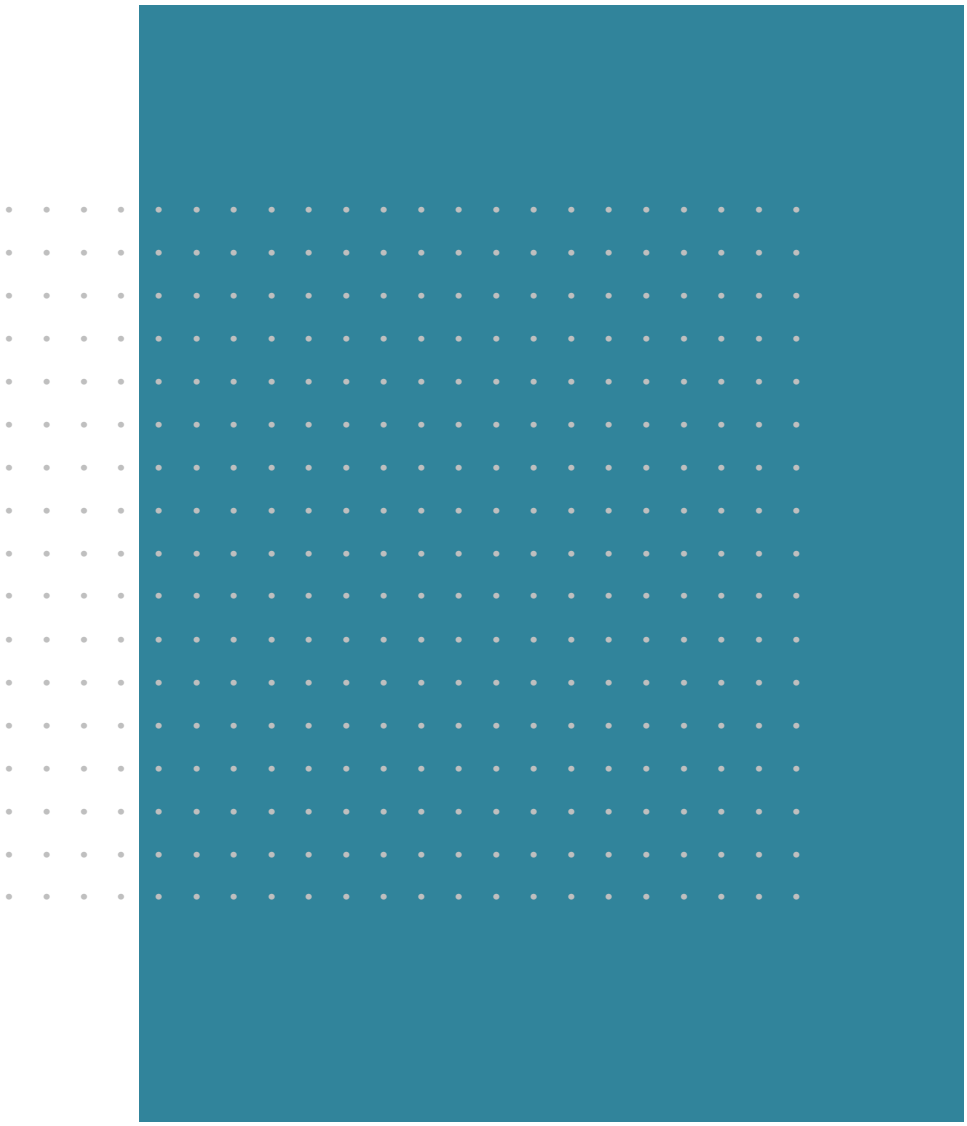
at the Itacaiúna Gatehouse; **11.** Adaptation of the Leisure Area.

In 2017, the following **ludic actions with therapeutic focus and other initiatives** were developed: 1. Project: Caring for the Caregiver; **2.** Accident Prevention Campaign: Wellness Program Interview – Shallow Water Diving; **3.** Takkyu Volleyball and Fusen Course; **4.** Carnival Celebration for Patients and Caregivers; **5.** June Party for Patients; **6.** External Activity – Inclusion Walk – Ibirapuera Park; **7.** Project: The Influence of Sports on Post-Rehabilitation; **8.** External Activity: Visit of Hospitalized Patients to the Brazilian Paralympic Center; **9.** Holiday activity – Cardboard Workshop; **10.** Cooking Workshops; **11.** Homage to Mother's Day; **12.** Homage to Father's Day; **13.** Commemoration of Children's Day and Visit of the "Super Heroes"; **14.** Cookies Workshop; **15.** Arabian Thematic Dinner – Hospitalization Patients.

The quantities of procedures in 2017 were as follows:

LUCY MONTORO REHABILITATION INSTITUTE – 2017	
Outpatient activity – Medical Specialties	
Accomplished Procedures	**Quantity**
Outpatient activities – Physiotherapy	5,094
Outpatient activities – Urology	605
Outpatient activities – Others	360
Outpatient activity – Non-Medical Specialties	
Accomplished Procedures	**Quantity**
Outpatient activities – Nursery	5,247
Outpatient activities – Physiotherapy	4,966
Outpatient activities – Speech and Language Therapy	1,722
Outpatient activities – Nutrition	1,550
Outpatient activities – Psychology	2,714
Outpatient activities – Occupational Therapy	4,762
Outpatient activities – Physical Conditioning and Socail Service	3,730
Distribution of Orthoses, Prosthetics and Locomotion Means	2,805
Hospital Assistive Activity – Admissions	
Accomplished Procedures	**Quantity**
Medical Clinic Rehabilitation – Hospital Leave	440
Grand total	**33,995**

Social Aid Actions



SOCIAL AID ACTIONS

In addition to actions in integral health, FFM also supports social aid programs and projects for the most deprived population

Major Social Aid Projects

"Bandeira Científica" Project 2017”

BANDEIRA CIENTÍFICA COLLECTION

Images of the participants of the "Bandeira Científica Project 2017" in Sacramento-MG

The Bandeira Científica Project is an academic project of university extension, which involves academics from multiple units of USP, among them, School of Medicine, School of Public Health, Institute of Psychology, School of Dentistry, Polytechnic School, School of Economics, Administration and Accounting and School of Pharmaceutical Sciences, coordinated by the Department of Pathology of FMUSP, with about 200 participants in each edition.

Its mission is to contribute to the social, academic and professional formation of University students, through actions that emphasize integral care, interdisciplinarity, longitudinality, dialogue and humanization in health, established in conjunction with a city in a vulnerable situation in the Brazil countryside.

The group conducts an annual expedition, aimed at clinical and educational activities, in a city in the interior of the country, which lacks health care, to develop social activities of teaching, research and assistance.

In the period of **December 10 to 21, 2017**, with the support of the Essilor Group, Miguel Giannini, Finnet and the intervention of the FFM, the expedition of the "Projeto Bandeira Científica 2016", operated in the municipality of **Sacramento**, in the state of **Minas Gerais**, which also had partnerships with the Federal University of the Triângulo Mineiro.

BANDEIRA CIENTÍFICA COLLECTION

Images of ultrasound, ophthalmic examination and dental prosthesis performed in 2017

In addition to the visits made to the three posts that the project sets up daily, health promotion and prevention activities were carried out, such as:

- "Demedicalization" activity with management of the Health Department: aiming at the discussion about over−medicalization of the population in relation to mental health, especially psychiatric medication, and also to promote a discussion on the functioning of services as a network. An activity was carried out by the teams of pharmacy, medicine, psychology and occupational therapy named "demedicalization" together with a multiprofessional team of the city.
- Tracking: performing an activity in which, based on an interdisciplinary methodology, a survey on the information and needs of the rural population of Sacramento is actively being carried out, in order to build a comprehensive health diagnosis and serve as a stimulus for the municipal administration to carry on this work of knowledge and approximation with the rural population.

BANDEIRA CIENTÍFICA 2017 PERFORMANCE – MG	
Service	**Qty.**
Medicine	1,656
Physiotherapy	94
Nutrition	70
Psychology	43
Dentistry	776
Speech Therapy	41
Occupational therapy	24
Pharmacy	123
Shared Attendance	126
Total Service	**2,953**
Exams	**Qty.**
Scheduled Ultrasound	118
Pathological and Anatomical Exams	38
Scheduled Electrocardiograms	15
Total Exams	**171**

BANDEIRA CIENTÍFICA 2017 PERFORMANCE – MG	
Participants	**Qty.**
Area Directors and Coordinators	33
Participants – Academics	92
Participants – Professionals	36
Coordinator Teachers	01
Students from partner universities	06
Professionals from partner universities	01
Activities	**Qty.**
Home visits	25
Health promotion and prevention activities	08
Discussion of counterreference with teams	18
Management Meetings	09
Other Procedures	**Qty.**
Dental Prosthetics	48
Dental surgical procedure	63
Orthoses	25
Audiometrics	42
Adaptations	49
Anthropometric assessments	336
Other Procedures Total	**563**
Approx. Service and Procedures	**3,687**

Street Children and Adolescents in the Center of São Paulo: the mental health of this population and the effectiveness of multidisciplinary intervention in the process of social and family reintegration – Equilíbrio Program

EQUILIBRIO PROGRAM COLLECTION

Images of activities developed with children and adolescents by the Equilibrio Program in 2017

The Equilíbrio Program, which restarted its activities in 2017, through an agreement signed between FFM and the State Office of Social Development, is coordinated by IPq. Its main objective is to assist children and adolescents in situations of vulnerability and social risk, while attending families, seeking to reintegrate children into the family and community life in a more agile and structured way. To do so, it works together with the services of the existing expanded network that also serves this population, to prevent, in the long run, the increase of children living on the streets and the consequences of violence in the education of the individual and families.

The main objectives are:

1. Perform initial assessment and follow-up of children and adolescents who are victims of violence and families living in situations of vulnerability and risk, in order to reduce their current suffering and prevent future health problems;

2. Develop preventive actions through psychosocial interventions with families in order to reduce violence and promote a healthier environment for the children's development.

The beneficiaries of the initiative are:

a) Children and Adolescents separated from their families – hosted in Institutional Foster Service for Children and Adolescents (SAICAs): referred to the Equilíbrio by the Children and Youth Courts (VIJs), Tutelary Councils, Specialized Reference Centers for Social Assistance (CREAS), Reference Centers for Social Assistance (CRAS), Centers for Children and Adolescents (CCAs), SAICA Coordination, Special Protection Service, Child Psychosocial Care Center (CAPS–I), UBS, schools.

b) Children and adolescents who are still with their families, but in a situation of vulnerability and social risk: spontaneous search for families living near the Equilíbrio site, sent by CREAS, CRAS, partner entities that work with families, UBS, CAPS, NASF.

It is intended, through the activities offered, to promote a development compatible with the potential of each child and adolescent, stimulating greater autonomy in activities of daily living, relating to self-care, and activities of practical life.

The project also aims to stimulate neuropsychomotor development; improve cognitive aspects; expand the playful and symbolic universe of the child/adolescent; develop social skills, self-control and increase self-esteem; improving communication and social interactions within the group, the family and society; guide and give therapeutic support during the process of illness or aggravation of the condition and keep the child linked to their social environment. The result of these actions is reflected in the increase in school inclusion, improving the learning and empowerment of these children and adolescents.

Thus, they will be better prepared to receive professional training and start their activities in the labor market.

At the same time, working with families aims to promote a more stable and healthy family environment, reducing institutional foster rates and the sickness of its members. With the increase of the adolescents' autonomy, they can help in the maintenance of the family and also contribute to the reduction of stress and, consequently, of family conflicts.

Through the development of joint actions to children, adolescents and families accompanied by the Equilibrio Program, professionals from other teams will benefit from learning at work (guardianship counselors, VIJ technical teams, schools, kindergartens, community centers). through the sharing of experiences in the opportunities for discussion and joint monitoring of cases.

In addition, the Equilibrio Program provides technical support to the SAICA technical teams, assisting SAICA's educators and staff for individualized orientation, as if they were the family members of the child. The objective of this customized support is to reduce the burnout of these professionals, to promote an environment of greater stability for the children and adolescents. Thus, the professionals of the SAICA technical teams are indirect beneficiaries.

By promoting a more stable family environment, with less occurrence of violence within the family, the community where this family resides will also benefit from the reduction of family and community intercurrences.

Society in general will benefit since, according to the international literature, by promoting greater family stability, it is possible to reduce violence in the community.

The summary of the number of attendances made in 2017 is as follows:

ATTENDANCES MADE BY THE EQUILÍBRIO PROGRAM 2017	
Description	**Quantity**
Family Psychology	233
Speech Therapy	168
Psychological	203
Psychopedagogy	167
Social Service	194
Total	**965**

"Visão do Futuro" (Future View) Program

"FUTURE VIEW" PROGRAM COLLECTION

Images from one of the 2017 "Visão do Futuro" Task Force

This program, that started in 2009, is promoted by the SEE-SP, SES-SP, SME-SP, SMS-SP and SMADS-SP. Its objective is to prevent eye problems and to recover eye health in children between six and eight years old. Those children should be enrolled in the first grade of elementary public schools maintained by the São Paulo City Hall and State Government. Such children were previously submitted to eye examinations. This work is developed in the city of São Paulo in partnership with the three main medicine schools in the city – Santa Casa, Unifesp and FMUSP.

At FMUSP, through an agreement signed between FFM, HCFMUSP and SES-SP since 2010, the Clinical Ophthalmology Division of HCFMUSP was responsible, in 2017, for the care of children who went under previous screening in schools. The program began with the training of state and municipal teachers to observe the eye behavior of six– to eight-year-old students. From this screening, the children are referred to the ophthalmological groups, which happen, on average, six times a year in HCFMUSP.

The eyes require a lot of care, so that vision can develop adequately and, once reached its maximum potential, be preserved. Detection actions taken by observation of the child's eyes and behavior (by parents, teachers, community health agents or anyone who interacts with the child), assessment of visual acuity and early treatment of eye disorders performed with spectacles, occluders, etc., allow recovery and a normal development of vision and, consequently, a better school performance and a greater social integration.

Each collective effort brings together approximately 1000 children, who arrive at HCFMUSP, on certain Saturdays, on buses provided by the government. They undergo all types of ophthalmologic examinations and, if a problem is detected, they are put into HCFMUSP care and continue with the treatment, or go to one of the accredited eyeglass stores to provide frames and lenses to make the eyeglasses. The Program also includes guidance on wearing glasses, how to take care of them, and the need for periodic review.

The main demands generated for the HCFMUSP's Ophthalmologic Outpatients Department are strabismus and amblyopia, which are easily corrected if detected in this age group. Amblyopia is the abnormal development of one eye, which causes the brain to try to compensate this underdevelopment by concentrating all vision in the normal eye. If the problem is not detected in time, the brain compensates for this asymmetry by nullifying the underdeveloped eye, which can no longer be recovered.

While waiting, kids can play games. In addition to the group of doctors and nurses who carry out the examinations, the work is only possible thanks to the collaboration of volunteers, who help in all stages, from the organization of the line to the direction to the eyeglass stores. There is about 200 people involved in each task force. Doctors compose an average of 60 of them.

In 2011, 4,717 consultations and 2,230 ophthalmological examinations were performed. In 2012, five campaigns were carried out, with the attendance of around 3,000 children. In 2013, six campaigns were carried out, with the attendance of 3,880 children. In 2014, five campaigns were carried out, with the attendance of 2,600. In 2015, 3,225 consultations were carried out in five campaigns. In 2016, 3,512 consultations were carried out in five campaigns.

In 2017, six campaigns were carried out with the total participation of **2,725 children.**

Student Financial Support Program – AFINAL

Since 2007, a commission composed by representatives of the Board of Directors of FMUSP, HCFMUSP, FFM, the Undergraduate Committee of FMUSP, the Association of Former Students of FMUSP, the Tutors Program of CEDEM − Center for the Development of Medical Education "Prof. Eduardo Marcondes" from FMUSP, representatives of the students, the Student House, the Ethics Committee, the Academic Advisory Board of FMUSP and the courses in Speech Therapy, Physiotherapy and Occupational Therapy, develops the Student Financial Support Program (AFINAL), which financially assists undergraduate students so they can focus on their studies. This commission meets monthly, or occasionally, when it is needed, to make all decisions and discuss new ways of raising funds and other matters.

The family income and the need profile of freshmen and veterans are evaluated, in parallel to the USP inclusion program, aimed mainly at students from public schools who live far from the campus.

In the last two years there has been a 10 % increase in demand. The aid comes in the form of a scholarship disbursed in 12 installments of R$484.00, a similar amount, but slightly higher than that offered by USP for the other units. At the end of this period, it is possible to apply for a new scholarship.

The required counterparts are that the student must be involved in some academic project and without any fail.

The selection process is headed by the USP's Superintendent of Social Assistance, which receives the registrations of interested parties and analyzes in partnership with the Commission of FMUSP.

In 2017, **60 Scholarships** were granted. The responsibility of funding the scholarships were divided as follows: FFM, 15; FMUSP, 15; AAAFMUSP, 5; Chief Officer of the HCFMUSP, 15; and Zerbini Foundation, the remaining 10.

Protocol for the Treatment of Patients with Cleft Palate

The Protocol of Craniofacial Surgery for the Treatment of Patients with Cleft Palate, developed by the Department of Plastic Surgery and Burning of the HCFMUSP, was made possible through donations from Smile Train, with the intervention of FFM. It begun at the end of 2008, benefiting patients with cleft palate that need reconstruction of lip, nose, alveolus and palate defects, and their repercussions on speech and facial growth.

In the year 2017, 111 patients were treated in **120 surgical procedures**, Distributed among primary cheiloplasty surgeries, primary palatoplasty surgeries and other secondary procedures.

In addition to surgeries, outpatient visits were performed, around 32 patients per week, making a total of about 1,384 patients seen per year.

The outpatient clinic also has two speech therapists, provided by the FMUSP Department of Speech-Language Pathology and Audiology, who provide concomitant care for patients with cleft lip and palate.

In the year 2017, an amount of 231 patients were attended by **Speech Therapy**, totaling **571 consultations.** Speech therapy is divided into three stages, based on speech/language development:

1) Speech-Language Pathology and Audiology Assistance to pregnant women whose babies received antenatal diagnosis of Cleft Lip and Palate and/or newborn infants who were diagnosed with Cleft Lip and Palate, which guides pregnant women and mothers about feeding and speech, language and hearing development;

2) Speech-Language Pathology and Audiology Assistance for Cleft Lip and Palate Children and Adults, which serves patients from two years of age who are in a pre or Post-surgery situation, who follows and evaluates the development of speech, language, hearing and eating, including: anamnesis, myofunctional evaluation, speech evaluation and voice recording and, depending on the age of the patient, the performance of nasoendoscopy exam.

In the months of March/April, the SIED Summerlad Palate Course – Palatoplasty (Apathetic Theory) was held.

During the year of 2017, four foreign students carried out trainings and five undergraduate students from FMUSP carried out Scientific Initiation Assignments of Plastic Surgery – Cleft Lip and Palate, in addition to training aimed at these Patients.

In 2017, therefore, **691 procedures** were performed (surgical and Speech Therapy).

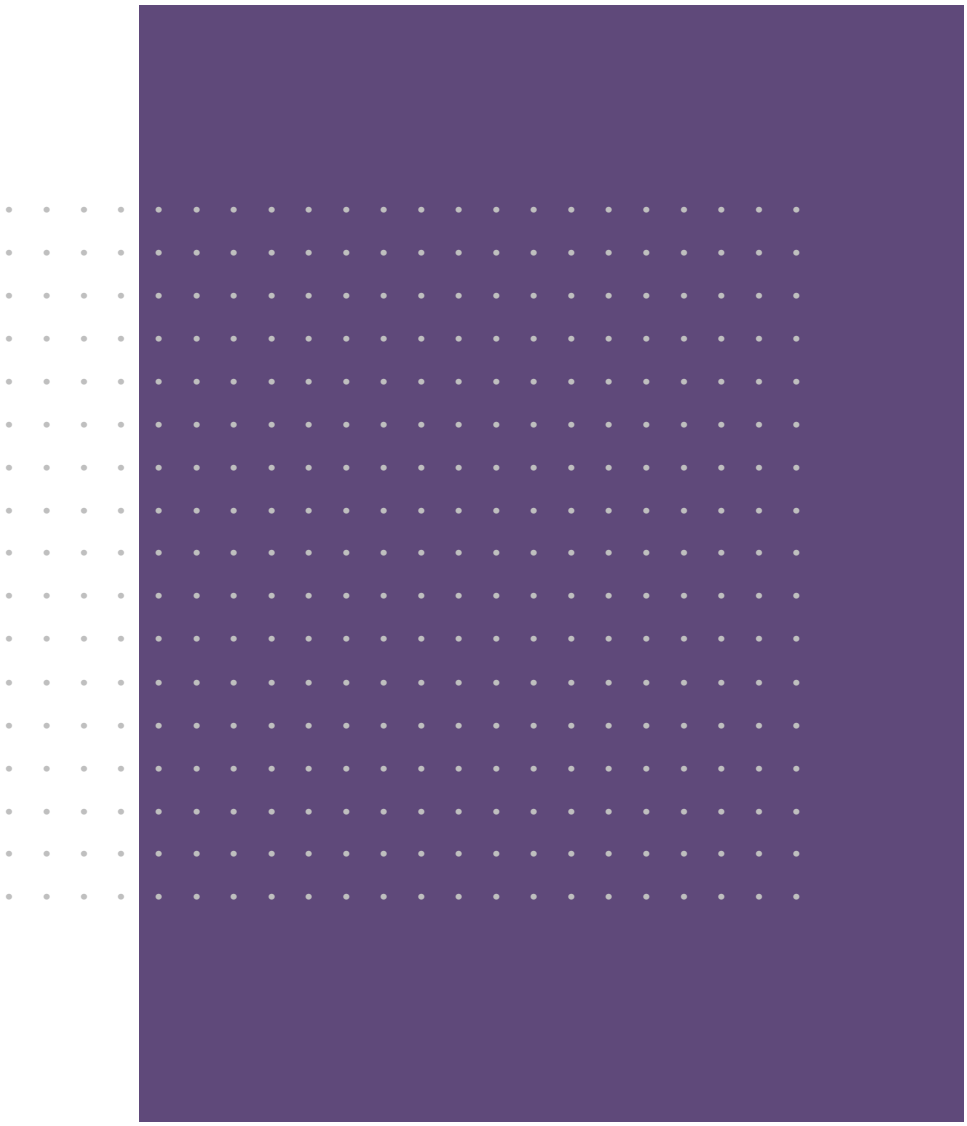
Mental Health Program for Interns – CASA Foundation – City of São Paulo

Through an agreement signed between FFM, HCFMUSP and the CASA Foundation, this project, approved at the end of 2009, was developed by NUFOR–IPq and was terminated in March/2017.

Its main objective was to render outpatient services in the medical specialties of Psychiatry and General Clinic for the inmates facing socio–educational sentences in the several Units of the CASA Foundation of the city of São Paulo, including the following Units: DRM I – Franco da Rocha; DRM II – Tatuapé; DRM III – Brás; DRM IV – Raposo Tavares; and DRM V – Vila Maria.

Considering the period from **January to March/2017**, **697 clinic attendances** and **1,402 psychiatry attendances** were performed in a **total of 2,099 consultations**.

Aid Projects



MAIN AID PROJECTS

FFM is involved in a series of assistance projects, helping women, children, the elderly, families, people with disabilities and people with HIV virus and cancer, among others.

HIV/AIDS Virus and Sexually Transmitted Disease People

In addition to the actions developed by **Home of AIDS** (page 35), which has received administrative support from FFM since 2004, FFM has been involved in a number of other initiatives that have benefited people with HIV-AIDS virus, among which the following projects stand out.

From basic science to clinical practice: infusion of modified lymphocytes to promote viral eradication – BELIEVE Study

The project named BELIEVE, developed by LIM 60, through a contract signed between FFM and The George Washington University with a subsidy from the NIH, began in 2017. It is a multicenter study involving 18 universities located in four countries (USA, Canada, Mexico and Brazil), headquartered in Washington.

Antiretroviral therapy prolongs life, but is expensive, requires lifelong adherence, and is limited by the toxicity of drugs and viral resistance mechanisms. In order to end the global epidemic, HIV cure is needed.

The project involves four research nuclei aimed at: **a)** understanding ways to improve the ability of cytotoxic T lymphocytes to eliminate HIV; **b)** amplifying the function of NK cells; and **c)** taking advantage of T cells, NK cells and antibody−mediated responses in the context of HIV infection of adult and children. It covers research in basic science and animal studies, *in vivo*, with prospects of quickly conversion into clinical studies.

The project involves renowned researchers, community representatives and corporate partners. A third of the scientific leadership is composed of women researchers, as well as new and young researchers. All of them are guided by the belief of cure through the improved immunity against HIV in association with latency reversal agents, conducted in a fully participatory manner from the interested parties.

Randomized study to prevent vascular events in HIV infection– REPRIEVE (A5332)

This research, developed by LIM 60 and the Subjects of Infectious Diseases and Preventive Medicine of FMUSP, through contracts signed between FFM and the AIDS Clinical Trials Group − ACTG, began in 2017.

The aim of the study is to evaluate the effects of pitavastatin on the prevention of major cardiovascular adverse events in patients receiving HIV infection treatment.

There is an increased risk of adverse events associated with statin use; but considering that the risk of cardiovascular disease in the HIV positive population is twice that of the general population the benefits of this study are worthwhile.

The use of sexual Pre-exposure prophylaxis (PrEP) by people with high exposure and vulnerability to HIV in the context of Brazilian health services: Combina Project – phase 2

This research, developed by the Department of Preventive Medicine of FMUSP, through an agreement signed between UNESCO and FFM, began in 2017.

Efficacy studies have shown a high degree of protection against HIV in sexual intercourse with potential exposure to the virus. However, there is little knowledge of the results of using this prophylaxis in real life, especially considering the routine of the health services and that of the populations most affected by the epidemic in middle- and low-income countries.

In Brazil, the Combina Project started in 2016 to evaluate the effectiveness and disinhibition effects of sexual practices due to the use of sexual Pre-exposure prophylaxis (PrEP) in five Brazilian health services. Initial results showed that individuals who chose PrEP were characterized by the predominance of homosexuals, with higher income, schooling and non-users of health services. Among the users of the services participating in the study, who did not opt for the use of prophylaxis, the reasons were: not willing to use drugs for prevention, to be afraid of adverse events and to be satisfied with the preventive strategy/method used. By the sixth month, no HIV infection was observed among PrEP users who remained in clinical follow-up.

The present project aims to continue the observation of the participants who started the use of PrEP in order to analyze the effectiveness of the prophylaxis and eventual disinhibition of the sexual practice for a period of another 12 months.

Linkage and retention of people with HIV in the public health services: a demonstration project in the city of São Paulo, Brazil

This research, developed by the Department of Preventive Medicine of FMUSP, through an agreement signed between FFM and the Aids Health care Foundation of Brazil, began in 2017.

The linkage and retention of people living with HIV in clinical follow-up directly influence the effectiveness of antiretrovirals, and low rates of these events have been observed in high-, middle- and low-income countries. In Brazil, it is estimated that about 20 % of newly infected people take more than six months to initiate antiretroviral therapy after being diagnosed with the infection, and 52 % who are aware of the diagnosis are not using antiretroviral therapy.

Faced with this challenge, the present project intends to study the frequency, the access barriers and the vulnerability profiles of the linkage and different patterns of retention of people infected by HIV in public health services in the city of São Paulo; as well as to analyze the effects of health technologies that aim to reduce these events in the Brazilian context.

The project will be developed in four stages: **a)** in the first one, newly diagnosed people in testing and counseling centers will be followed up for a year, in order to measure the time and the linkage barriers in outpatient services; **b)** in the second one, a prevention service for sex workers will be structured to measure the linkage and retention of those women who are diagnosed with the infection; **c)** in the third one, people with active registrations in specialized care services will be observed for a period of up to four years, in order to know their retention patterns, according to attendance at the medical appointments, the performance and results of T CD4 and viral load, the withdrawal of antiretroviral drugs and the occurrence of death; and **d)** in the fourth stage, the effects of the implantation of the following health technologies will be analyzed: linker, attendance with assessment and classification of risk of non-retention, management of clinical follow-up, and training of interdisciplinary teams for the formulation of sinlge therapeutic plans, which will be implemented in the participating services of the project as of the fourth month of its development.

GBV-C mediated protection against AIDS

This subproject was started in 2016 by LIM 60 of HCFMUSP, through a contract signed between FFM and the University of Wisconsin − Madison with the NIH subsidy and continued in 2017.

GBV-C virus causes asymptomatic, persistent and high viral load infection in humans. However, after years of research, little is known about the in vivo biology due to the lack of functional *in vitro* models in animal form.

Several clinical studies, however, found a significant association between persistent GBV-C infection and increased survival of HIV-positive patients by decreasing disease progression and reducing the AIDS mortality rate by 2.5 times, a so−called phenomenon Associated with GBV-C (GPFA). With more than 37 million people infected worldwide and lacking the resources to provide antiretroviral treatment for all, HIV infection is still one of the major public health problems. Better understanding of the mechanisms by which GBV-C protects the individual against HIV infection can help in the search for treatment options that mimic this action.

Thus, the present project aims to determine one of the most important aspects of virus biology: the tissue tropism of the virus in humans, in order to determine which cells, permissible to viral replication, are responsible for the high viral load found in vivo. For such, blood, bone marrow and tissue samples from autopsied human cadavers will be collected at the SVOC unit of São Paulo at FMUSP and blood and bone marrow samples from patients undergoing orthopedic surgery to replace the hipbone.

These results may help in the development of a cell line that can generate high viral *in vitro* load, making it easier to understand the main aspects of GBV−C/HIV co-infection and the exploration of the various mechanisms that have been associated with GPFA.

Evaluation of the tropism of HIV infection in individuals co-infected with the HTLV-1/2 virus in Brazil

This study was initiated in 2016 by LIM 56, through a contract signed between the University of California Davis and FFM with subsidy from NIH, and carried on in 2017.

Sexual transmission of HIV is the most frequent form of transmission in women in Brazil, but the influence of coinfections by other viruses in this process is not well understood.

Coinfection by the human lymphotropic virus type 1 and 2 is quite common in HIV-infected individuals, mainly drug users and prostitutes. In Brasil, Brazil, in some regions, about 10% of HIV-positive patients are also infected with HTLV-1.

The overall objective of this study is to assess whether viruses produced from cells from HIV-infected patients and HTLV-1/2 are capable of infecting CD4-negative cells.

The specific objectives are: **1)** To determine the presence of HIV integrated into the DNA of CD4 positive and negative cells in patients infected by the HIV-1 alone and in patients coinfected with HIV-1 and HTLV-1/2; and **2)** Check if the *in vitro* virus produced by stimulation of CD4 + T lymphocytes from patients infected with HIV-1 alone or coinfected with HTLV-1 or 2 is able to infect CD4 negative cells *in vitro*.

Analysis of the effectiveness of antiretroviral drugs for the prophylaxis of Post-exposure sexual transmission of HIV (PEP) in a cohort of exposed individuals from five Brazilian cities

This research, developed by the Department of Preventive Medicine of FMUSP, through an agreement signed at the end of 2012 between FFM and the Ministry of Health, aims to analyze the effectiveness of antiretroviral drugs for the prophylaxis of HIV infection through sexual exposure, as well as measuring the effects of this technology on sexual practice and service organization and continued in 2017.

As specific objectives, we can highlight: **a)** Analyzing of the effectiveness in using antiretroviral therapy to avoid the transmission of

HIV after the occurrence of an exposure in sexual relations; **b)** Estimating, for a period of up to 18 months, the proportion and number of times that individuals who used the post exposition prophylaxis (PEP) return to the service due to a new exposure; **c)** Analyzing the social and epidemiological characteristics of individuals repeatedly seeking the service for the use of PEP and their perception of the risk of HIV infection and the possibility of PEP increasing the number of unprotected practices; **d)** Estimating the proportion of individuals taking PEP who drop out of treatment and to know the aspects that contribute to this event; **e)** Studying the perception and practice of health professionals regarding the PEP and exposed individuals who sought the service for the use of prophylaxis; **f)** Identifying aspects that may lead individuals repeatedly exposed to HIV infection to participate in HIV prevention programs and strategies; and **g)** Analyzing the agreement between therapeutic prescription and the recommendations of the Ministry of Health for Post-exposure prophylaxis.

Access to diagnosis: design and evaluation of intervention technologies for a user invisible to CTA

This research, developed by the Department of Preventive Medicine of FMUSP, through an agreement signed at the end of 2012 between FFM and the Ministry of Health, aims to develop and analyze the intervention and communication technologies that allow the health services, especially the Counselling and Testing Centers (CTA), to identify and stimulate those people that are more exposed to infection with HIV through sexual practice to take part in anti-HIV tests and to have access to prevention actions and continued in 2017.

As specific objectives, we can highlight: **a)** Develop intervention technologies, based on peer strategies, to encourage people who are more exposed to infection to seek CTAs for HIV testing and to use other services offered by the service (catchment technologies); **b)** Develop communication strategies to support intervention and recruitment activities of individuals more exposed to HIV infection; **c)** Develop a methodology for the epidemiological analysis of the clients that seek the CTA through the new capture technologies, enabling the identification and description of segments of higher prevalence of HIV; **d)** Develop processes for the diffusion and incorporation of technologies developed in the scope of the services using, therefore, face-to-face and distance approaches; **e)** Deploy, in three selected CTAs, the technologies developed; and **f)** Evaluate the effects of intervention technologies on the services in which they were implemented.

Implementation of the Genotyping Test for the detection of mutations that generate resistance to Enfuvirtide Inhibitor – in patients submitted to HAART, but without previous treatment with this class of drugs

This study, through an agreement signed between FFM and the Ministry of Health and developed by LIM 56, was initiated in 2011 and completed in 2017.

The main objectives of this initiative were: **1.** To verify the resistance profile of HIV-1 to Enfuvirtide, through the genetic sequencing of the HR1 domain of gp41 of the viral envelope in treatment−naive patients for this drug, but with multiple therapeutic failures against HAART; and **2.** To investigate the presence of accessory mutations at codons 126, 137 and 138 in the HR2 domain of viral envelope gp41 previously described (Shafer, Et al., 2003) and increasing the replication capacity of HIV-1 (viral fitness).

Center for the Treatment and Training of HCFMUSP Patients with Transsexualism

The care for transsexual patients in HCFMUSP, considered one of the four Reference Centers for the Treatment of Transsexuals in Brazil, has been carried out since 1998.

The project titled "Actions on HIV/AIDS − Training Center to Assist Patients with Gender Identity Disorders (Transsexualism) at HCFMUSP", that started at the end of 2010 and was developed by the Department of Endocrinology of FMUSP, was finished in 2017, as the Agreement signed between FFM, HCFMUSP and SES-SP was discontinued.

Its objectives were as follows:

a) To continue the highly specialized clinical follow-up to patients who have already completed the transexualizing process;

b) To continue the clinical and surgical care of the 133 patients prepared for sex reassignment surgery;

c) To put, in the HCFMUSP Transgender Treatment Program, the 220 patients waiting in the queue;

d) To organize and maintain the group of professionals in the technical areas of Endocrinology, Psychiatry, Psychology, Plastic Surgery and Gynecology for specialized and integral care of the transsexual patient; and

e) To provide, according to CFM and SUS regulations for the sex reassignment process, teaching and training professionals in a Reference Center, with the objective of creating new treatment centers for these patients.

Innate Immune System NKT Cells into HIV/Mycobacterium tuberculosis coinfection

This study was initiated in 2014 by LIM 60, through a contract signed between the George Washington University and FFM and was continued in 2017.

Natural Killer T cells (NKT) are cells of innate immunity with important immunoregulatory functions. They directly recognize and respond to glycolipid antigens of bacterial origin, making them an active part in the immune responses against such pathogens. Studies have shown that the NKT cell compartment is seriously compromised in HIV-1 infection, but it can be partially recovered through interleukin-2 (IL-2) therapy.

Its objectives are as follows: 1. To verify whether treatment of HIV-1 infected individuals with antiretroviral therapy (ART) combined with IL− 2 is able to induce a sustainable increase in the frequency and function of circulating NKT cells; **2.** To determine the mechanisms and consequences of negative regulation of CD1d in HIV-infected dendritic cells (DCs); **3.** To investigate the relationship between the loss of NKT cells in HIV-1 infected individuals and the emergence of microbacterial infections.

These studies are believed to contribute considerably to understanding both the functioning of NKT cells in the disease caused by HIV-1 and the ways in which the virus attempts to escape the activation of NKT cells, and how such cells can contribute to the innate defense against HIV-1 infection and opportunistic infections typical of AIDS.

Prospective assessment of the use of isoniazid in the prophylaxis of pulmonary tuberculosis (TB) prevention in HIV-infected patients

Despite the various studies indicating isoniazid (INH) as a prophylactic to reduce the incidence of Tuberculosis (TB) in the HIV-infected population, this measure is not widely met in all services in Brazil. Therefore, this study aims to evaluate the incidence of TB in individuals, adherence to prophylaxis, as well as its efficacy compared to a historical series of service.

Through an agreement signed between FFM and the Ministry of Health, at the end of 2010, the research is developed by LIM 56 and has the following objectives: **a)** Prevalence of reactivity to PPD in HIV-infected patients; **b)** To evaluate the impact of the use of INH in patients with PPD > 5 mm) and the incidence of TB; **c)** To determine the incidence of PPD turnover in non-reactive PPD subjects; and **d)** Study specific immune restoration in HIV-positive patients cured of tuberculosis and presumed to be immune restoration by the use of antiretroviral therapy (ART).

These data may point to the relevance of tuberculosis program and make a more incisive guideline for INH, since TB remains the most incident disease in the HIV-infected population in Brazil.

These activities started at the end of 2013, due to the delay in the release of funds, and continued in 2017.

Study of specific immune response and genetic aspects in HIV-1 infected patients not long-term progressors or slow progressors for AIDS

Non-Progressive Individuals for a Long Time (Long term non progressors − LTNP), or also called Slow Progressors (SP), remain free of AIDS progression for many years and make up about 1−3% of all HIV-infected individuals. These individuals remain asymptomatic and have a number of CD4 T lymphocytes+ stable and above 500 cells/mm3 of blood, without any use of antiretroviral treatment (ARTs) for more than 8−10 years. The factors that determine non-progression or slow progression in these individuals are not very clear and have been little studied in our country. T lymphocyte responses to HIV play a key role in immune control of HIV and in vaccine, prophylactic or therapeutic strategies.

This study, through an agreement signed between FFM and the Ministry of Health, at the end of 2010, is developed by LIM 56 and intends to analyze HIV-1 individuals + LP comparing with typical and rapid progressors for AIDS, matched by evolution time and paired by sex and age.

Thus, it shall be carried out:

A) Detection of viral and host genetic markers associated to the slow progression phenotype of AIDS infection, polymorphisms in immune system components involved in viral infection, such as the deletion of 32-base pairs in the CCR5 gene, in addition to the polymorphisms in the promoter region Of CCR5 (CCR5-P-59029A/G), CCR2-64I, and SDF-1-3'A;

b) Determination of HLA haplotypes that may be associated with disease progression; and

c) Verification of the anti-HIV immune response *In vitro* Determination of the specific T lymphocytes against Pools Of peptides from Gag nef and RT of subtype B.

A cohort of HIV-infected patients from various specialized care services in the State of São Paulo will be constituted, aiming to select 100 individuals with predefined criteria for slow progressors.

These activities started at the end of 2011, due to the delay in the release of funds, and continued in 2017.

Tools for creating and analyzing indicators of clinical and molecular data of HIV patients for PN−DST−AIDS management and decision-making

Considering that the STD, AIDS and Viral Hepatitis Department needs Bioinformatics tools to assist in the analysis of its results, this project, made possible through an agreement between FFM and the Ministry of Health and developed by LIM 46, aimed to achieve: **1.** Technical training to understand the computational environment and the source code of the systems: DBCollHIV, HIVdag and extraction and analysis of clinical and molecular data indicators; **2.** Domain and application of techniques to classify and analyze clinical and molecular data, as well as the automated identification of associations between mutations and drug resistance. **3.** Development of the algorithm for identification of mutations, starting with files of sequences in FASTA format;

and **4.** Transactional systems for the insertion of reliable clinical and molecular data available on the internet.

In other words, the objective was the development of computational tools for the creation and analysis of indicators of clinical and molecular data of HIV patients for management and decision making of the STD, AIDS and Viral Hepatitis Department, as well as the Implementation of the Genotyping to detect mutations that generate resistance to Enfuvirtide Inhibitor − in patients undergoing HAART, but without previous treatment with this class of drugs.

This study was started at the end of 2010 and discontinued in 2017.

People with Disabilities

In addition to the actions developed by **IMRea** (page 30) and **IRLM** (page 43), one of the ImRea Units that has been managing the health activities and services by FFM since 2010, through a management contract signed between FFM and SES-SP, FFM was involved in several other initiatives that benefited people with disabilities, among which the following projects stand out.

Classifiers for early diagnosis of Autistic Spectrum Disorder using look tracking

This project sent to the Ministry of Health in 2017 by the IPq, through the FFM, for presentation and approval of projects under the **PRONAS** program, which foresees the collection of resources from individuals and legal entities with deduction of income tax, was approved at the end of 2017.

The major objective of this project is to develop diagnostic classifiers using computational machine learning techniques. The aim is to develop computational methods that contribute to the early and more objective diagnosis of Autistic Spectrum Disorder (ASD) from traces of look tracking, creating a pilot center of analysis and training in tracking of ASD; as well as to develop classifiers and grouping analyses using the look tracking data in conjunction with phenotypic and epidemiological data, contributing to the definition of ASD subtypes.

The specific objectives are as follows:

1. Map evidence of atypical visual attention that helps in the diagnosis of ASD;

2. Define which visual stimuli to be placed in videos, according to the signs of atypical visual attention that best help in the detection of ASD;

3. Implement and evaluate a computational model of visual attention that develops the prediction of visual attention in ASD;

4. Develop a prototype that eases the validation and use of the developed model; and

5. Analyze the results to establish the best classifier for children with or without ASD in real clinical cases, together with phenotypic and epidemiological data.

Acquisition of Equipment and Permanent Materials for IMRea

This project, which will benefit IMRea, was made possible through an agreement signed at the end of 2017 between FFM and the Ministry of Health and aims to acquire and replace permanent equipment and materials for the outpatient area and hospitalization.

The updating and acquisition of permanent equipment and materials in favor of the well−being of people with disabilities are a constant challenge for IMRea, which makes it possible to provide modern equipment to its users.

In line with its philosophy of continuous improvement, in 2014, IMRea has improved its management and operational processes, seeking and winning the CARF Accreditation for three years, standing out as the first Brazilian organization to win this Accreditation. With this achievement, IMRea is among the main centers of reference in physical rehabilitation in the world, which justifies the renovation of its technology park.

In addition, it should be noted that this renewal is needed for IMRea to maintain its commitment in the development of care and management processes with the quality required by a Model unit, which is only possible with modern equipment and good operating conditions.

Association of Transcranial Current Stimulation (ETCC) with Partial Weight Support in Robotic Device (Lokomat) for Treatment of Patients with Incomplete Traumatic Spinal Cord Injury

This project, which began at the end of 2015 and continued in 2017, was approved by the Ministry of Health, within the framework of PRONAS/PCD, which provides for the raising of resources of individuals and legal entities with deduction of income tax, and benefited the IRLM. Funding from private initiative (Itaú Group) was made at the end of 2014.

The present study has the general objective of analyzing the effects of the association of transcranial direct current stimulation (CTEF) with partial weight bearing training in the robotic device (Lokomat) for the treatment of patients with incomplete traumatic spinal cord injury.

The main objective is to test the hypothesis that the supplementation of the training in the robot by the active CTSE treatment will be more effective in obtaining the excellence of motor performance, compared to the training associated to the placebo stimulation.

Training: Rehabilitation in Brain Injury

This project, which began in mid-2016 and was discontinued in 2017, was approved by the Ministry of Health under PRONAS/PCD, which provides for the collection of resources from individuals and legal entities with deduction of income tax, and benefited the IRLM. Funding from private initiative was made at the end of 2015.

The objective of the proposal was to conduct a course, which would aim to qualify the participants with technical knowledge of the main competences of a multidisciplinary and interdisciplinary rehabilitation program for patients with encephalic cerebrovascular accident (stroke), including the indication and the application of the use of technologies.

It also aimed to promote the recognition of the health demands of a patient with stroke sequelae, providing home care guidelines and correct referral to rehabilitation centers or for maintenance treatment and, thereby, reducing the morbidity and mortality resulting from the sequelae of stroke and also The probability of relapse, allowing greater functional independence and, where possible, early reintegration into society, be it in work, educational, sports or leisure activities.

Permanent Education Program: Improvement Course for Workers in Orthopedic and Prosthesis Workshops, linked to SUS (IOT)

The National Policy on the Health of Persons with Disabilities defines as general purposes: to protect the health of the disabled person; To rehabilitate persons with disabilities in their functional capacity and human performance, contributing to their inclusion in all spheres of social life; and prevent diseases that determine the appearance of deficiencies.

Orthopedic workshops are confection, dispensation, adaptation and maintenance services for orthotics, prostheses and ancillary means of locomotion. These workshops need to have qualified and qualified human resources to enable them to meet the specific objectives that make up the Network of Care for Persons with Disabilities, among them the expansion of the supply of Orthoses, Prosthetics and Locomotion Assistance (OPM).

This project, **carried out by the IOT**, through an agreement signed between FFM and the Ministry of Health at the end of 2012, provides for a course aimed at improving the workers of orthopedic and prosthetic workshops − public, private and philanthropic − that work linked to the SUS, representing an action of permanent education directed to the fulfillment of policies established in favor of People with Disabilities and was continued in 2017.

The course is free and will enable, with theoretical and practical classes, **32 workers** from orthopedic workshops linked to SUS in confection and maintenance of lower limb prostheses, suropodal orthoses and wheelchair adequacy.

Permanent Education Program: Improvement Course for Workers in Orthopedic and Prosthesis Workshops, linked to SUS (IMRea)

The National Policy on the Health of Persons with Disabilities defines as general purposes: to protect the health of the disabled person; To rehabilitate persons with disabilities in their functional capacity and human performance, contributing to their inclusion in all spheres of social life; and prevent diseases that determine the appearance of deficiencies.

Orthopedic workshops are confection, dispensation, adaptation and maintenance services for orthotics, prostheses and ancillary means of locomotion. These workshops need to have qualified and skilled human resources to enable them to meet the specific objectives that make up the Network of Care for Persons with Disabilities, among them the expansion of the supply of Orthoses, Prosthetics and Locomotion Assistance (OPM).

This project, **carried out by IMRea**, through an agreement signed between FFM and the Ministry of Health at the end of 2012, provides for a course aimed at the improvement of workers in orthosis and prosthetics workshops − public, private and philanthropic − that work linked to the SUS, representing an action of permanent education directed to the fulfillment of policies established in favor of People with Disabilities and was continued in 2017.

The course is free and will enable, with theoretical and practical classes, **70 orthopedic workers** linked to the SUS in confection and maintenance of lower limb prostheses, sutromodal orthoses and wheelchair adequacy.

ICESP Rehabilitation Center

The IMRea, beneficiary of a donation from a public civil action filed by the MPT against a company, which was carried out as a substitute for the reparation of collective moral damages, enabled the facilities of the ICESP Rehabilitation Center, inaugurated on September 22, 2008.

The ICESP Rehabilitation Service is focused on the care of persons with disabilities, transient or permanent, aiming to optimize their functional potential, in the physical, psychological and social participation spheres. Rehabilitation focuses on the stimulation of functional potential and independence, but also seeks to help patientsadaptarem a suas limitações, a fim de adapt to their limitations in order to live as fully and independently as possible. For that, it counts on physiatrists, physiotherapists, speech therapists, neuropsychologists, occupational therapists, rehabilitation nurses and physical educators.

The team's performance in the hospitalization units permeates the entire Institute and monitors its growth. These units have a rehabilitation room, aimed at the patients inpatient in the outpatient clinics, and with the Rehabilitation Center, aimed at outpatients.

These activities continued in 2017.

Project to manage intervention projects in the schooling process of students with special educational needs, through the Specialized Pedagogical Support Center – CAPE

The CAPE − Specialized Pedagogical Support Center − was created by the State Secretariat of Education of São Paulo in 2001 to support the process of inclusion of students with special educational needs in the State Education Network. The center acts in the management, follow-up and support to the regional actions of special education, in the processes of continuous formation, in the provision of resources and in the articulation of the schools with the community, proceeding to orientations and referrals.

This project, supported by the FFM, facilitates the actions developed by the Specialized Pedagogical Support Center of the SEE, with the purpose of strengthening the learning teaching process following the principle of school inclusion, through the performance of Multidisciplinary Assessments through a team composed by Speech Therapists, Psychologists, Psychopedagogues and Occupational Therapists.

The multidisciplinary approach (health and education) of the evaluation allows a direct and

qualified action with the schools and, especially, with the teachers, with devolutives and orientations directed to the family, educators and school staff, according to the specific needs of each student in the aspects of school and social development.

With ample attendance in the state, the project attends the 91 Regional Directorates of State Education, involving the 645 municipalities of São Paulo. The work of the multiprofessional team is aimed at contributing to and promoting the inclusion of students with special education, such as students with intellectual, auditory, visual, physical, deaf blindness, multiple disabilities), Autistic Spectrum Disorder (ASD) and high skills or giftedness, enrolled in the schools of the state education network.

The professionals evaluate the functionalities and potentialities of each student, involving in this process the proposition of methods and activities aimed at improving the performance and learning of this target audience, respecting the space−time and the current condition of the student.

After the evaluation, activities are proposed that facilitate the process of inclusion of the student, considering their singularities: Specialized Pedagogic Attendance Service for students targeted by Special Education; Communicative Accessibility; Curricular Adaptation; Adequacy of access to the curriculum; Pedagogical mediation; Organizational proposals; Curricular enrichment; Aid for daily life; Accessibility features; Postural adequacy; Mobility aids; Prescription of adapted furniture; among others.

The CAPE Project was selected in 2016 and 2017 to participate in important international meetings, whose objective was to demonstrate effective practices of success in the field of inclusive health/education.

The participation of the Project in international events consolidated the good practices developed by the CAPE − promoting the effective practice of special education in an inclusive perspective in any school context. The Project had selected works in scientific events in Spain and Cuba.

In 2017, 2,025 evaluations were performed, 2,890 referrals, 450 interventions in the Occupational Therapy area and an average of 3,000 educators were trained.

Oncology Patients

In addition to the actions developed by **ICESP** (page 39), **ITACI** (page 75) and **InRad** (page 26), FFM was involved in several other initiatives that benefited cancer patients, among which the following projects.

Technological update and replacement of Monitors, Videolaparoscopy System, Surgical Center Rigid Endoscopes and Server replacement

The equipment is crucial for the surgical procedures, which require quality in the visualization of images and an effective monitoring of the haemodynamic parameters. It will ensure a safer procedure for performing the work of surgeons and anesthesiologists.

This project, which will benefit ICESP, made possible through an agreement signed at the end of 2017, between FFM and the Ministry of Health, aims to update the technology of Monitors, Videolaparoscopy System, Surgical Center Rigid Endoscopes and Server Replacement because of its obsolescence.

Technological update and equipment replacement of the Imaging Area

The equipment of the Imaging Area is of crucial importance in order to be able to accurately visualize the internal structures and organs, identifying possible pathologies and lesions and allowing the realization of a safe diagnosis and issuing accurate medical reports.

This project, which will benefit ICESP, made possible through an agreement signed at the end of 2017 between FFM and the Ministry of Health, aims to replace equipment from the Imaging Area in the phase of obsolescence and others already obsolete.

Technological update and replacement of equipment of the Outpatient Clinics, Surgical Center, CME, Assistance, Physiotherapy, Day Hospital, hospitalization, Radiology, Rehabilitation, ICU and other areas

Modern and effective equipment is of critical importance for patient care, providing comfort and more agile and efficient care in several areas, ensuring greater safety to the medical and health care teams, through the performance of safer procedures and operation of areas that maintain the flow of procedures in several areas, in addition to meeting the need of the Material and Sterilization Center (CME) area, which is responsible for cleaning all materials needed for the functioning of the Surgical Center and Endoscopy.

This project, which will benefit ICESP, made possible through an agreement signed at the end of 2017 between the FFM and the Ministry of Health, aims to update the technological equipment of Outpatient Clinics, Surgical Centers, CME, Assistance, Physiotherapy, Day Hospital, Hospitalization, Radiology Rehabilitation, ICU and other areas, besides the replacement, due to obsolescence, of computers and barcode readers used in several areas.

Technological update and replacement of ICESP Diagnostic Support and Therapy equipment

Radiological diagnostic monitors are essential equipment, since they allow the visualization of the images generated by Resonance, Tomography and Ultrasound.

The flexible endoscope allows the visualization of cavities of the head and neck region in order to locate lesions and tumors.

Such equipment has a high frequency of usage and is currently obsolete and unrepairable, requiring its replacement.

This project, which will benefit ICESP, made possible through an agreement signed at the end of 2017, between FFM and the Ministry of Health, has the objective of renewing the technological park of the equipment used in image diagnosis.

Breast's Pictures

This project, which benefited ICESP, was approved, at the end of 2016, by the Ministry of Health, within the scope of PRONON, which provides for the collection of resources from individuals and legal entities with deduction of income tax. Funding from the private sector was finalized in 2016, but its start depends on the budgetary rearrangement approval.

Breast cancer is the second most common neoplasm in the world, and the first among women. GLOBOCAN (Estimated Cancer Incidence, Mortality and Prevalence Worldwide) estimates that in Latin America there are approximately 115,000 new cases of breast cancer each year (Ferlay, 2010) and in Brazil, according to the National Cancer Institute (INCA), an estimated 57,120 new cases occur in 2014 (INCA, 2014).

The objective of the research will be:

a) to analyze the molecular alterations of breast cancer through complete exome sequencing;

b) to correlate molecular findings with clinical, epidemiological, histological and immunohistochemical data;

c) to study and select potential molecular markers with prognostic relevance (clinical evolution) or predictive (response to treatment);

d) to establish standardization of (non-invasive) methodology in plasma (CTCs, VEs and ctDNA);

e) to analyze the potential molecular markers found in the plasma exome for monitoring breast cancer; and

f) to develop a computerized system that integrates the different databases of patients with breast cancer (molecular, clinical, pathological and imaging) for integrated analyses.

Training in Patient Care Critical Oncology and Imaging Diagnosis in Oncology

This project, which benefited ICESP, was approved, at the end of 2016, by the Ministry of Health, within the scope of PRONON, which provides for the collection of resources from individuals and legal entities with deduction of income tax. Funding from the private sector was finalized in 2016, but its start depends on the budgetary rearrangement approval.

The National Cancer Care Policy determines the need to qualify the assistance and promotion of the permanent education of the health professionals involved with the implementation and implementation of the Oncology Care Policy, in addition to promoting the training and specialization of human resources.

This project aims to disseminate best practices for all services that have teams that need improvement of the activities related to the attention to the severe cancer patient and/or training in diagnostic imaging, in order to disseminate good practices and collaborate with quality of the care provided to the SUS patient served by the health care network of the São Paulo State.

The idea is to train professionals, who work in the SUS network of the State of São Paulo in patient care, in the following modalities:

a) conducting Magnetic Resonance, Computed Tomography, Bone Densitometry, Contrasted Examinations, Mammography, Radiological Protection and Digital Radiology;

b) performing imaging tests that collaborate with diagnosis in critically ill patients with cancer;

c) epidemiology of the critical patient with cancer; and

d) evaluation, diagnosis and treatment of critical patients with cancer.

Evaluation of the Safety and Efficacy of Synthetic Phosphoethanolamine in Patients with Advanced Solid Tumors

Oncological diseases represent the second main cause of mortality in the general population today, with an estimate by the Ministry of Health of 196,954 deaths in the year 2013. Important advances were observed in the treatment and care of cancer patients, In the last decades, and the number of patients that reach the cure or survive with quality of life to the diagnosis of cancer is increasing. However, for an expressive group of patients, the therapeutic options currently available are insufficient, which makes the search for new treatments a constant challenge for Medicine.

Phosphoethanolamine (FEA) is a primary amine, which plays a central role in the biosynthesis of cell membrane phospholipids. The search for the antitumor potential of FEA occurred from the observation of the cytotoxic effects on tumor cells with the synthetic analogues of lysophosphatidylcholine, a new category of drugs collectively called antineoplastic alkylphospholipids, which target not the DNA but the cell membranes.

Despite promising results from preclinical studies with the use of synthetic FEA in tumor models, no clinical study has been published to date. Thus, the efficacy of synthetic FEA in humans, or even its toxicity profile, is not known. However, this substance has been widely used by cancer patients as an alternative treatment. In this uncontrolled experience there are individual reports of potential benefits and, to date, no significant toxicities reported by users, justifying the conduct of a clinical study to evaluate the safety and efficacy of FEA in patients with solid neoplasms.

Through an agreement signed in 2016 between FFM, HCFMUSP and SES-SP, this study continued in 2017 and is being carried out in the premises of ICESP.

Use of Laser Fluorescence with SPY ELITE, PINPOINT and FIREFLY Robotic Platform in Surgical Cancer Treatment

This project, which began in mid-2016 and continued in 2017, was approved by the Ministry of Health, within the scope of PRONON, which provides for the collection of resources from individuals and legal entities with deduction of income tax, and benefited ICESP. Funding from private initiative was made at the end of 2015.

The objectives of the research are: **1)** to determine the incidence of complications related to tissue ischemia in the short and medium term, local, in patients submitted to oncological surgical procedures; **2)** to analyze the influence of circulatory mapping during the intraoperative period and potential associations with the incidence and prevention of complications determined in item **1)** and to compare with the historical series of the same institution; **3)** to evaluate the efficacy of the method for identification of lymph node structures of interest in the state and treatment of patients with digestive, urological and gynecological tumors; and **4)** to evaluate the impact of local and systemic complications on the hospital cost of surgical treatment of cancer and the influence of the use of fluorescence in the surgical treatment of cancer.

Towards Liquid Biopsies

This project, which benefited ICESP, was approved, at the end of 2014, by the Ministry of Health, within the scope of PRONON, which provides for the raising of resources of individuals and legal entities with income tax deduction. Funding from the private sector was finalized in 2014 and the project started at the end of 2015.

The general objective of the proposal is the study of the evolution and heterogeneity of tumors, from individualized tumor cells in the bloodstream.

The specific objectives are:

a) longitudinally collecting blood samples from patients with colorectal carcinoma, breast, lung, head and neck tumors and melanoma, evaluating the number of circulating cells/particles derived from the tumor and sequencing their contents; and

b) to relate laboratory variables, such as number of cells/particles, abundance of nucleic acids and in sequences with clinical endpoints, in response to therapy, disease-free interval and overall survival.

These activities continued in 2017.

Training in oncology, palliative care and pain for the cancer network of the State of São Paulo

This project, which benefited ICESP, was approved, at the end of 2014, by the Ministry of Health, within the scope of PRONON, which provides for the raising of resources of individuals and legal entities with income tax deduction. Funding from the private sector was finalized in 2015.

The objective of the project is the realization of free permanent education courses for professionals working in the Oncology Network SUS of the State of São Paulo in the following modalities: technical training in Radiotherapy; Technical training for Dosimetrista in Radiotherapy; Permanent education for physicians in Radiotherapy; Permanent medical education in pain and palliative care; Permanent multiprofessional education in pain and palliative care; and Multiprofessional continuing education in oncology.

The project was started at the end of 2015 and continued in 2017.

Replacement, due to obsolescence, of equipment for ICESP

The technological updating of equipment is necessary to provide a more agile, efficient and comfortable service to the patient and the medical staff.

This project, approved at the end of 2016 and carried on in 2017, will benefit ICESP, is supported by the Ministry of Health, and has the objective of technological update of echocardiograph, oximeters, computers and server, in addition to the acquisition of otoscope, for the deployment in emergency and emergency care to employees, and the acquisition of televisions to replace projectors by obsolescence.

Acquisition of Computerized Tomography Intervention for ICESP

The technological updating of equipment is necessary to provide a more agile, efficient and comfortable service to the patient and the medical staff.

This project, approved at the end of 2016 and and carried on in 2017, which will benefit ICESP, was made possible through an agreement between FFM and the Ministry of Health, and aims to update the technology of tomography equipment of interventional radiology, making possible the increase in the number of procedures Interventionists with higher image quality and efficacy in evaluations for treatment of cancer patients.

Acquisition of Videogastroscopes, Shower Chairs and Air Conditioning Splits for ICESP

This project, approved at the end of 2016 and and carried on in 2017, which will benefit ICESP, was made possible through an agreement between FFM and the Ministry of Health, and it has the objective of Flexible Endoscope Replacement (Fibroendoscopy) and bathing chairs and the acquisition of splits of Air conditioning for installation in the logistics area of supplies of medical and hospital materials.

With this, it is intended the technological updating of equipment and the guarantee of the climatization of the inventory of hospital medical materials, obeying the best practices of storage of products.

Replacement, due to obsolescence, of monitoring center and multiparametric monitors for ICESP

Equipments of crucial importance for patient care, providing real-time data of their physiological conditions, the Monitoring Center allows the integration of the monitoring equipment, providing a more agile, efficient and comfortable service to the patient and the medical staff.

This project, approved at the end of 2016 and and carried on in 2017, which will benefit ICESP, was made possible through an agreement between FFM and the Ministry of Health, and it has as its objective the acquisition of monitoring center and multiparametric monitors, which are currently leased.

Acquisition of hospital beds for ICESP patients at high risk of falls

Prevention is a WHO guideline established in Brazil through the National Patient Safety Program (PNSP), Administrative Rule No. 529 of April 1, 2013. There are several factors that put cancer patients at high risk for falls. Cancer treatments often affect coordination, balance, blood pressure, and sensations. Staying in bed and decreased activity leads to loss of muscle strength, changes in physical and mental state.

Currently, beds have characteristics that do not meet the needs of care for patients classified as having a high risk of falls: **a)** Bed with fixed height, without control: Maximum height of 45 cm; **b)** Height of the bars: from the platform to grade 43 cm, being at least 40 cm.

This project, developed by ICESP, through an agreement signed at the end of 2015 between FFM and the Ministry of Health, aims at the acquisition, for ICESP, of beds suitable for patients with high Risk of falls for clinical and surgical units, which have the following characteristics: **a)** Greater range of movements; **b)** Head Angle of 60º and Angle of knees of 28º; **c)** Bed height control; **d)** Less space between upper and lower grids.

These activities continued in 2017.

Acquisition of monitoring center, multiparameter bedside and transport monitors for ICESP

Equipments of crucial importance for the care of the patient, providing real-time data of their physiological conditions, the Monitoring Center allows the integration of the monitoring equipment, providing a more agile, efficient and comfortable service to the patient and the medical team, as it allows the monitoring of vital signs directly from the clinical staff's workstation remotely, without the need for displacement between beds.

This project, developed by ICESP, through an agreement signed at the end of 2015 between FFM and the Ministry of Health, has the objective of acquiring monitoring center and multiparameter bedside monitors for the areas of ICU, ambulatory, Post-anesthetic recovery (RPA) and transport monitors to the surgical center, replacing the current equipment, which are leased.

These activities continued in 2017.

Technological update of ICESP equipment

The technological updating of equipment is necessary to provide a more agile, efficient and comfortable service to the patient and the medical staff.

This project, developed by ICESP, through an agreement signed at the end of 2015 between FFM and the Ministry of Health, has the objective of acquiring replacement equipment due to obsolescence or due to complexity/new diagnostic techniques/pathologies related to the toxicity of chemotherapies in patients with heart disease.

These activities continued in 2017.

Technological suitability of the radiotherapy service of the Cancer Institute of the State of São Paulo

With the largest and most advanced radiotherapy and imaging park in Latin America, the continuous technological update aims to guarantee the reliability, dynamism, efficiency and productivity of the service.

Planning Systems are used by physicians and dosimetrists at different stages of the planning process. Since its inauguration, ICESP has increased the number of attending physicians and residents by approximately 30 %, which currently consists of nine physician assistants, one medical coordinator and 18 resident physicians.

It is necessary, therefore, to increase the use licenses of the planning systems, to optimize the routines of the area and the productivity of the sector as a whole.

The objective of this project, developed by ICESP and initiated at the end of 2015 through an agreement signed between FFM and the Ministry of Health, is to complement the quantitative of the planning system of the radiotherapy service of the institute.

These activities continued in 2017.

Project of Acquisition of Videolaparoscopy and Fibroendoscopy System for the Cancer Institute of the State of São Paulo

ICESP provides the care of cancer patients referred by an established referral network, currently having 42,000 patients in care, with about 1,000 new cases sent per month.

This project aims at the acquisition of videolaparoscopic equipment, which will allow the performance of transurethral resection surgeries, thoracoscopies, gastrectomies, prostatectomies, colectomies, rectum amputation, hysterectomies, transortal resection of laryngeal and pharyngeal cancer, cystectomies, nephrectomies, by video, all for cancer treatment.

Regarding fiberoptic endoscopy, the nasopharyngoscope may be able to diagnose malignant tumors of the upper digestive tract.

The objective of this project, developed by ICESP and initiated at the end of 2015 through an agreement signed between FFM and the Ministry of Health, is to diagnose and surgically treat, by video, patients with malignant tumors in a minimally invasive way.

These activities continued in 2017.

Immunohistochemical characterization of new antibodies of interest oncology

This research, coordinated by LIM 14, discontinued in 2017, was made possible through a contract signed in 2006 between FFM and PR&D Biotech S/A and was supported by FINEP and the Butantã Foundation.

Chemotherapy has been shown to be an efficient technique in the treatment of advanced stage tumors. The studies in the area are able to produce drugs with increasingly specific morphological characteristics, according to the type of neoplasia and even the patient's own specificities. However, this therapy ends up destroying non-tumor cells in the process, because it detects any proliferating cell.

In this scenario, there are researches in Oncology with the objective of discovering less aggressive forms of treatment, able to recognize and eliminate only the neoplastic cells.

The aim of the study was to identify the antigens related to the Lewis y antibodies (hu 3S193), Lewis b, from Sloan−Kettering Memorial Hospital, in samples of colorectal, ovarian and prostate cancers, MX 35 in ovarian cancer and A34 in cancers of the prostate, stomach and esophagus, as well as in normal tissues.

Its specific objectives were:

a) the anatomo−pathological review of the selected cases, for making Tissue microarrays (TMA's) and preparation of database in the form of spreadsheets, with all the information pertinent to the different cases;

b) the selection and marking of areas in the slides and respective paraffin blocks, for later confection of the TMAs;

c) supervision and technical assistance in the construction of TMA blocks;

d) the preparation and presentation of seminars on topics related to ongoing research;

e) analysis and interpretation of the immunohistochemical results, obtained from the cases arranged in the TMAs, with tabulation of the data in own matrices for later statistical evaluation; and

f) involvement in the preparation of data and activity consolidation reports, as well as evaluation of results, for publication in periodicals.

Children and Youth

In addition to the actions developed by the **ICr** (page 29) and the **"Vision of the Future"** (page 51), FFM was involved in several other initiatives that benefited Children and Youth, among which are the projects below.

Early Childhood Health and Stimulation Program: Survive and thrive Boa Vista – Pre-project

This project, developed by the Discipline of Pediatrics of FMUSP, through a contract signed between FFM and FMCSV, began in mid-2017 and was completed at the end of 2017.

Children who have developed in deprived urban areas in Brazil are continually exposed to substantial amounts of adversity, such as pollutants, domestic and external violence, unstable family environments, maternal depression, and inadequate or insufficient opportunities for learning. These disadvantages are particularly notable in *favelas*, peasant or squatter settlements, characterized by the lack of sanitation and hygiene, high air pollution levels, high criminality within the neighborhood and, in many cases, social isolation, which may result in higher incidence and prevalence of maternal depression.

The project addressed two of the main problems of early childhood in Brazil: the continued rates of infant mortality, especially during the first year of life, and the large disparities in child development.

The proposal was to broaden the intervention package, beginning with gestation, in order to allow a healthy start for the baby. The main innovation of the project was to establish a program in Boa Vista that, through community health agents, will support the mothers and bedside caregivers up to 36 months after the child birth.

Karma Project: Diversity and Impact of Emerging Collective Intelligence and Consciousness

This research was initiated in 2017 by the IPq, through a contract signed between FFM and the Harvard University.

Psychiatric disorders are one of the leading causes of health burdens. Most of these disorders begin in childhood or adolescence, and about one in ten children worldwide has a diagnosis of this type. However, little investment in research is allocated for the study of mental disorders in this age group. Very little is known about the risk and protection factors in the trajectories related to the origin and course of these disorders. The investigation of these trajectories can bring important advances in the treatment and, mainly, in its prevention.

The main objective of this research is to seek environmental, genetic, biochemical, neuropsychological and neuroimaging information in order to investigate risk and protection factors that can inform about negative and positive outcomes related to mental health in childhood, adolescence and early adulthood, as well as inform about high risk criteria to advance in mental health prevention strategies and generate knowledge in neuroscience that spark new ideas for new therapies.

Risk factors and protection for violent behavior among teenagers in the city of São Paulo – São Paulo Project for the social development of children and youth

This study, developed by the Department of Preventive Medicine of FMUSP, through a contract signed between FFFM and the University of Cambridge, began in late 2016 and continued in 2017.

In Brazil, there are no studies that consider individual, situational and contextual risk factors in the determination of violent behavior among adolescents and young people using multilevel analysis models.

The objectives of this project are:

1) to estimate the prevalence of violent behavior and victimization;

2) to investigate the association between individual, situational−relational and contextual characteristics with violent behavior and victimization; and

3) to analyze, in a comparative way, the prevalence and factors associated with violent behavior and victimization in São Paulo, Montevideo and Zurich.

It is a cross−sectional study, with a representative sample of adolescents attending the ninth year of elementary education in the public and private network of the city of São Paulo, population estimated at 3,300 subjects.

The schools will be approached in three stages: (i) presentation of the proposal to the State and Municipal Secretariats of Education of São Paulo; (ii) contact with the Regional Teaching Offices; and (iii) contact with directors to schedule submission of the proposal and request authorization for data collection.

Data collection will be done in the classroom, through a digital platform, with questionnaires made available to the students through self-filling tablets, based on those used in the Zurich Project on the Social Development of Children and the Proyeto Montevideo for social development of children and teenagers.

The questionnaires will be previously coded with the same number that identifies the class and the school. Also, a questionnaire, with information about characteristics of the context and school structure, will be applied to the directors of the selected schools. In addition, structural characteristics of the school space and its environment will be recorded through observation, following a structured guide.

Influenza Incidence Study among children and adolescents in Araraquara, Brazil, 2016−2017

This study, developed by IMT-USP, through a contract signed between HCFMUSP, FFM and Sanofi Aventis Farmacêutica Ltda., was initiated at the end of 2016 and carried on in 2017. It is an amendment to the project entitled "Dengue Incidence Study Brazil, in municipalities of high and medium endemicity Goiânia-GO and Araraquara-SP (Chapter "Research Projects" of this report). The main objective of the study is to determine the incidence of influenza virus and other respiratory viruses in the cohort studied, which will help evaluate future strategies for vaccination against dengue.

The Effect of the Visitation Program for Young Pregnant Women on Child Development: A Pilot Study

This project, developed by IPq of HCFMUSP, through a contract signed between FFM and the Foundation for Scientific and Technological Development in Health − FIOTEC, began in mid-2016 and was finished in 2017.

To complement the use of the HAZ and HAD scores, which provide distinct and valuable data on growth reduction and recovery, and to allow evaluation alternatives, a new tool, the Pixel Averages for Auxiliary Assessment (PIXA), was developed to obtain frequent and accurate measures of length or height.

This approach will be tested in the context of a randomized clinical trial evaluating an intensive home visitation program for adolescent pregnant women and subsequently on their children to promote child development and prevent exposure to toxic stress.

The main objective of this proposal is to test an innovative method, from the PIXA tool, to obtain frequent and precise measurements of height or length in the home environment, thus improving the detection capacity of suppression and recovery of child growth.

Institute for the Treatment of Childhood Cancer – ITACI

In 2017, the FFM, in partnership with SES-SP and HCFMUSP, through an Agreement, supported the activities of the ITACI of the ICr, a reference in the care of children with cancer.

The current HCFMUSP Onco Hematology Service **(SOH)**, known as ITACI, started its activities on 12/17/2002, with the activation of 12 doctors' offices and two rooms for ambulatory procedures, as well as 12 hospital beds/day for chemotherapy. On 06/16/2003, began the care in the area of hospitalization, opening six of the 17 beds installed. Since 2009, it has two beds for hematopoietic stem cell transplantation.

The teaching, research and assistance activities are developed for children and adolescents aged 0 to 19 years old who have onco-hematological diseases from the SUS or from the supplementary health system.

In November 2017 the CTIO1 – Oncology Intensive Care Center was reopened.

In 2017, under the coordination of the ITACI Humanization Group, several initiatives were undertaken. In June, another "Charity Night" was held, whose objective was the exchange of air conditioning chillers. The traditional June Party (Festa Junina) was also held for patients, with the participation of around 200 people.

Christmas party held at ITACI in 2017

From August 22 to 30, a process was carried out to train a group of nurses in Integrative and Complementary Practices of Health Care (PICS) in the treatment of childhood cancer. The initiative, pioneered in Brazil in tertiary care of Pediatrics, follows the guidelines of the National Policy on Integrative and Complementary Practices (PNPIC), proposed by the MS and WHO. The group of nurses was trained to incorporate Anthroposophical Nursing into their care routines. Practices include foot scrub and massage.

In August, in a partnership with the Ronald Institute, ITACI was once again benefited by the Project McHappy Day, whose objective was the purchase of several equipment. ITACI actively participated in the *Golden September* campaign for early diagnosis in the fight against childhood and juvenile cancer, the largest campaign to raise the flag of early diagnosis and awareness that this is a powerful weapon to combat childhood and juvenile cancer. In October, the traditional show for patients and companions was held, with the theme "Trick or Treat", with the presence of about 350 people and distribution of 500 toys. Once again, for Christmas, about 500 toys were distributed.

In October, singer Samuel Rosa took part – for the third year in a row – in a charity night and held a pocket show at Fundação Maria Luiza and Oscar Americano in support of ITACI. At the end of the activities of 2017, the singer Samuel Rosa held a show for about 250 people, among employees and patients with companions.

In 2013, ITACI received the certification of ONA 1 Accreditation and, in 2014, obtained the seal maintenance. In 2015, ITACI received Accreditation ONA Level 2 – Full Accreditation, which, in addition to meeting patient safety criteria, presents integrated management, with processes occurring in a fluid and full communication between activities. In August/2016 it received the maintenance of Accreditation ONA Level 2 – Full Accreditation. In 2017, it received again ONA Level 2 Accreditation – Full Accreditation.

In 2017, the main indicators were as follows:

ITACI – 2017 INDICATORS			
Parameter	**SOH**	**Transplants**	**CTI**
Occupancy rate	84.9%	90.7%	90.3%
Average Stay (in days)	13.9	54.4	7.2

In 2017, there were **19,854** medical consultations; **18,257** multiprofessional consultations; **40** Hematopoietic Stem Cell Transplants, of which **12** Autologous, **15** Related Donor Allogeneic Transplantions and **13** Matched Unrelated Donor Allogeneic Transplantions; and **8,034** outpatient chemotherapy sessions.

Disease in early childhood development: a study of birth cohorts in the Brazilian Amazon

This study, developed by ICB−USP, through an agreement signed with the David Rockefeller Center for Latin American Studies − Harvard University, with the intervention of FFM, began in mid-2016 and was finished in 2017.

There is a paucity of information about nutritional recommendations in pregnancy, based on evidence that considers obstetric and postnatal outcomes for both mother and baby, especially in low- and middle−income countries. This project integrates a program of epidemiological research on health conditions and maternal and child nutrition.

The main objective was to initiate a birth cohort to investigate determinants measured during pregnancy, associated to the health and nutrition profile of infancy in the city of Cruzeiro do Sul, in the state of Acre. The study design will be of the longitudinal type of population base, from the tracing of pregnant women in the municipality. Obstetric data and prenatal, anthropometric, dietary and biochemical maternal and infant care will be collected.

The results of this research will contribute to the planning of intervention actions aimed at reducing the gestational risk associated with morbidity and nutritional disorders and their consequences on child health.

Families and Women

In addition to the actions developed by the **Bandeira Científica** Project (page 48), FFM was involved in some initiatives that benefited Families and Women, among which are the projects below.

Improving the response of primary health care to violence against women in middle- and low-income countries – the case of SP, Brazil

This research was initiated in 2017 by the Department of Preventive Medicine of FMUSP, through a contract signed between FFM and the University of Bristol.

Violence against Women (VCM) has an impact on health and socioeconomic aspects, making prevention and coping with the health care system a global priority. In this perspective, a broad project coordinated by the University of Bristol (UB) intends to build an international multidisciplinary network to fight domestic violence against women.

The objective of this initiative is to develop and test the feasibility of an intervention to be performed in the scope of primary health care (PHC) to VCM. Specific objectives are:

a) to assess readiness for primary care services and identify VCM, respond to the needs of women in situations of violence, and provide referrals to specialized services;

b) to reach a consensus in these services on an intervention model that includes support for training and referencing; and

c) testing the feasibility and acceptance of the intervention at a pilot stage and assessing the process.

Cohort study with pregnant women to evaluate the risk of congenital malformations and other adverse consequences for pregnancy after Zika virus infection - ZIKAlliance Consortium

The objective of this study, initiated at the end of 2016 by the Department of Infectious and Parasitic Diseases of FMUSP, through a contract signed between FFM and the European Union, is to evaluate the causal relationship between Zika virus infection (ZIKV) during pregnancy and congenital malformations. The absolute and relative risks of congenital malformations and other adverse consequences for pregnancy among women who have been infected by ZIKV during the gestational period compared to uninfected pregnant women and to clinically characterize Zika congenital infection syndrome will be estimated.

The maternal–infant transmission rate of ZIKV will also be determined and cofactors or effect modifiers will be evaluated, contributing to the great variability observed in the preliminary estimates of absolute risk derived from population studies and microcephaly reports in different states of Brazil and from Latin America.

This will be a cohort study of pregnant women (MG) in areas at risk for ZIKV infection. Pregnant women will be included and followed up with visits every four weeks, performed in parallel to prenatal care. At each visit, urine and blood samples will be collected for testing and biobank storage.

For the MG who present during the follow-up uncharacteristic picture of fever and/or recent or present rash, the episode will be characterized in more detail. MG with suspected ZIKV infection (ie, according to the PAHO − Pan American Health Organization) during pregnancy will be monitored in accordance with national protocols. Regardless of the symptoms, the MG included in the study will be followed prospectively after inclusion and reassessed at birth (or after miscarriage) for detailed documentation of pregnancy outcome.

Live newborns will receive a detailed neonatal examination, during which biological samples will be collected and stored. Other potential causes of congenital anomalies (TORCHS maternal infection,

toxic substances, chromosomal abnormalities) and potential effect modifiers or interaction factors (eg., infections/prior vaccination by other flaviviruses, socioeconomic status) will also be evaluated.

After appropriate counseling and consent, biological samples will be collected from seriously malformed newborns, deceased newborns, stillbirths, and aborted fetuses of ZIKV−infected mothers to help elucidate the etiological contribution of ZIKV to neurological malformations and other congenital malformations.

These activities were carried on in 2017.

Elderly

In 2017, FFM was involved in several other initiatives, which involve public and private institutions, which benefited the elderly, among which are the projects below.

Genomic Risk Factors for Alzheimer's Disease and Other Dementias in European−American Ancestry

The objective of this research developed by the FMUSP Geriatrics Discipline, through a contract signed in 2016 between the Rush University Medical Center, FMUSP and FFM − which was finished in 2017 − was the regularization of the activities of a Biobanco para Estudos de Envelhecimento (Biobank for Aging Studies) − BEE.

The BEE had three main objectives:

1) To evaluate, through a rigorous protocol, the clinical and anatomopathological profile of a large number of elderly individuals submitted to necropsy. Individuals assessed should compose a uma amostra heterogênea do envelhecimento, englobando indivíduos com ou sem doenças crônico-degenerativas.

2) To promote the collection of large amounts of data and biological material for a network of interdisciplinary research, which may cover aspects of normal aging and related chronic−degenerative diseases.

3) To form a critical mass of researchers and technicians, in diverse degrees of formation and also of multidisciplinary character, concentrated in the study of the human aging.

Ancestrality study in neurodegenerative diseases

This study, developed by the Discipline of Geriatrics of FMUSP, through a contract signed between the Rush University Medical Center, FMUSP and FFM, and the NIH grant, was approved at the end of 2016 and continued in 2017.

The prevention and treatment of Alzheimer's Disease (AD) and other dementias are priority issues in public health. Unfortunately, so far, there are no effective interventions. Understanding biology by linking genomic risk factors and dementia is urgent.

The proposed study will identify genomic variants in European and African ancestral loci, associated with the neuropathological indices of Alzheimer's Disease (AD), Cerebrovascular Disease (CVD), Lewy Body Dementia (DCL), Hippocampal Sclerosis (EH) and Tar Binding DNA protein 43 kDA (TDP−43). Finding the genomic variants related to these major neuropathological indices has a significant and sustainable impact in this field of study.

The objectives of the research are:

1. In an exploratory analysis of 6,000 deceased individuals, autopsied in the SVOC and included in the BEE, identify genomic variants and ancestry associated to the following indices:

a) Quantitative measurement of the pathological load of AD based on blades stained for tau and betaamyloid protein in multiple brain regions, as well as specific indices for amyloid plaques and neurofibrillary tangles;

b) Lewy's corpuscles in multiple brain regions using antibodies against alpha−synuclein;

c) Phenotypes for cerebrovascular diseases, such as macro and microinfarcts, atherosclerosis and hyaline arteriolosclerosis;

d) Deposits of TDP−43 in multiple brain regions, using specific staining for the phosphorylated protein; and

e) Hippocampal sclerosis.

2. Conduct identical confirmatory analysis in another 4,000 elderly autopsied in the SVOC and included in the BEE for:

a) Validate the associations found in objective 1; and

b) Conduct a joint analysis with 10,000 individuals to increase the power to detect alleles and haplotypes with lower magnitude of effect on different ancestralities.

"With Greater Care" and "Road Safety for the Elderly" Projects

The objective of this initiative, developed by the FMUSP Discipline of Geriatrics, through a contract signed in 2016 between Fundación Mapfre, FMUSP and FFM, was the holding of educational sessions addressing the themes "With Greater Care" and "Road Safety for the Elderly", both aimed at the elderly, their companions and professionals working with this age group.

The progressive aging of the population, with the need to maintain autonomy and independence of the aging, determines the need for services and, products better adapted to this emerging population.

This requires actions aimed at adapting the individual to this new phase of life, with strategies for prevention, diagnosis and treatment of causes that can cause functional limitations associated with environmental adequacy, in order to minimize the magnitude of potential impediments to activities that allow the elderly to integrate into the community.

These activities were finished in 2017.

Muscular Dystrophy Association – Jagged1 as a genetic modifier of Dystrophin Deficiency

This project was initiated by the Geriatrics discipline of FMUSP in 2015, through an agreement signed between FFM and the Muscular Dystrophy Association, and was finished in 2017.

Only about 20 years ago did the population begin to grow old enough for a number of neurological diseases to appear. Until the 1950s, life expectancy was little more than half of what we have today and, therefore, dementia did not have as a line of research.

In order for aging to happen in a healthy way, the individual must maintain the capacity to choose and make decisions, besides having autonomy and independence. It was observed the contrary of that the Group of Research in Aging was founded, in the middle of 2003, by researchers of the diverse areas of health.

Among the dementias, the main one is Alzheimer's, but there are others that are also common, such as vascular dementia and Lewy Bodies. Even if doctors are aware of the other diseases that lead to the same clinical picture, it is still impossible to discern what is happening in the brain in life, so the disease can be confused and treated inefficiently.

The brain of a person who has undergone more stimuli, studied more and had an active social cycle in life is physically more developed and has more connections than another who has not had the same privileges.

It is to advance in the studies that the researchers have a collection of brains for study, often denominated "bank of brains".

The team is already analyzing the lives of volunteers who will donate their brains to Post-mortem analysis, and from now on it will be possible to do an analysis according to the genotyping of each patient, carefully studying the appropriate treatment model according to ancestry.

In Duchenne muscular dystrophy (DMD) the absence of dystrophin in the muscle causes muscle degeneration, but other factors involved in the pathogenesis of the disease remain poorly understood and represent an unexplored territory for possible therapies.

Although there are several preclinical and clinical tests for a treatment for DMD, there is still no cure. The most recent approaches include cell therapy, exonskipping, restoration of mini−dystrophin expression via AAV and read−through aimed at increasing dystrophin in muscle. Although these therapeutic trials have shown some efficacy, there is still a need for complementary alternative approaches by altering the signaling pathways that generate disease pathology.

The elucidation of the mechanism of action of Jagged1 in muscle cells and dystrophic muscle may open new avenues for therapies.

Proposal for the Development of a Program of Permanent Education and Training of Health Professionals at the Reference Center on Cognitive Disorders, in the city of São Paulo

Dementias and, in particular, Alzheimer's disease have their prevalence increased with the aging of the population. Some Brazilian studies confirm this same tendency observed in population studies around the world.

The patient with dementia represents a direct cost to health services, due to an increase in hospital admissions and a higher risk of falls, besides indirect costs, due to the need of a caregiver, a majority of the family, or a paid professional caregiver; By income reduction, by the patient himself. Costs include: medical visits throughout treatment and at the time of diagnosis, drug treatment, treatment of other comorbidities, personal care, and expenses increasing with the stage of illness.

In Brazil, the costs of patients with dementia increase according to the severity of cognitive impairment.

Several studies have verified the reduction of expenses of patients with Alzheimer's disease to the public service, diagnosed early and in use of the appropriate medications. Therefore, early diagnosis and treatment, as opposed to making the system more expensive, reduce the cost of the disease; in general, by reducing the number of hours of care spent and slowing the progression of the disease, reducing dependency and institutionalization.

HCFMUSP is registered as a Reference Center for Health Care for the Elderly and is therefore in a position, according to the guidelines of the Ministry of Health, to create a model center for Alzheimer's disease and related disorders.

The objective of this project, initiated by CEREDIC−HCFMUSP, in 2014, through an agreement signed between FFM and the Ministry of Health, which continued in 2017, is to promote the update on aging and cognitive and Behaviors for SUS professionals, through: **a)** Provision of supervised internship to physicians in the basic health care network and specialists in specialized medical care units; **b)** Multidisciplinary care for the elderly with cognitive disorders; **c)** Remote support for the care of the elderly with cognitive disturbance, through telemedicine and partnerships with interested municipalities; **d)** Update Course on Cognitive and Behavioral Disorders of Aging: Multidisciplinary Approach; and **e)** Guidance manuals for care in the elderly with cognitive and behavioral disorders.

Fragility in the Elderly: Evaluation, Early Determinants, Evolution, Assistance Demands and Impact on the Use of Social and Health Services

The objective of this project, initiated by the Faculty of Public Health of USP in 2014, through an agreement signed between FFM and the Ministry of Health, which continued in 2017, is to develop studies and research to identify The determinants of the fragility syndrome among the elderly, aiming to strengthen and qualify the health care of the elderly with emphasis on basic care.

Fragility can be defined as a clinical syndrome characterized by decreased energy reserve and resistance to stressors, a result of the cumulative decline of multiple physiological systems, which increases vulnerability to adverse conditions, due to the difficulty in maintaining homeostasis in situations of exposure to more extreme situations.

According to Fried et al. (2001), the fragility would be in the form of a phenotype that includes five components that can be measured: **1)** Unintentional weight loss; **2)** Self-reported fatigue; **3)** Decreased strength; **4)** Low level of physical activity; and **5)** Decreased pace speed. The presence of one or two components of the phenotype would be indicative of a high risk of developing the syndrome (Pre-fragile) and three or more components would be present in fragile elderly.

Early detection of the components of the syndrome (Pre-frail condition) could prevent its installation, from the adoption of specific interventions. In our country, unlike that observed in developed countries, the syndrome has been settling earlier and given the increase in life expectancy of the population, this situation, in the medium and long term, will generate important health care demands, increase in the use of social services and health, and consequently a significant increase in related costs.

Fragility, however, is understood as a distinct clinical phenomenon of aging with potential for reversibility through appropriate interventions. early identification of the determinants of this condition among the elderly, their evolution and, consequently, the health care demands generated and the use of social and health services over time, in order to contribute to the adequacy of the Health and social policies.

Study of the Sociodemographic and Epidemiological Conditions of the Elderly Residents in Institutions of Long Stay for Elderly Registered in the Census SUAS

The objective of this project, initiated by the Faculty of Public Health of USP in 2014, through an agreement signed between FFM and the Ministry of Health, which continued in 2017, is to carry out an intersectoral census survey aiming at To draw the profile of the living and health conditions of the residents in the Long Stay Residents for the Elderly (ILPIs) registered in the Ministry of Health, as well as their structural conditions, to provide care to this population, in every country. The results will support the policy of reordering the host services.

With the growing aging population, the demands of the elderly population with greater social vulnerability and the need to improve social policies with an intersectoral approach are increasing. In this sense, for a more precise identification of such needs (social and health), it is necessary to carry out a specific Census of the elderly population residing in ILPIs.

Historically supported by social needs, it can be observed that, with the advancement of the age and the aging of the population, this profile is being modified and significantly increased of demands related to health. The specificity of such demands as well as the adequacy of structural resources to meet them is still unknown, including the important regional differences existing in our country. Thus, the Census of ILPIs, at the national level, intends to contribute to the formulation and/or reformulation of intersectoral actions that guarantee integral attention to the elderly, strengthening their rights guaranteed by the Statute of the Elderly and having as guiding axis the National Health Policy of the Elderly Person and the National Social Assistance Policy.

Research Projects

Research Projects

FFM supports the development of several research projects, which, with hundreds of papers published in indexed journals, gain global reach and visibility.

Main Research Projects

TOC Project – Research on Brain Markers Associated with Obsessive-Compulsive Disorder

This research was initiated in 2017 by the IPq through a contract signed between FFM and the Research Foundation for Mental Hygiene (The New York Psychiatric Institute) with the NIH subsidy.

Obsessive-compulsive disorder (OCD) is an important cause of disability. Some abnormalities in specific brain circuits have already been identified in association with OCD, but important knowledge gaps persist in this area. For example, it is unclear which specific abnormalities correspond to each OCD symptom profile, or how these abnormalities develop.

The objective of this research is to identify reproducible brain markers that correspond to specific measurable behaviors belonging to the dimensions of OCD symptoms. These brain markers may eventually be used to reveal manifestations of OCD that also manifest in other mental disorders (trans−diagnostic approach). Eventually, the identification of these markers may allow the development of disorders directed to these circuit abnormalities, paving the way for precision psychiatry.

Arbobios – A Translational study for the identification, characterization and validation of gravity biomarkers in arbovirus infections

This study will be developed by IMT of USP, through an agreement signed at the end of 2017 between FFM, USP, FAPESP and BioMérieux S/A.

Its general objective is to identify and validate prognostic biomarkers for Dengue (DENV), Chikungunya (CHIKV) and Zika (ZIKV) diseases, which allow the early stratification of the risk of developmental forms of diseases that represent higher morbidity and mortality: severe dengue (DG), chronic inflammatory joint disease post-Chikungunya (Post-CHIKV−DAIC), and congenital syndrome by ZIKV (SCV) with neurological affection, respectively.

Its specific objectives are:

a) to observe the natural evolution of the three arboviruses infections studied in a prospective cohort in order to identify demographic characteristics and clinical signs that aid in the differential diagnosis during the acute phase and / or in the risk assessment of complications;

b) to determine the frequency of development of complications of these diseases in the study population;

c) to assess the importance of pre-existing diseases to the risk of developing severe forms of disease;

d) to validate a panel of protein biomarkers from evolution to DG, previously identified;

e) to identify prognostic biomarkers for unfavorable evolution of diseases by DENV, CHIKV and ZIKV;

f) to produce information that contributes to the understanding of the dynamics of maternal-fetal transmission of ZIKV and the pathogenesis of the related congenital syndrome;

g) to study gene expression, transcriptome and immune response during specific arbovirus infection; and

h) to create a biobank of prospective and well-characterized samples.

Clinical Outcomes of Zika Virus Infection in Patients with Sickle Cell Disease

This research was initiated in 2017 by the Department of Infectious and Parasitic Diseases of FMUSP, through a contract signed between FMUSP, FFM and the Blood Systems Research Institute.

In February 2016, the World Health Organization declared the Zika virus (ZIKV) and its clinical implications as a public health emergency of international concern, and the US Centers for Disease Control and Prevention focused all efforts on the search for answers that have an impact on reducing the epidemic. ZIKV is spreading rapidly in the Americas, with a significant disease burden in Brazil. The impact of ZIKV on sickle cell disease (SCD) is currently unknown, but isolated case reports suggest that SCD may be a risk factor for increased morbidity and mortality associated with ZIKV. The American and Brazilian researchers involved in this clinical research submission have collaborated in the execution of several research projects, including ongoing studies involving a cohort of approximately 2,800 SCD patients and, separately, a study of the ZIKV transfusion transmission potential in Brazil, both part of the NHLBI, funded by the project REDS III: Recipient Epidemiology and Donor Evaluation Study.

This research proposal represents a unique and extraordinary opportunity to study a large number of patients with SCD in regions of Brazil that have recently suffered from the high activity of the ZIKV outbreak, taking advantage of an already successful infrastructure of research collaborations. The study intends to carry out a comprehensive characterization of the clinical impact of ZIKV in the SCD and to identify the main pathways involved in the pathophysiology of ZIKV. In turn, these data will provide strategies for screening, monitoring and treating ZIKV in a potentially vulnerable population.

Phase III Clinical Trial for the efficacy and safety evaluation of the Dengue vaccine 1, 2, 3, 4 (attenuated) of the Butantan Institute

This research was initiated in 2017 by LIM 60 of HCFMUSP, through a contract signed between FFM and the Case Western Reserve University with the NIH subsidy.

The study, which will evaluate the efficacy and safety of an experimental freeze-dried tetravalent dengue vaccine manufactured by the Butantan Institute, will be conducted in multiple centers in Brazil based on selected communities in urban areas where dengue transmission occurs.

The study intervention will be a single dose of the tetravalent or placebo vaccine in a 2: 1 ratio. For the analysis of efficacy will be considered all cases of dengue incidents after 28 days of vaccination in the entire population of 16,944 participants.

The hypothesis of the study is that the vaccine under investigation manufactured at the Butantan Institute is safe and provides protection against symptomatic dengue infection of 80 % or more, with a value of 25 % at the lower limit of the 95 % reliability interval. Thus, the expected number of virologically confirmed cases of dengue is 24 or more in order to achieve a response to efficacy. All participants will be followed up for five years to verify the incidence of medium-term dengue cases.

Phase III Clinical Trial for the efficacy and safety evaluation of the Dengue vaccine 1, 2, 3, 4 (attenuated) of the Butantan Institute

This study was made possible through a Scientific Technical Cooperation Agreement signed in 2016 between the Butantan Foundation, HCFMUSP and FFM and continued in 2017.

This is a randomized, multicenter, double-blind, placebo-controlled Phase III clinical trial to evaluate the efficacy and safety of the Dengue Vaccine 1,2,3,4 (attenuated) produced by the Butantan Institute. Participants in this study will be healthy and/or clinically controlled patients of both sexes, aged between two and 59 years, who will be stratified into three age groups: 2 to 6 years, 7 to 17 years and 18 to 59 years. Pregnant women, women who are breastfeeding or who intend to become pregnant within 28 days after vaccination cannot participate.

There is, to date, no licensed vaccine for dengue prevention with protection against four dengue serotypes; In this way, the Dengue Vaccine 1,2,3,4 (attenuated) produced by the Butantan Institute (product still under research) will be compared with a placebo. Voluntary participants will be randomized to receive a subcutaneous dose of the product still under research or placebo in a 2: 1 ratio. All participants will be followed up for five years for active dengue surveillance. Currently, there is no effective and licensed vaccine for the prevention of dengue, so it is not possible to use an active control to evaluate the aforementioned product. The use of a placebo will allow to appropriately determine the safety profile of the vaccine under test by comparing the incidence of adverse events.

Towards an Integrated Global Transport and Health Assessment Tool (TIGTHAT)

This research was initiated in 2017 by the Department of Preventive Medicine of FMUSP, through a contract signed between FFM and the University of Cambridge. Its purpose is to create a basis for building a modeling and impact assessment tool for health transport types that can be readily applied in cities in low- and middle-income countries.

Urban land transport has positive side effects (physical activity) and negative side effects (traffic accidents, noise pollution and air pollutants). Studies in high-income cities have found substantial health benefits for the population when there are changes to active trips, with predominance of physical activity (PA). However, works developed in Brazil, India and Malaysia identify a more varied and complicated picture. In this project, the basis for a globally applicable model was established to support evidence-based decision-making on transport and health.

One of the main challenges is the comparability and quality of the data. The international, multidisciplinary team of epidemiologists, transport researchers and modelers will assess what data are available and will develop approaches for mapping available data to those desired. An integrated health impact simulation model will be built for two Indian cities and the models will be extended to São Paulo and Delhi. Sensitivity analysis will be used to inform future work. Behavior change scenarios will be simulated, changing both the distance-based mode divisions and the distribution of travel distances (changes in urban form). The data will be evaluated for future modeling studies, both in-depth (Latin American and African cities) and more broadly (Indian and Latin American cities).

This project lays the groundwork for a scientifically robust model to help address one of the major determinants of population health.

Evaluation of New Alternatives to Increase Accuracy in Determining the Cause of Death: An Autopsy–Based Approach

This study, developed by the Department of Pathology of FMUSP, through a contract signed with the Bill and Melinda Gates Foundation, with the intervention of the FFM, was started at the end of 2016 and carried on in 2017.

The project is designed and validated for methods that allow the identification of the cause of the death of people where there is a lack of professionals or training for this. These methods will determine the immediate cause and the underlying cause (main disease) of death.

In the pilot phase will be applied the methods to be developed and made a thousand autopsies during a year, in the city of São Paulo. If the methodology of this initial phase presents a high reliability index, the project may have its continuity and expansion of the research areas, since the initiatives supported by the entity should be of worldwide application.

Difficulties in collecting information about the reason for death due to illness are due to several factors, including the lack of a physician to determine the cause of death or, therefore, the lack of training of the existing professional. There are also situations in which the body was examined by a physician but there was no recording and collection of samples or the information was not concentrated in a database or the system is not transparent.

VIA T HELPER 17 in Diabetes Mellitus Type 1 Autoimmune

This study, developed by LIM 18, through a contract signed between the FFM and the European Foundation for the Study of Diabetes, was initiated in 2016 and continued in 2017.

This project aims to define Single Nucleotide Polymorphisms (SNPs) related to the T helper pathway 17 that may be involved in the predisposition to autoimmune type 1 diabetes mellitus (DM1A). SNP genotyping will be in 500 patients with DM1A and 500 healthy controls. In addition, the expression of the total peripheral lymphocyte RNA genome will be determined in 20 newly initiated DM1A patients and 20 healthy controls, paired to provide data on the T helper pathway 17.

Programs and policies for obesity prevention in low, middle, and transition countries – evidence-based studies and program evaluation

This study, developed by NUPENS of the School of Public Health of USP, through a contract signed between FFM and The University of North Carolina at Chapel Hill, began in 2016 and continued in 2017.

The activities planned are as follows: **1)** Revision studies on food consumption patterns and temporal trends in household food purchases in Brazil; **2)** Revision studies on the prevalence of obesity, hypertension, diabetes and other chronic non-communicable diseases related to food in Brazil; **3)** Conduct a study on price elasticity for beverages and non-essential foods; **4)** Creation of a database with the nutritional composition of beverages and industrialized foods marketed in Brazil; **5)** Review Brazilian data sources on food advertising in the media; **6)** Develop a research plan to evaluate Brazilian regulatory policies on nutrition in the school environment; and **7)** Support Brazilian civil society groups that advocate regulatory policies to promote healthy eating.

Participation of astrocytes located on the ventrolateral surface of the bulb in ventilatory responses to hypercapnia and hypoxia

This study, developed by ICB−USP, through an agreement between FFM and The Ohio State University, at the end of 2016, with a subsidy from NIH, was carried on in 2017.

Respiratory automatism and the chemical control of respiration are inseparable processes. The paraplegic/retrotrapezoid nucleus (pFRG/RTN) is a group of glutamatergic neurons, which expresses the transcription factor PHOX2B and appears to play a relevant role in the central chemoreceptor process and in respiratory automatism. The PHOX2B transcription factor is responsible for modulating cell differentiation and survival of neurons and glia cells in the central nervous system (CNS), especially the structures located in the bridge and bulb, which are involved in autonomic and respiratory control. Therefore, the correct maturation of these neural cells is of paramount importance, since mutations in the PHOX2B gene may be involved with the Central Congenital Hypoventilation Syndrome (SHCC).

Neurons are not the only CNS cells capable of detecting carbon dioxide (CO2), suggesting a participation of astrocytes in chemoreception. There is probably an indirect pathway through which CO2 levels are detected and release transmitters to promote the activation of pFRG/RTN neurons involved in respiratory control. From these evidences, it becomes important to investigate the role of embryologically derived neural cells (neurons and astrocytes) of the transcription factor PHOX2B in respiratory control, under physiological conditions and during development. It is believed that correct expression of the PHOX2B gene during development is necessary to establish adequate functionality of the central chemoreceptor process and thus regulate CO2 levels under conditions considered physiological. The experiments elaborated in this project try to test this hypothesis and will be performed through neurophysiological and neuroanatomic techniques.

Multiplex test for evaluation of cure of Chagas disease

Infection by the protozoan *Trypanosoma cruzi* is generally controlled, but not eliminated by the host immune response. Persistent infection ultimately results in muscle tissue injury, termed Chagas' disease.

Although there are several drugs with partial efficacy to treat the infection, it is estimated that only about 1 % of infected individuals receive treatment.

The absence of reliable tests to definitively determine the efficacy of treatment is the main obstacle, both to the wider use of available medicines and to the development of more advanced therapies against Chagas' disease.

Recently, the group demonstrated that donor anti-reactivity in conventional ELISA tests was associated with the presence of the parasite detected by PCR. It can also be detected that some donors lose antibody over time, suggesting that spontaneous healing may occur.

This study, developed by LIM 46 through a contract signed between FFM and the University of Georgia, with a subsidy from NIH, was approved at the end of 2016 and continued in 2017, aims to develop a curing test that can identify individuals previously exposed to the infection and have evolved to cure, with or without therapeutic treatment.

Dynamic crime models: a new frontier of application of Mathematics to Psychology and Social Sciences

This study, developed by FMUSP's Medical Informatics Discipline, through a contract signed between FFM and the Office of Naval Research Global, began in late 2016 and was finished in 2017.

The project consisted of a mathematical model designed to study the dynamics of the criminal career, which considers the phenomenon of crime in Brazil and probably in other parts of the world as a "contagious" event.

It is understood, therefore, that the entry and maintenance of young people in the criminal career is determined by the induction of individuals who are already in the criminal career, including, mainly, but not exclusively, those who already serve their sentence in the Brazilian penitential system.

Bloomberg Initiatives for Global Road Safety: Observational studies of speed, helmet use, seat belt, child restraint equipment and steering under the influence of alcohol, in the city of São Paulo

This research is being developed by the LIM 40, through a contract signed in 2015 between FFM and the Johns Hopkins University, and was carried on in 2017.

This is an observational cross-sectional study where data from five risk factors for traffic accidents are collected in a noninteractive way with the subjects: motorcycle helmets, seatbelts, Child restraint equipment in vehicles, speeding direction, safety and alcohol use. Data collection will be done through random systematic observations that will be conducted in six to 12 selected locations in the city of São Paulo, at the edge of streets and avenues. This collection will be held twice between the years 2015 and 2016.

The data will be collected by personnel previously trained by the Johns Hopkins International School of Public Health (JH–IIRU) team and will use data collection methodology already in use and used in phase 1 of the Bloomberg's Initiative for Global Road Safety (BIGRS) 2010– 2014). All the information will be collected randomly without contact with the research subjects – always at a distance and without identification collection. It should be remembered that the data collection on the direction under the effect of alcohol will happen passively, observing the routine police commands in the city that will occur during the studied period.

Production of recombinant proteins from different expression systems

This study, developed by LIM 25, through a contract signed between Ouro Fino Saúde Animal Ltda., FMUSP and FFM, was started in 2015 and continued in 2017.

The general objective of this research project is to make possible the unprecedented recombinant production of therapeutic proteins of interest in animal health, in order to preserve the biological activity in vivo of these proteins in both laboratory animals and the target species.

Such proteins should be used to improve the productivity of animals used in livestock for food production.

This partnership seeks to unite expertise and capabilities in different areas of knowledge, aiming to make feasible the industrial scale production of the recombinant proteins of interest and the proof of their efficacy and safety in domestic animals.

Biomarkers screening and development of multiparametric test TheraCruzi

This research was initiated at the end of 2015 by LIM 46 of HCFMUSP, through a contract signed between the Institut Mérieux, Infynity Biomarkers and FFM.

A significant proportion of patients chronically infected by Trypanosoma cruzi develop the chronic form of the disease, with cardiac and/or digestive alterations. Although they discovered markers associated with the disease, none of them could be used alone as a marker of disease prognosis. In addition, there is a low degree of persistence of the parasite, which is a fundamental aspect of chronic Chagas disease, whose current parasitological tests, such as blood culture or PCR to detect T. cruzi DNA, have low sensitivity and are not practical for the patient Or the large–scale use of clinical trials.

Still, in Brazil there is a single available drug, Benzonidazole, with questionable efficacy in the treatment of patients with chronic Chagas' disease. Thus, there is an urgent need to conduct clinical trials to develop new drugs for chronic Chagas' disease. However, the lack of reliable biomarkers for the reduction of parasitism, and consequent inflammatory responses and damage, is a major obstacle to the evaluation of new drugs.

The identification of differentiation markers to evaluate the presence of levels and parasitism of Trypanosoma cruzi, resulting in immune and inflammatory modifications, could solve this problem. Therefore, the purpose of the study was to evaluate the response of individuals to T. cruzi synthetic peptides by enzyme-linked immunosorbent assay in patients before and after treatment with benzonidazole in the search for correantibody response patterns that correlate with presentations Clinics and compare the results with other biomarkers, for the formation of a composite profile of biomarkers for the prognosis and monitoring of the treatment.

These activities were finished in 2017.

Basic Project of Implementation of the Observatory of the Medical Profession and Studies of the Medical Demography

This project, developed by the Department of Preventive Medicine of FMUSP, through an agreement between FMUSP, FFM and CREMESP, was started at the end of 2015 and carried on in 2017.

The objectives of the project implementation are: **a)** to produce and disseminate studies, research and data; **b)** to deepen and update the profile, distribution, aspects of the work and the specialization of Brazilian physicians; and **c)** seek to trace the relationship between the concentration and distribution of physicians and the organization and functioning of the Brazilian health system, as well as the relationship with health inequalities in Brazil.

Verbal Autopsy in Brazil: Validation of the Instrument

Having an adequate information system on deaths and their causes is of fundamental importance, as it provides subsidies to assess the health situation of the populations and to promote the planning, monitoring and evaluation of health services. The proportion of deaths of ill-defined cause or cause ignored, among all deaths occurred, has been the most used indicator to evaluate the quality of information on causes of death.

The Mortality Information System (SIM), despite being highly consolidated, presents coverage and quality of information on unequal deaths, both among Brazilian regions and in relation to population groups stratified by socioeconomic level, with underreporting and high proportion of recorded deaths with ill-defined causes in some areas.

This project, developed by the Department of Pathology of FMUSP, through an agreement signed between the Ministry of Health and the FFM at the end of 2015, has the general objective of evaluating and validating the verbal autopsy form for adults in Brazil. The specific objectives are as follows: **a)** review the bibliography of research and studies on verbal autopsy (VA) assessments and present an executive summary of those studies; **b)** elaborate a proposal of reference document of the VA (form in Portuguese and instruction manual); **c)** carry out the validation of the verbal autopsy questionnaire for adults; **d)** compare the TARIFF methodology (automated method) with certification of the causes of death by physicians in Brazil; **e)** to verify the reliability of certification of causes of death among physicians (Death Verification System − SVO and VA certifiers); and **f)** to verify the reliability among death cause coders.

In 2017, the Ministry of Health approved a request for budget restructuring, thus enabling the start of project activities.

S. pyogenes vaccine for the prevention of rheumatic fever and cardiac rheumatic disease: a phase I/IIa clinical study

This study, developed by InCor, through a contract signed between HCFMUSP, Butantan Institute, BNDES and FFM, began in 2015 and continued in 2017.

Its main objective is to conduct a Phase I/IIa clinical trial of A vaccine produced entirely in Brazil against Streptococcus pyogenes to prevent new cases of rheumatic fever (RF) and cardiac rheumatic disease (CKD), a consequence of the oropharynx infection caused by the *S. pyogenes* bacteria, mainly in Brazil, the African continent and India, where rheumatic fever and/or its sequelae are still very important.

The Phase I/IIa clinical trial is the result of the extensive research developed by InCor over the last 20 years, with the support of several development agencies, mainly national.

In summary, the results obtained were innovative and promising and safe. The vaccine and is recognized by individuals carrying several HLA class II molecules, which makes it universal, besides being stable in different temperature and pH conditions, a very important aspect in that it concerns to the transport and stability of the vaccine (Guilherme L, et al, J. Biol Chem, 2011.

In order to obtain immune response mediated by IgA and IgG, new experiments were performed with the MPLA and WP adjuvants manufactured by the Butantan Institute. These data are very important and opened the possibility of conducting human phase I/IIa assays in a vaccine developed entirely in Brazil and with a high social and economic impact.

Pilot Project on Drug Traceability in HCFMUSP and its integration with the Drug Traceability Pilot Project of the Drug Registration Holder

With a view to increasing patient safety, HCFMUSP was chosen in 2015 to carry out a pilot project of Anvisa Resolution RDC No. 54, linked to drug traceability. The idea is to test a system that can map products from production to consumer arrival. The goal of Anvisa is to create a mapping network capable of serving the whole of Brazil, but since there are many agents involved in this process, this test at HCFMUSP will be a first step.

The pilot project is being developed by the HCFMUSP Technological Innovation Center, through a Scientific Technical Cooperation Agreement signed between HCFMUSP, FFM and Libbs Farmacêutica Ltda., and began at the end of 2015 and continued in 2017.

The proposal is to trace 13 medicines, produced by national and international industries, for ten months. After that time, a report will be prepared for the Management Committee for the Implementation of the Sistema Nacional de Controle de Medicamento, (National Drug Control System), linked to Anvisa. Thus, it would be possible to detect the difficulties and analyze the possible ways to expand the action throughout Brazil.

The Anvisa resolution, approved in December 2013 (RDC No. 54), establishes mechanisms and procedures to track all medicines circulating in the national territory. This includes a record of products from manufacturers/producing companies, wholesalers, retailers, importers of medicines, transporters and dispensing units.

It is about charting the application or location of the drugs through information recorded in a system − data on products, service providers and users would be stored. This control must be maintained at all stages of production, including dispensing and collection.

Development of an Anatomical Atlas of Computed Tomography for Application in Tomography Equipment by Electrical Impedance

The general objective of this project, developed by LIM 09 of HCFMUSP, initiated in 2014, through an agreement signed between FINEP, FFM, HCFMUSP and Timpel S/A, is the development of an Anatomical Atlas, that is, a unified database with information Anthropometric data, tomographic images and pulmonary function data of about 300 female patients and 300 male patients from a Computerized Tomography (CT) database.

This new technology will be applied in Electrical Impedance Tomographs, allowing its expanded use in pulmonary function tests (earlier and more sensitive detection of pulmonary pathologies, for example, fibrosis or rejection of transplanted lungs), in cardiovascular function tests (Non-invasive cardiac output for evaluation of athletes or patients and preoperative), as well as in ICU settings (noninvasive cardiac output estimation, estimation of pulmonary strain during mechanical ventilation, better accuracy in the detection of pathological conditions such as pneumothorax, Pneumonias and atelectasis).

This Anatomic Atlas represents an unprecedented effort to improve the images of Electrical Impedance Tomography, achieving a much better spatial resolution and accuracy than is available in current tomographs. Both ventilation analyses and pulmonary perfusion analyzes will be greatly benefited by this technological improvement.

These activities continued in 2017.

Evaluation of the Impact of Industrial Emissions on Health of the Population of the Polo Petroquímico de Capuava (Capuava Petrochemical Complex)

The implementation of the Polo Petroquímico de Capuava (Capuava Petrochemical Complex) − RECAP, in the Municipality of Mauá, attracted a large contingent of workers and encouraged the installation of an Industrial Pole, at a time when both environmental licensing and Brazilian urban planning lacked criteria and procedures that Guarantee a safe operation of the industries, with continuous monitoring and with minimum risk to the health of the population installed in its surroundings.

Today, international and other studies conducted on the ground bring together plausible evidence to consider the impact of environmental emissions of these enterprises on the health of the region's population.

The present study, initiated in 2014, originated in a Statement of Commitment of Adjustment of Environmental Conduct of the Santo André Environmental Justice Prosecutor's Office, developed by LIM 05, with the intervention of the FFM, intended in a first stage to elaborate a Map where it was possible not only to identify the magnitude of the concentration of environmental pollution, but also to obtain this behavior in terms of its spatial distribution, also making it possible to identify and locate the areas where there is potential health risk arising from the historical and current operation of the industrial activities and petrochemicals of the region, objectively establishing the affected area and the possible existence of a gradient of this health risk.

These activities were finished in 2017.

Genome of landscapes in latitudinal gradients and ecology of *Anopheles darlingi*

This study, developed by the Department of Epidemiology of the School of Public Health of USP, through a contract signed between FFM and Health Research Incorporated, was initiated in 2014 and carried on in 2017.

The primary malaria vector in the Amazon Region, *Anopheles darlingi*, has the ability to adapt quickly to micro−geographic changes resulting from new environmental conditions such as those found in agricultural settlement areas. Therefore, the presence of this mosquito represents an important threat to human health in Latin America. The proposal will examine three biological aspects of Anopheles darlingi, which have been underestimated, aiming to identify the main mechanisms responsible for the success of the vector in the transmission of the pathogen: broad plasticity or genetic specialization.

Firstly, the Hipótese de Malária de Fronteira (Border Malaria Hypothesis) − HMF − will be tested, in which settlement age predicts incidence of malaria cases, explicitly separating the effects of settlement age and forest cover.

Secondly, genomic characteristics of An. Darlingi populations exposed to: **(i)** different levels of Plasmodium in the Amazonian endemic region will be compared with the populations of southern Brazil, where malaria is rare, and **(ii)** environmental variables in several settlements Amazonian.

Third, experiments on the life history of Anopheles darlingi will be developed that will address characteristics of temperature response patterns that are directly related to vector capacity.

Incidence study of dengue in Brazil, in municipalities of high and medium endemicity Goiânia-GO and Araraquara-SP

This study, developed by IMT−USP, through a contract signed between Sanofi Aventis Farmacêutica Ltda., HCFMUSP and FFM, was initiated in 2014 and carried on in 2017.

The main objective of the project is to outline and implement epidemiological studies that will support the evaluation of future dengue vaccination strategies. The specific objectives are as follows: **a)** To describe the serological profile and immunological status of the population before a possible future vaccination strategy; **b)** To identify the proportion of asymptomatic, oligosymptomatic cases and the clinical profile of the symptomatic cases and their serological status; **c)** To estimate the rate of seroconversion in a cohort at two distinct stages of transmission; **d)** To identify the risk factors for severe dengue, according to the age group; and **e)** To provide epidemiological data needed to model the dynamics of dengue transmission in different epidemiological scenarios.

A randomized, double-blind, placebo-controlled clinical trial to evaluate the efficacy of creatine as adjuvant therapy in the treatment of bipolar depression

Bipolar disorder (TB) is a chronic mental illness that affects approximately 1 % of the adult population and is associated with a suicide rate of 10−19 %. While there are several options for treating refractory mania, treatment−resistant bipolar depression with mood stabilizers remains difficult to treat. Even with the publication of studies that support pharmacotherapies that shorten the duration and decrease the severity of depressive episodes and reduce the risk of recurrence, more than half of the patients do not respond adequately to the treatments available for bipolar depression.

Creatine plays an important role in cerebral energetic homeostasis, acting as a temporal and spatial buffer for the cytosolic and mitochondrial reserves of ATP (adenosine triphosphate). Recent studies suggest an increase in brain oxygen utilization following oral creatine supplementation.

The aim of this study, initiated in 2014 and developed by IPq, through an agreement between FFM and NARSAD, was to verify if creatine improves depressive symptoms when used in the adjuvant treatment of conventional treatment of bipolar depression.

These activities were finished in 2017.

Latin America Treatment & Innovation Network in Mental Health

Recent research suggests that the redistribution of clinical tasks in health systems and in health teams, known as task−shifting, is an effective and efficient strategy to expand access to treatment in situations where there is a lack of specialized human resources. Most of these studies focused on improving infant survival, maternal health, and HIV programs, with Peru becoming one of the leading Latin American countries in this type of experience.

Today, there are more mobile phones than landlines in most Latin American countries, covering almost their entire population.

The objectives of this study, initiated in 2014, supported by the NIH, through a contract signed with the FFM and developed by the Department of Preventive Medicine of FMUSP are:

a) to evaluate the effectiveness of an intervention, by automatic mobile messages assisted by auxiliaries in the treatment of symptoms of depression in individuals with chronic physical illnesses (diabetes and/or hypertension) attended at Family Health Strategy units in the city of São Paulo, Brazil; and

b) to evaluate the cost−effectiveness of this intervention program.

These activities continued in 2017.

Prospects for the elimination of residual malaria in the Brazilian rural Amazon: strategy of investigation of reservoirs of *Plasmodium vivax*

This study, developed by the ICB−USP, through an agreement signed between FFM and the Ministry of Health, at the end of 2013, aims to implement and evaluate a strategy to detect symptomatic and asymptomatic carriers of the parasite (potential Reservoirs of infection) in areas of residual malaria transmission, focused on the monitoring of potential transmission foci around clinical episodes (index cases) diagnosed by BA or BP of febrile cases.

The specific objectives of the study are: **a)** to classify all new episodes of malaria (index cases) detected by BA or BP and laboratory confirmed in the municipality of Acrelândia over 12 months, such as autochthonous cases, relapses, imported cases or cases introduced; **b)** to evaluate the efficacy of detection of potential malarial reservoirs around each index case, combining conventional microscopy and molecular diagnosis, comparing the results of monitoring the index domicile and its neighbors (within the potential focus of transmission) with those obtained In non-related households (outside the potential transmission focus) but belonging to the same locality; and **c)** to determine the epidemiological links between malarial infections, diagnosed by means of the genotyping of the parasites obtained during the monitoring of the potential foci of transmission.

These activities continued in 2017.

Combination of Cerebral Stimulation and Peripheral Nerve Stimulation to Increase the Beneficial Effects of Functional Electrical Stimulation on the Partical Hand after Stroke

There are no universally accepted treatments to reduce disability in patients with severe motor impairment in the chronic phase after Acidente Vascular Cerebral (Stroke) − AVC. Neuromodulation techniques, such as transcranial direct current stimulation (tDCS) and somatosensory stimulation in the form of peripheral sensory stimulation (ESP), are emerging techniques with great potential to improve motor performance or increase the effects of Motor training in stroke patients.

In this research, developed by the Department of Neurology, through a contract signed with the NIH, with the intervention of FFM, the hypothesis will be tested that tDCS and ESP will increase the effects of functional electrical stimulation (FES) and training Specific task on motor function. It is planned to collect data related to this hypothesis, investigating the following specific objectives: **1)** To compare the effects of FES in close association with isolated tDCS, isolated ESP, tDCS + ESP or ESP alone, in patients with moderate to severe weakness in one Cross

drawing. The hypothesis of this study is that either active tDCS or active ESP will increase effects of FES to a greater extent than placebo tDCS and placebo placebo, and that the combination of tDCS and ESP will have greater effects than tDCS or ESP Isolated; and **2)** to compare effects of the FES combination and motor training to the more efficient neuromodulation intervention, according to the results of Objective 1, with FES effects and motor training associated with the placebo intervention (ESP / tDCS placebo) administered three times per week. Week for six weeks to two groups of adult patients with moderate to severe weakness. The hypothesis is that neuromodulation intervention, combined with FES and motor training, will decrease the incapacity of the upper limb paretic and improve quality of life when compared to tDCS/ESP placebo combined with FES and training motor.

These activities began in 2012 and were continued in 2017.

Center for Biomarker Research on Neglected Tropical Diseases of São Paulo−Minas Gerais

This study was initiated in 2012 by LIM 46 of the HCFMUSP, through a contract signed between FFM and NIH, and was carried on in 2017.

The long-term goal is to establish a Center of Excellence for Biomarker Research on Neglected Infectious Diseases in Brazil. The initial focus will be on Chagas disease, with the aim of finding biomarkers that can be used to infer the risk of disease progression.

Two interrelated studies will be developed: Project 1 will focus on gene expression in previously well characterized samples. In Project 2, it is planned to use the Unified Health System in the State of Minas Gerais, recording and collecting blood samples from 2,000 patients with Chagas' disease. These patients will be followed up for two Essyears, with death outcomes or admission to a hospital for heart disease.

The main objective is to obtain a baseline risk score based on levels of biomarkers and electrocardiogram (ECG) findings that could identify high-risk patients in order to guide therapeutic approaches and serve as an institution for future clinical trials.

Two nuclei will be established: the Administrative Nucleus and the Database and Epidemiology Nucleus, which will support the activities of the two projects, as well as create and sustain research training programs for young Brazilian scientists.

Receiver Epidemiology and Donor Evaluation – REDS III Study – International Post

This proposal, initiated at the end of 2011 by the Departament of Infectious and Parasitic Diseases of FMUSP, through an agreement signed between FMUSP, the Blood Systems Research Institute and FFM, counts on the partnership of four large blood centers in Brazil (Pro−Sangue Foundation /Hemominas (MG) / Hemope (PE) / Hemorio (RJ)). The study aims to: **a)** establish the basis for a National Research Program on blood safety in Brazil and provides for the expansion of the three centers during the REDS−II Program for four centers during REDS−III; **b)** maintenance of the database of donors and donations; and c) continuation of specific aspects of two REDS−II projects: re- evaluation of patients who participated in the Chagas disease cohort study and continued analysis of viral characteristics and risk factors in HIV-infected blood donors.

Two new main protocols are proposed for REDS−III. The first project will focus on an extremely relevant threat to blood safety in Brazil and in the world, which is the Dengue virus (Dengue virus). The second major protocol is an observational blood receptor design, focusing on epidemiology and transfusion therapy in Sickle Cell Anemia (SCD).

The combination of ongoing activities, new protocols and training efforts will ensure that Brazil continues to evolve into a Center of Excellence in Transfusion Medicine Research in Latin America.

These activities continued in 2017.

This research, initiated in 2010 by the ICB–USP, through an agreement between FFM and the University of California, aims to: **a)** estimate the prevalence of asymptomatic infection by plasmodium and to characterize risk factors for the development of symptoms during the period of malaria infection; **b)** to estimate the prevalence and risk factors for the presence of gametocytes in symptomatic and asymptomatic infections; **c)** to estimate the risk of subsequent symptomatic infection among patients with asymptomatic parasitemia and uninfected individuals; **d)** to determine, based on parasite genotyping, whether subsequent episodes of symptomatic malaria are due to the persistence of parasitic strains, originally found in the asymptomatic carrier; and **e)** to compare the levels of genetic diversity of the parasites in symptomatic and asymptomatic infections.

The entomological component of this proposal, centered on the main vectors of malaria found in the study area, aims to: **a)** determine the diversity of vectors in this region, through molecular tools of identification and genotyping of vectors; and **b)** to evaluate the impact of the different economic activities on the population structure of the vectors.

These activities continued in 2017.

Clinical Studies

Clinical studies allow the evaluation of new drugs, new treatments, new vaccines, and a greater understanding of diseases and behavior of the population, which is reflected in benefit to patients and society.

One of the areas with the greatest growth among FFM's attributions was the management of the faculty and clinical research projects of the FM/HCFMUSP System. At FFM, the work is coordinated by Project Management, in partnership with the EPeClin (Clinical Research Office) of HCFMUSP, formerly NAPesq (Clinical Research Support Center), which was created in early 2005 and linked to the Clinical HCFMUSP, aims to support researchers, adapt procedures and advise the areas of the FM/HCFMUSP System that carry out scientific investigations involving human beings.

Under the supervision of FMUSP professors and with the support of the Centros de Pesquisa Clínica (Clinical Research Centers) − CPC − of the Institutes of HCFMUSP, Clinical Studies and Research aims to evaluate the efficacy, tolerability and safety of medications and also ensure that animal and Human beings are made according to the technical−scientific, ethical and legal parameters and under the current legislation for the species, besides ensuring the smoothness of the research funding, origin of resources, return on investment, adequacy of policy guidelines Institutional, integration with other sectoral actions, and interest and convenience for the Public Service.

Clinical research, clinical trial or clinical study are the terms used to designate a process of scientific investigation involving human beings. All human investigations are aimed at discovering or verifying the pharmacodynamic, pharmacological, clinical and/or other effects of the product(s) and/or identifying adverse reactions to the investigational product(s) to ascertain their safety and/or effectiveness.

The Clinical Research area has become increasingly complex and multidisciplinary, having as a characteristic the need for constant evolution and updating of processes, as it acts at the forefront of knowledge, technology and innovation.

It allows the evaluation of new drugs, new treatments, new vaccines, as well as a better understanding of the diseases and the behavior of the population, which is reflected in benefit to patients and society. It is considered, therefore, the main instrument to validate innovation in the health sector.

It should also be highlighted the important role of Clinical Research in the training of human resources, as well as the formative role of the scientific method in medical education and its strong link to Post-Undergraduate.

It is also important to highlight Clinical Research as a sector of financial resources generation, which enables investments in the area.

One of EPeClin's main challenges is to contribute to greater agility of internal regulatory and legal flows, thus placing the Institution in a highly competitive and leading position in the coordination of clinical research. Thus, EPeClin offers researchers strategic advice for the evaluation of opportunities, fundraising and sponsorships, feasibility studies as well as support in negotiating contracts and bioethical and regulatory issues related to Clinical Research, whether this research sponsored by the private initiative, By public development agencies or by researcher own initiative studies.

In 2017, the architectural projects were approved for the renovation of the building where the Medical Attendance Service to the Server (SAMS) previously operated, next to the HCFMUSP Administration Building. The space will be dedicated to the expansion of the clinical research infrastructure of the ICHC and will also serve the IOT and IMREA.

Currently, the ICHC is responsible for 53 % of the clinical research developed in the HCFMUSP Complex. On its fourth floor, there are six offices dedicated to the 40 protocols that are being executed simultaneously. With the new space, 14 more offices will be added, in addition to multiuser laboratories, a dedicated pharmacy with four divisions depending on the type of medication to be dispensed and stored, new collection boxes, two meeting rooms and rooms for coordination and monitoring, gynecological office and space storage for kits and biological material, as well as waiting rooms and place for volunteers' snacks.

The HCFMUSP accounts for 74 % of the clinical research developed in the FM/HCFMUSP System. The remainder is divided between FMUSP itself, which conducts research with cadavers and

biological samples, but not with volunteers; ICESP and InCor, are considered individually. The area of Cardiology is the one which develops more studies, followed by Orthopedics, Oncology and Radiology, Paediatrics and Gastroenterology.

AGNALDO DIAS/NCI HCFMUSP

The former SAMSS building next to the HCFMUSP Administration Building will be renovated to host offices for clinical research

In integrated actions with FFM, especially with the General Management of Projects and Research (GGPP−FFM) and Legal Consultancy (CJ− FFM), EPeClin has an active participation by issuing technical opinions and monitoring the flow, processing and approval of contracts and stock exchanges. Clinical research, in compliance with the requirements and institutional norms that regulate this theme. Among the actions implemented is the application of institutional overhead in the contracts of Clinical Research, which will allow the funding of funds that will be invested in the sustainability of the Clinical Research infrastructure of the Institution.

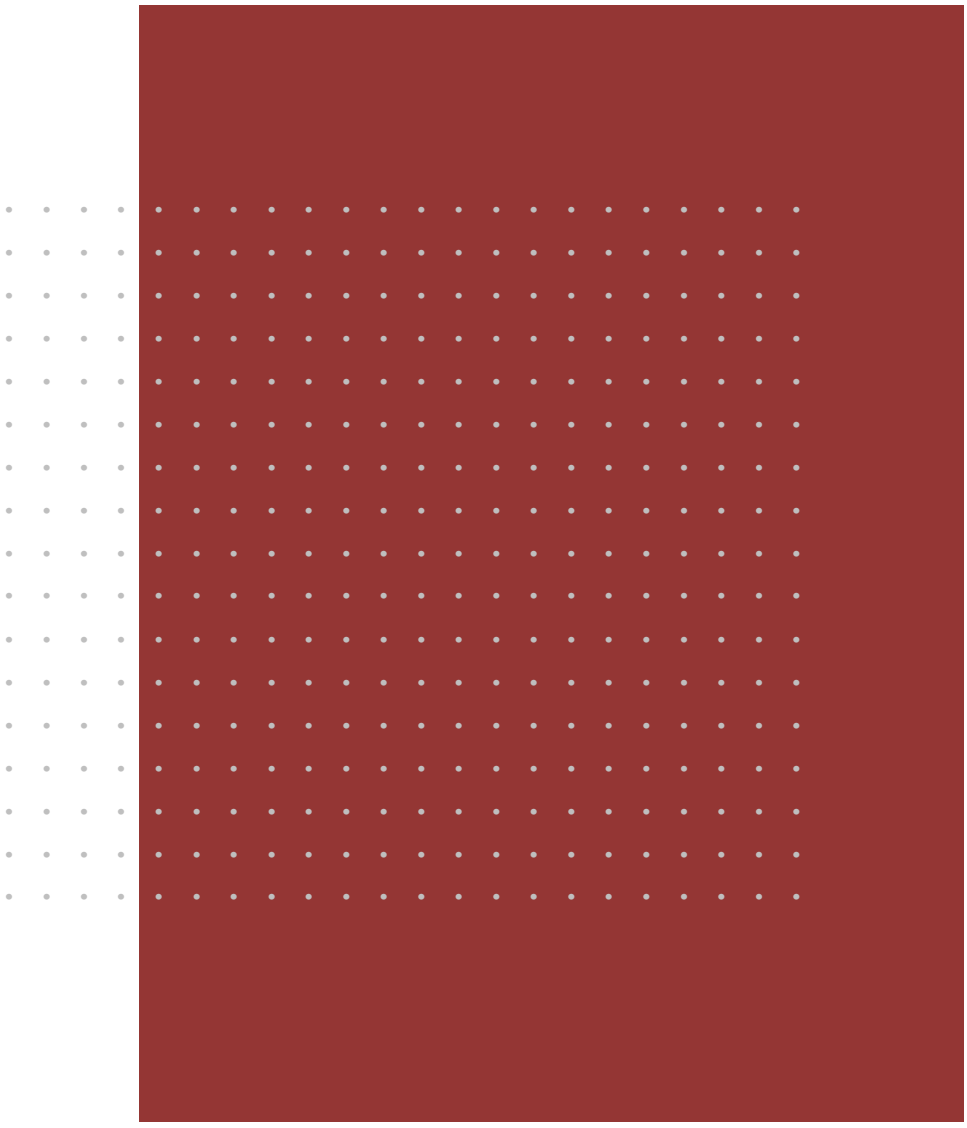
In 2017, FFM managed approximately **371 clinical studies** (number in 12/31/2017), approved by the Ethics Committee of HCFMUSP (CAPPesq) and coordinated by researchers from the FM/HCFMUSP System.

The centralization of the development of research projects takes place through the CPCs. In the FM/HCFMUSP System, CPCs are installed in the ICHC, ICr, Ipq, InRad, IOT, InCor and ICESP, intended to provide medical and hospital assistance to research volunteers; ensure that Good Clinical Practices are observed during the conduct of research projects; to guide the research volunteers and to clarify any and all doubts mentioned by them; guarantee all the resources needed by researchers; support the coordinators in conducting research projects; monitor the activities and provide necessary information to the monitors of the different research projects; and ensure that audits of research projects are conducted in accordance with pre-established procedures.

In addition, institutionally, the main objectives of the CPCs are: reduction of expenses; Optimization of equipment use; Installation of physical area suitable for conducting studies related to various specialties; Centralization of the development of research projects; Ensure better service to the research volunteer; Improve the quality of teaching and the service provided to the community; Train teams to carry out rigorous studies, with quality and reliability within ethical and scientific standards, often with strict deadlines; and provide continuing education.

The CPCs have the archiving of copies of all research protocols, completed admission form, appointment letter signed by the principal investigator, as well as the following copies: approval by CAPPesq, CONEP and ANVISA (CE); and contract and budget, these being the minimum requirements necessary for the protocol to enter the Center.

Health Policy Projects



Health Policy Projects

FFM also supports the implementation of several Health Policy projects, including training of public health professionals, development of evaluation tools, among others.

Main Health Policy Projects

Economic evaluation of the introduction of the dengue vaccine in the National Immunization Program in Brazil

This project, to be developed by the Department of Infectious and Parasitic Diseases of FMUSP, was made possible through a Letter of Agreement signed between PAHO and FFM, at the end of 2017.

The development of dengue vaccines is considered a priority in public health. Numerous publications point out to the relevance and interest of rapidly delivering dengue vaccines. The major challenges in the development of dengue vaccines include the existence of four serotypes and the possibility of vaccination to induce ADE, resulting in an increase on the severity of cases, especially if the vaccine does not confer lasting protection against the four serotypes of the virus or, in case of need for multiple doses in people exposed to the disease before completing the vaccination schedule. Dengue vaccines should induce long-term protection against all four serotypes, have a good safety profile, and be cost-effective.

The objectives of this research, therefore, are: **a)** to estimate the burden of the disease and the costs associated with the dengue in the country, by age group; **b)** to estimate the costs associated with the introduction of the dengue vaccine in the routine immunization schedule of the NIP; **c)** to evaluate the epidemiological impact and the cost-effectiveness of the introduction of the dengue vaccine in the NIP, in the perspectives of society and the Unified Health care System (SUS) in comparison to the current strategy (without vaccination); and **d)** to estimate the budgetary impact of the introduction of the dengue vaccine in the NIP from a SUS perspective, compared to the current reference scenario (set of preventive and therapeutic options currently available for the treatment of dengue without vaccination).

Research, Development and Innovation Project for the Department of Pharmaceutical Assistance and Strategic Inputs of the Ministry of Health

The objective of this project, to be developed by the Nucleus of Innovation and Technology (NIT) of HCFMUSP, through an agreement signed between the Ministry of Health and FFM, at the end of 2017, is to support the Department of Pharmaceutical Assistance and Strategic Inputs (DAF), the Ministry of Health (MS), in the implementation of a laboratory for the promotion and development of projects in the area of automation and innovation, with the objective of researching, developing, promoting, testing and validating technologies and their respective applications.

Encouraging the association of the Ministry with diverse organizations around initiatives that have appropriate scale to develop knowledge and to transform ideas, successful laboratory experiments and quality of mathematical models into practical results that improve the performance of the actions of the DAF in its acting field.

Thermolabile medication logistics control center

This project, to be developed by HCFMUSP's Nucleus of Innovation and Technology (NIT), through an agreement signed between the Ministry of Health and FFM, at the end of 2017, is justified by the need of the Ministry of Health to define processes and technologies capable of structuring a logistics control center for thermolabile drugs based on the research and development of technical specifications that follow open standards and can be operated and integrated by any Ministry supplier, whether now or in the future.

The center shall have technological processes and concepts that allow the temperature control of the loads and the knowledge of the interferences suffered during its handling and storage, from the manufacturing in Brazil or abroad until the moment of manipulation for administration.

Mapping of Interprofessional Education Initiatives in Brazil and Updating of Teaching Development for the adoption of interprofessionalism in health education

This project was initiated in 2017 by the Nursing School of USP, through a Letter of Agreement signed between FFM and PAHO.

Based on studies and experiences in several countries, Interprofessional Education (EIP) is an important instrument for changing the focus of professional practices, surpassing models focused on their specificities, as a way to enable shared learning processes, capable of stimulating the improvement of skills for collaborative work.

The general objective of this initiative is to strengthen Interprofessional Health Education as a theoretical and methodological framework for reorienting the training processes of health care professionals in Brazil. The specific objectives are as follows: **a)** to map the initiatives of Interprofessional Education existing in Brazil; **b)** to prepare a proposal for an updating course for teachers and managers of Brazilian educational institutions for the purpose of qualification on Interprofessional Education; and **c)** to develop an updating course for teachers and managers of Brazilian educational institutions for the adoption of interprofessionality in health care training.

Institutional arrangements for mediation of different health regulatory bodies in Brazil: legal-administrative itinerary for the creation of new health professions and improvement of the Health Work Regulation Chamber/MS

This project, to be developed by the Department of Preventive Medicine of FMUSP, was made possible through a Letter of Agreement signed at the end of 2017 between FFM and PAHO.

The legal regulation of health care professions in Brazil is composed of a broad and fragmented normative set, based on the Federal Constitution of 1988. However, many laws that guide the practice of health care professions and organize their professional councils have its creation and regulation before 1988 and consequently precede the creation of SUS.

The general objectives of this project are:

a) to identify the institutional paths that allow the creation of the new health care professions of higher education in Brazil, from its origin to its consolidation in the national regulatory scenario;

b) to reformulate, together with strategic agents of the Ministry of Health and regulatory bodies, a Preliminary Ordinance project reformulating the Health Work Regulation Chamber (CRTS), to follow the CRTS regular meetings in order to understand the main issues under discussion and their debate and resolution, and to evaluate existing legal and administrative mechanisms for harmonizing the regulation of these subjects;

c) to identify and understand the legal conflicts involving regulation of health care professions in Brazil, through jurisprudential research in courts of all regions of the country;

d) to consolidate and make available the data produced in the project in a digital portal that will serve as an easy access tool to the different agents responsible for decision-making in the health care professions' regulation field in Brazil; and

e) to contribute, through comparative studies of the regulatory model of South Africa, Australia and India, with thoughts on the possible regulatory paths for Brazil that could serve as support for the discussions in the CRTS.

Regulatory Models and International Transit of Health Care Professionals: Regulation of Training and Professional Practice in MERCOSUL

This project, to be developed by the Department of Preventive Medicine of FMUSP, was made possible through a Letter of Agreement signed at the end of 2017 between FFM and PAHO.

The Common Market of the South (MERCOSUL) is a regional integration initiative initially developed by Argentina, Brazil, Paraguay and Uruguay, which later included Venezuela and Bolivia, and is still in the process of accession. It was created in 1991, through the Treaty of Assumption, with the objective of promoting a common space for trade and investment "through the competitive integration of national economies into the international market".

The general objectives of this project are: **a)** to promote, through data and information, more access of the Mercosul's population to quality health care services, with the promotion of equity between the countries; **b)** to promote, through consolidation of data and proposals for regulatory improvement in MERCOSUL, the democratization of regulatory models and regional integration; **c)** to provide information and tools for managers and users of services in order to understand in an easy and accessible way how the regulation of Health Care Professions in Mercosul is carried out, what is the current regulation and what is the field development Agenda; **d)** to contribute to the development of MERCOSUL's SGT 11 through the organization of data and information, as well as through broad and critical analyses on the regulation of health care professions in the countries of the Block; **e)** to assist the agents involved to establish and implement a Health Care Professions HR Agenda in Mercosul, identifying, from the Project's results, the main topics to be included in the agenda for the regulation of health care professions in Mercosul; and **f)** to contribute, by means of comparative studies of the European Union's regulatory model with thoughts on the possible regulatory paths for the Block and the countries of the Block.

Structuring of the Surveillance and Monitoring System for Health Products

This project was initiated in 2017, by the Nucleus of Innovation and Technology (NIT) of HCFMUSP, through a Letter of Agreement signed between UNDP, HCFMUSP and FFM.

The general objective of the initiative is to develop standards, prototypes, simulations, tests, innovations and propose normatives to support SNCM's deployment, acquisition and interoperability processes, as well as publish the project results. The specific objectives are as follows: **a)** to understand the demands to be achieved, as well as the technological, procedural and legal environment of ANVISA, in relation to the National Drug Control System; **b)** to propose innovations and open standards that are interoperable and independent of exclusive supplier to meet the concept of a National Drug Control System with a centralized database; **c)** to propose rules and operational and management norms for the National Drug Control System; **d)** to support ANVISA in the activities of interlocution with the regulated market, through Public Hearings and Workshops; **e)** to carry out case studies in pilot format, simulations and prototypes; **f)** to support the elaboration of the implementation plan and massification of the National Drug Control System; and **g)** to prepare, together with ANVISA, material for publication of the project's results.

1st National Survey on the Use of Drugs and Associated Vulnerabilities of the Brazilian Prison Population and Adolescents and Young People in Restriction and Deprivation of Liberty in the National Socio-Educational System

The general objective of this study is to identify the incidence and prevalence of alcohol, tobacco and other drug use and its related consequences, as well as consumption patterns (quantity and frequency) and associated vulnerabilities of the Brazilian prison population and those of adolescents and young people serving socio-educational sentences, with restriction or deprivation of liberty.

The present study is cross-sectional, with national representation of the prison population in provisional, semi-open and closed prison systems, and of adolescents and youth of the socio-educational system in temporary hospitalization, semi-liberty and hospitalization

This project, to be developed by GREA, was made possible through an agreement signed, at the end of 2017, between FFM and Senad.

Attendance at the HCFMUSP Emergency Care Center in Reconstructive Microsurgery and Hand Surgery (CEMIM)

The creation of CIMIM of the IOT of HCFMUSP was due to the great increase in the number of patients with high complexity traumas. The phenomenon of motorcycle accidents, urban violence, chaotic traffic and the increase of speed contributed to this situation.

Since the 1980s, numerous publications have demonstrated scientific evidence of the importance of treatment in the acute phase of trauma. Adequate primary treatment promotes better outcomes, decreases complication rate, incidence of infection, hospitalization period and cost of health, and reduces trauma−related mortality and amputation rates.

Through an agreement signed in 2014 between HCFMUSP, SES-SP and FFM, highly trained and trained professionals performed **1,243 surgeries** in 2017, among them reimplants, revascularizations and flaps. Aiming at the continuity of these actions, a new Agreement was signed in 2017 with effectiveness until 2019.

Air transport of the organ capture team for liver and pancreas transplants

Through an agreement signed in 2014 between HCFMUSP, SES-SP and FFM, financial resources were made available to cover expenses for the private air transportation of teams from the Division of Liver Transplants, Pancreas and Of Organs of the Digestive System when organs were removed for transplants outside the capital of São Paulo, benefiting HCFMUSP patients on waiting lists for organ transplants of the digestive tract.

The goals of this initiative are to increase the number of abstractions and transplants and reduce the average waiting time of the organ, guaranteeing the quality of cold ischemia conditions recommended for transportation.

These activities, coordinated by the HCFMUSP Division of Liver Transplants and Organs of the Digestive System, continued in 2017.

Intestinal and Multivisceral Transplantation Program

The Falência Intestinal (Intestinal Failure) − FI − is a condition where the gastro−intestinal tract is unable to maintain adequate nutrition, hydro−electrolyte balance, growth and development. In complicated and pediatric patients, mortality reaches more than 60 % per year. For these reasons, bowel transplantation has been indicated to treat patients with irreversible IF, either alone or as a multivisceral transplant, in which the intestine is transplanted with other organs (liver, stomach, duodenum and pancreas) to treat multiple organ failure within the digestive tract.

It is estimated that 200 people per year have an indication for these transplants in our country. However, there is no active program of these transplants in Brazil, which limits the treatment of these patients.

This program, to be developed by the FMUSP Liver Transplant and Surgery Discipline and funded by the Ministry of Health, through an agreement signed with the FFM in 2011, plans to perform a transplant/month and Initial obstacles, and it is expected to reach 36 transplants annually in the next three to five years.

These activities began in mid-2016, as they awaited the approval of a request for re-allocation of items from the project budget, and were carried on in 2017.

Specialization Course in Health Education for Teachers of the Medicine Course of the The State University of Amazonas

This project, started at the end of 2015, by the Discipline of Medical Clinic of FMUSP, through an Agreement signed between the UEA, FMUSP and FFM, had the general objective of providing support to the undergraduate course in Medicine of the UEA from a Model of educational practice based on local reality, aimed at strengthening the local health system and the qualification of health care offered to the population of the host city (and even others located in the metropolitan region), through the Qualified faculty in the aspects of assistance, management and teaching.

The proposal for medical training in the 21st century is to transform content−centric education into a content−integration education that respects the student's previous knowledge, stimulates their autonomy in the search for new knowledge and develops in the student the awareness of their responsibility as a transformer of reality. Such a paradigm shift fundamentally depends on the transformation of the educator; Therefore, change in training begins in teacher development.

These activities were finished in 2017.

Support Project for the Extension Nucleus in Tropical Medicine of the University of São Paulo in Santarém-PA

This project, initiated at the end of 2015, by the Department of Infectious and Parasitic Diseases of FMUSP, through the Charter Agreement signed between PAHO and FFM, had the following specific objectives: **a)** Provide network professionals support in infectious and parasitic diseases for health care, undergraduate students in the health area, resident physicians, physicians of the Mais Médicos program and participants in the medical supply programs of the Santarém region; **b)** Maintenance of the assistance activities in infectious diseases under the SUS already performed in the municipality of Santarém by the Nucleus of Support to Culture and Extension University, called Núcleo de Extensão em Medicina Tropical (Nucleus Extension in Tropical Medicine) − NACE−NUMETROP; **c)** Offer of specialization / postgraduate courses for health professionals in Santarém; **d)** Maintaining discussion of clinical cases at a distance using telemedicine; **e)** Offer field of internship with supervision in infectious diseases for residents and undergraduate students of Institutions of other locations; **f)** Elaboration and execution of research projects of practical relevance to the improvement of health indicators of the region; and **g)** Support and training in the elaboration/implementation of Family and Community General Medicine Residency Programs, including Rural Medicine modality in the region and in areas that have Basic Fluvial Health Units and Family Health teams for the riverine populations.

The creation of NACE−NUMETROP and partnerships with local institutions, coupled with the recent policies of the Ministry of Health to expand medical and multiprofessional residency training and the provision and retention of medical professionals in remote areas, have given a new medical work and reorganization of local network services at all levels of complexity. Taking advantage of this new moment to strengthen this institutional partnership is the main motivator of this agreement, seeking to contribute with the new challenges that are presented to the local SUS with this new configuration.

These activities were finished in 2017.

Personnel dimensioning and characterization of the competencies of health professionals from basic care to collaborative practice

This project, initiated in 2015, by the Nursing School of USP, through the Charter Agreement signed between PAHO and FFM, had the general objective of dimensioning the need for workers and characterizing their duties and competences, considering the different professions (AB), with a view to their internal articulation in the units and in the network of health care.

In the process of building SUS, health workers are recognized as a critical component for the implementation of health policies and quality of health care, which leads to recognition of the link between work and education and, in particular, between work management and Education of health professionals, including planning and regulation of work and professions.

This project sought to respond to the need for adequate methodologies for personnel sizing, as well as to characterize the skills of the professionals of the teams that work in the AB, highlighting the perspective of practices and interprofessional education, contributing with subsidies for new approaches to labor regulation and professions.

These activities were finished in 2017.

Analysis for Improvement of the Surveillance System of Risk Factors and Protection for Chronic Diseases by Inquiry

In 2006, the Ministry of Health implemented the VIGITEL System − Vigilância de Fatores de Risco e Proteção para Doenças Crônicas por Inquérito Telefônico (Surveillance of Risk Factors and Protection for Chronic Diseases by Telephone Inquiry). The implementation of this system has been carried out in partnership with NUPENS/USP. The agreement between NUPENS/USP and the Health Surveillance Secretariat of the Ministry of Health (SVS/MS) has existed since 2006 and was essential for the design, operation and improvement of VIGITEL. This partnership has been essential for the planning of prevention, promotion and health care actions, being useful to guide the implementation of national public health policies.

This project, developed by the Faculty of Public Health of USP, through an agreement signed between the Ministry of Health and FFM, at the end of 2015, aims to support the Ministry of Health in the operation and improvement of the System VIGITEL regarding data collected in 2013 and 2014. Its beginning, however, occurred only at the end of 2016, due to the delay in the release of funds by the Ministry of Health, and was continued in 2017.

The specific objectives are: **a)** annual review of the system questionnaire and the main groups of indicators; **b)** annual update of the weighting factors, necessary to estimate the system indicators, for each of the 27 cities and for all of them; and **c)** preparation of annual reports of the system.

Design and Evaluation of Permanent Education Methodologies for the Implementation of the Food Guide for the Brazilian Population in the Field of Basic Health Care

Health promotion strategies in SUS focus on the determining aspects of the health−disease process in the country. Ensuring the effectiveness of health interventions presupposes that they focus on the living conditions of individuals and communities, favoring the adoption of healthy choices. Thus, the reform of basic health care in the country, materialized in the Family Health Strategy, should prioritize the integrality of the actions of the health system.

Knowing the role of food as a risk factor or protection for several diseases that configure the current epidemiological panorama, the insertion of food and nutrition actions in basic health care becomes essential for the health promotion of individuals and collectivities.

This project, developed by the Faculty of Public Health of USP, through an agreement signed between the Ministry of Health and FFM, at the end of 2015, began at the end of 2016, due to the

delay in the release of by the Ministry of Health, and continued in 2017.

The objective is to support the Ministry of Health in the implementation of the Food Guide for the Brazilian Population as a tool for qualifying actions to promote adequate and healthy food, within the scope of basic care. To this end, a proposal for an educational intervention in health based on the Food Guide for the Brazilian Population will be developed, tested and evaluated, aimed at health professionals who are part of the Family Health Support Unit.

Tutoring Activity for the State of Tocantins

The policy established by the Federal Government, through the Ministry of Health, National Transplantation System and Strategic Committee for the Development of New Centers for Capture and Transplantation, defined that all the Federation Units should develop, autonomously, procedures for the capture of multiple organs/tissues and cornea and kidney transplantation in the medium/long term. To that end, it issued Portaria 2,172, dated September 27, 2012, creating the Tutoring Activity, with the objective of developing the System of donation and transplantation in Brazilian states that require technological cooperation for its improvement or implantation, as well as covering the gaps.

The objective of this project, developed by the Liver Transplantation Service of HCFMUSP, through an agreement signed between the Ministry of Health and FFM, at the end of 2013, is to assist the implementation of the donation service and organ transplants In the State of **Tocantins**, promoting the improvement of the services already authorized and qualifying the local health professionals, thus providing the development of the services of **capture of multiple organs** and the **accomplishment of cornea and kidney transplants**.

These activities continued in 2017.

Tutoring Activity for the State of Roraima

The policy established by the Federal Government, through the Ministry of Health, National Transplantation System and Strategic Committee for the Development of New Centers for Capture and Transplantation, defined that all the Federation Units should develop, autonomously, procedures for the capture of multiple organs/tissues and cornea and kidney transplantation in the medium/long term. To that end, it issued Portaria 2.172, dated September 27, 2012, creating the Tutoring Activity, with the objective of developing the System of donation and transplantation in Brazilian states that require technological cooperation for its improvement or implantation, as well as covering the gaps.

The objective of this project, developed by the Liver Transplantation Service of HCFMUSP, through an agreement signed between the Ministry of Health and FFM, at the end of 2013, is to assist the implementation of the donation service and organ transplants In the State of **Roraima**, promoting the improvement of the services already authorized and qualifying the local health professionals, thus providing the development of the services of **capture of multiple organs** and the **accomplishment of kidney transplants**.

These activities continued in 2017.

Tutoring Activity for the State of Goiás

In order to develop the System of donation and transplantation in Brazilian states, which require technological cooperation for its improvement or implementation, the Ministry of Health published Portaria 2,172, dated September 27, 2012, creating the Tutoring Activity.

Considering the high investment in Outpatient Treatments (PDT) for transplant procedures, and even the high social cost imposed on patients who need treatment outside their home, the state of Goiás opted to request the Donation Tutoring activity and Transplants, under

the National Transplantation System by HCFMUSP, in order to initiate the liver transplantation program in the state of Goiás.

The objective of this project, developed by the Liver Transplantation Service of HCFMUSP, through an agreement signed between the Ministry of Health and FFM, at the end of 2013, is to send trainees from the state of **Goiás** to the Transplant Service of Liver of the HCFMUSP, which will allow, after a year, the accomplishment, with autonomy, of the **procedure of liver transplantation**.

These activities continued in 2017.

Proposal for the creation of an Integrated Center for Research and Teaching in Organ Transplants – CIPETRO

With the objective of developing in Brazil a critical mass of technological knowledge capable of allowing national transplant centers access to the benefits of regenerative medicine, especially those aimed at increasing the number of organs and reducing rejection, this project proposes the Creation of an Integrated Organ Transplant Research Center (CIPETRO), focusing mainly on the development of new technology related to regenerative medicine.

The specific objectives of this project, coordinated by the Discipline of Transplantation and Liver Surgery of FMUSP, through an agreement signed between the Ministry of Health and FFM, at the end of 2012, are the following:

a) Support for updating and adapting a university center for kidney, liver, lung and multivisceral transplantation with clinical and experimental sectors (CIPETRO), to become the national reference center of the National Network of Regenerative Medicine and Transplantation (RENART); and

b) Training of university centers through Post-graduate education to reproduce and sediment, in several regions of the country, the technology related to the research lines of the project. In doing so, it is intended that, after this period, several national transplant centers will be able to assimilate and put into practice the anticipated progress as a RENART.

These activities continued in 2017.

Integrated Center for Research and Teaching in Organ Transplants – CIPETRO

This project, developed by the FMUSP Liver Transplantation and Surgery Discipline, through an agreement signed between HCFMUSP, SES-SP and FFM, in 2013, has the objective of costing expenses for:

a) Support for updating and adapting a university center for kidney, liver, lung and multivisceral transplantation, with clinical and experimental sectors (CIPETRO), to become the national reference center of the National Network of Regenerative Medicine and Transplantation (RENART); and

b) Training of university centers, through post-graduate education, to reproduce and sediment, in several regions of the country, the technology related to the research lines of the project. It is intended that, after this period, several national transplant centers will be able to assimilate and put into practice the anticipated progress, forming a RENART.

The final product of the agreement will be the development, in Brazil, of a critical mass of technological knowledge capable of allowing national transplant centers access to the benefits of regenerative medicine, especially those aimed at increasing the number of organs (redirecting organs) and reduced rejection (production of modified organs). The use of borderline organs, now neglected (20 to 40 % of the patients), and the reduction of immunosuppression will considerably reduce the costs of transplants for the SUS.

These activities continued in 2017.

ARENA Project (Donation of Organs and Tissues for Transplants)

The high rate of family denial in the transplantation centers of the least developed countries of the country is one of the aggravating factors for our low rate of organ and tissue transplantation.

In the first semester of 2013 (Brazilian Transplant Registry – RBT), the index remained high especially in the North, Northeast and Central West regions, reaching 96 % in Sergipe, 89% in Maranhão, 75 % in Mato Grosso and 72 % In Acre.

The general index of family refusal in Brazil is 45%, well above the acceptable level, which is 30%. It is believed that the population's lack of knowledge about the concept of brain death is one of the factors responsible for the high negative rate in these regions.

In addition, the lack of preparation of the local teams at the time of the family interview also contributes to reduce the level of agreement. Thus, the project includes actions both for the awareness of the population and for the better preparation of the interviewing teams.

The Arena Project, developed by OPO – Organ Procurement Organization of the HCFMUSP, through an agreement signed between the Ministry of Health and FFM, at the end of 2013, is inspired by other itinerant campaigns in the area of health, Like carts and communal work, but unpublished in the area of the transplants.

Unlike the first ones, which normally provide diagnostic tests and even treatment (such as "cataract exercises"), this campaign only specifically aims to raise public awareness of the importance of organ donation by providing information that decide on the act of giving and eventually reduce the high rates of family refusal observed so far.

The project includes 10 centers for procurement and transplantation under development, which already receive training actions (courses and internships) in organ and tissue procurement for transplantation (Strategic Committee and SNT). They're located in the states of: Acre, Amazonas, Goiás, Maranhão, Mato Grosso do Sul, Pará, Paraíba, Piauí, Rio Grande do Norte and Rio de Janeiro.

Development and validation of methodology for the evaluation of SUS services at secondary and tertiary levels that provide outpatient referral assistance to Tuberculosis

The good quality of referral services is an important component of tuberculosis control programs around the world. In Brazil, these services work under the normative orientation of the National Tuberculosis Control Program (PNCT). They have, however, institutional characteristics, heterogeneous structure and process, since they are part of the SUS decentralized organization. Several NTP initiatives have disseminated guidelines for service organization and conducted local monitoring; however, does not yet have a valid methodology that allows the evaluation and homogeneous monitoring of the quality of all services.

This project, developed by the Department of Preventive Medicine of FMUSP, through an agreement signed between the Ministry of Health and FFM, at the end of 2013, was carried on in 2017. It aims to develop and validate quality indicators of the organizational dimension of care. It is based on the ethical-normative assumption that, irrespective of local institutional characteristics, all services must have resource availability, organization of the assistance process and technical management of the work, in order to allow a desirable quality care. The indicators will comprise an electronic questionnaire – QualiTB – which, as answered by local service teams, will produce quality measures comparable and usable by all levels of NTP management.

Epidemiological Surveillance Service at Hospital Scope

The hospital epidemiological surveillance service of the HCFMUSP was accredited as Hospital Nucleus of Epidemiological Surveillance level III in 2005. The maintenance of its objectives in 2017 was guaranteed by means of an Agreement signed between HCFMUSP, SES-SP and FFM.

Its main objectives can be listed as follows:

a) to improve the Epidemiological Surveillance System for Compulsory Notification Diseases, attended at HCFMUSP with a focus on detention, investigation of complaints and notification;

b) improve the dissemination and dissemination of information in Epidemiological Surveillance produced at HCFMUSP;

c) to evaluate and monitor the Epidemiological Surveillance System at HCFMUSP;

d) to promote continuous training for professionals of HCFMUSP services;

e) provide field of probation in surveillance; and

f) to develop research aimed at the improvement of the Epidemiological Surveillance System.

Implementation of the State Network of High Cost Medication Dispensing Centers – CEDMAC

The Coordinating Center of the State Network of Dispensation of High Cost Medication – CEDMAC is a partnership of SES-SP for dispensing immunobiological medications in Rheumatology.

This model has the advantage of using the established university infrastructure for assistance; Attendance of administrative processes; Reduction of costs, through sharing and adjustments of doses; and Training of efficacy, safety and pharmacoeconomics database (standard electronic medical records).

The work of the CEDMAC of HCFMUSP covers two main aspects:

1) care for the patient with rheumatic disease requiring special medications; and

2) coordination of the CEDMAC Network. The first one encompasses the functions of evaluation and orientation of the patient, the drug infusion, the pharmacovigilance actions, besides the care and evaluation of the patients coming from administrative processes of SES-SP.

In 2017, an average of 983 routine monthly attendances (11,796/year) and 48 monthly attendances of administrative processes and zoledronic acid applications (576/year) were performed, totaling around **12,372 consultations**.

In order to continue these actions, initiated in 2009 by the Rheumatology Department of FMUSP, an Agreement was signed in 2017 between HCFMUSP, SES-SP, and FFM.

Operationalization of the management and execution of laboratory services actions, to respond to new challenges, in line with the needs of the population and the SUS goals

The Instituto Adolfo Lutz (IAL) works in the promotion of health in the state of São Paulo. As a Central Laboratory of Public Health, accredited by the Ministry of Health, together with its twelve Regional Laboratories, based in the state strategic municipalities, leads the actions of sanitary, epidemiological and environmental surveillance. It also works on the frontier of knowledge, developing multidisciplinary scientific projects with international collaboration in the areas of Biomedical, Bromatological and Chemical Sciences.

Its main objectives can be summarized as follows: **1–** To contribute decisively in the planning of the Epidemiological, Sanitary and Environmental Surveillance actions for the prevention, control and elimination of diseases and diseases of interest in Public Health; **2)** To carry out tests of high complexity for Surveillance; **3)** To perform scientific research and technological innovation of interest in Public Health; and **4)** To form specialized human resources for laboratories of interest to Public Health.

Through an agreement signed in mid-2012 between FFM and IAL, the FFM carries out the operationalization of the management and execution of laboratory services actions, in order to respond to new challenges, in line with the needs of the population and objectives of SUS.

These activities were finished in 2017.

Proposal of the Strategic Committee for the Development of New Transplantation

One of the problems that deserves the greatest attention in public health care in Brazil is the difference of regional quality between the littoral states and the others. Historically easy to understand, this difference becomes increasingly unacceptable in view of the recent socioeconomic development of the interior states. In this sense, highly complex actions acquire special attention, among them organ transplantation.

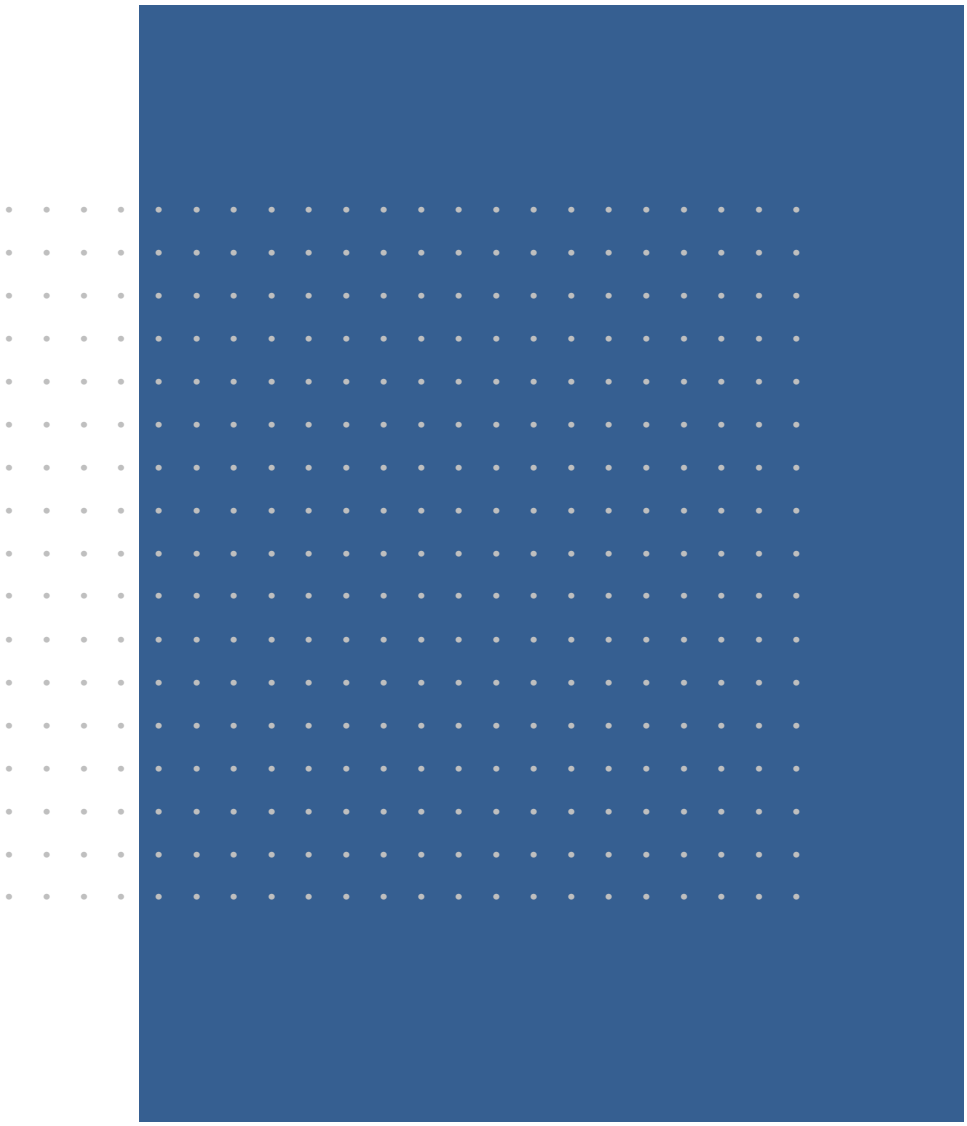
In 16 states, with about 60 million inhabitants, no transplants are performed or only kidney transplants occur sporadically and with a living donor. Thus, a space is defined to investigate the most appropriate method to develop centers capable of initiating the practice of this surgical act, which, in turn, implies the development of a series of related specialties.

This proposal, financed through an agreement between the Ministry of Health and FFM, at the end of 2011, is based on: a) the evaluation of a method of qualification; and b) the qualification of the poles in multicenter organ transplantation.

The objectives depend on the interaction of several specialties, demonstrating the opportunity to qualify, at the same time, all the inherent variables of the process, in the Brazilian states that, due to their geographic location, will be constituted in regional poles and, in those that have been better utilized, in courses and previous stages. Thus, the AM, MS, PA, PB and RN states, by their location, and the States of CA, AL, GO, MA, MT, PI and SE, were included for the qualification already obtained in abstraction Tristes, Diagnosis of Brain Death and Eye Enucleation).

These activities continued in 2017.

Institutional Projects



INSTITUTIONAL PROJECTS

FFM also supports the development of institutional projects, mainly aimed at improving the physical and technological infrastructure of the FM/HCFMUSP System installations.

Main Institutional Projects

In addition to the projects for equipment acquisition and technological updating listed in the Assistance Projects for Disabled Persons (page 62) and Oncology Patients (page 66), FFM participated in several other initiatives, among which the following projects stand out.

Infra–LIMs 2015 – Expansion of the equipment park of the PREMiUM Multiuser Network of HCFMUSP

The HCFMUSP Academic System and FMUSP has the PREMiUM Network – Network Program of Multiuser Equipment of the HCFMUSP System and FMUSP (www.premium.fm.usp.br) (page 115). The objective of this project is to expand and update this Network with the introduction of technologies essential for the development of new lines of research in pioneering technology.

The PREMiUM Network now has 26 nuclei and provides conditions for all the System researchers, and from outside, to have access to the most modern technologies, besides optimizing the usage of financial and human resources.

At the end of 2017, an agreement was signed between FINEP, HCFMUSP and FFM for the development of the following subprojects, aiming to explore the competence niches of the FM/HCFMUSP System:

SP 1 = Creation of 3D printing nucleus of nano, micro and macrostructures for application in regenerative medicine, anatomical models and others;

SP 2 = Creation of the Multiuser Nucleus of Cardiac Optical Coherence Tomography and expansion of the Image Platform in the Autopsy Room;

SP 4 = Expansion of the Multiuser Nucleus of Bioinformatics and Nucleus in Information Technology.

Maintenance, Operation and Consolidation of PREMiUM – Multiuser Equipment Network Program of the HC–FMUSP System – USP Medical School

In order to consolidate the PREMiUM – Network Program of Multiuser Equipment of the HCFMUSP and FMUSP System (page 115), an agreement was signed between Finep, HCFMUSP and FFM, in early 2017.

The general objective is to enable the preventive and corrective maintenance of high cost equipment and advanced technology installed in the Network, especially those with high potential for generating research in partnerships, be they with other national or international institutions or private initiative.

In addition, the proposal also aims to acquire equipment to complement existing nuclei (sequencing, chromatography/mass spectrometry and Biobank), complementary accessories (7 Tesla magnetic resonance whole body) and highly specialized labor, increasing not only the Productive capacity of the services rendered, but also its varieties, attending the requests of users and diversifying the researches carried out.

Structuring of the laboratory network as centers for the continuous training of professionals and technical support for the care of patients with coagulopathies and hereditary plaque diseases

The formation of a network of technical support to the laboratories for specialized examinations and, consequently, the improvement of care for patients with hereditary coagulopathies and plaque diseases, is of paramount importance to the patient and to the ICHC medical staff.

This proposal, approved at the end of 2016, by means of an Agreement signed between the Ministry of Health and FFM, to be developed by the Hematology Service of HCFMUSP, aims to: **a)** To improve equipment diagnóstico laboratorial das structures of laboratories trained in laboratory diagnosis of hereditary haemorrhagic diseases; **b)** To create training centers for professionals, so that they can offer continuous training to professionals involved in the laboratory diagnosis of hereditary hemorrhagic diseases; **c)** To acquire equipment for reference laboratories in the laboratory diagnosis of hereditary hemorrhagic diseases, to serve as technical support.

These activities continued in 2017.

Renovation of the Technological Park and Furniture of the Children's Institute of HCFMUSP

Considering the technological evolution in the hospital area, as well as the increasing demand for new treatments by patients throughout the national territory, the replacement of equipment by obsolescence is of extreme importance.

This project, made possible through an agreement signed between the Ministry of Health and FFM, at the end of 2016, which benefited the ICr, aims to replace Anesthesia Apparatus, Thermodisinfecting Washers and furniture installed in the Children's Institute more than ten years ago. Obsolete equipment, which does not offer the minimum conditions of safety and quality for the care of patients in the ICr.

Such equipment is required for support in performing endoscopy and tomography procedures, as well as in the Central of Sterilized Material, for cleaning respiratory articles and disinfecting surgical instruments. The same applies to the armchairs, which are necessary in the Inpatient Units for accommodation of inpatient companions.

These activities continued in 2017.

Renewal of the Technological Park – Replacement of Hospital Conservation Chambers and Computers of the Children's Institute of HCFMUSP

The ICr-HCFMUSP serves children and adolescents with complex diseases (650 hospitalizations/month, 98 % of hospital occupation). Many of the medicines used for treatment are thermolabile and require adequate storage conditions. The processes, assists and monitoring are carried out with the technological support of computers and software, necessary for registration of dispensing medications, electronic prescription, clinical evolution, visualization of clinical and imaging exams.

This project, initiated at the end of 2016 by ICr, through an agreement signed between the Ministry of Health and FFM, was carried on in 2017. It aims to replace the current chambers of refrigeration (to improve the control and monitoring of temperature and Alarm) by appropriate equipment for the storage of medicines, and replace aging and obsolete computers with modern equipment, improving the care and safety of patients, medical professionals and multiprofessional team.

Reform of the ICHC Surgical Center

The ICHC has almost 50 % of the existing beds in HCFMUSP, being considered a hospital of excellence and reference in care, education and research and pioneer in many medical procedures in high complexity.

The surgical center unit consists of the set of elements destined to the surgical activities, as well as to the anesthetic and postoperative recovery.

Since its installation 30 years ago, the ICHC Surgery Center has not undergone major interventions in its physical structure; However, in recent years, there have been significant changes in surgical procedures, including new techniques and deployment of new equipment.

This project, developed through an agreement signed in 2014 between HCFMUSP, SES-SP, and FFM, aimed at the improvement works in 23 rooms of the Surgical Center of the ICHC, currently constituted by 33 surgical rooms, divided into four blocks.

The complete reform totals 1,326 m^2, allowing an improvement in patient safety and the working conditions of the technical staff.

These activities continued in 2017.

Preliminary Draft for the HCFMUSP Collaborating Center on Alcohol and Drugs

This project, financed through an agreement signed between Senad, FFM and HCFMUSP, at the end of 2010, presents the proposal to equip the Collaborating Center in crack and other drugs, whose purpose is to provide assistance, teaching, care and research related to use, abuse and dependence on crack, alcohol, tobacco and other drugs.

This center should have its own physical area, provided for in the "Coxo Hospital Complex" (page 34), and it will be developed aiming at an integrative model of care for patients and relatives at the outpatient and inpatient level, associated with high social reintegration services Complexity and fully incorporated into a functional research structure, as is expected from a collaborating center of excellence, adding to this technical training activities in the multiprofessional residency modality.

Nearly two billion people use alcohol, 1.2 billion tobacco, and between 155 million and 250 million people have already reported using recent (in the last 12 months) and illicit use of some other psychotropic substance (UNODC, 2010), Which is currently associated with 9.0 % of the global burden of diseases (WHO, 2009).

In addition to the individual effects of morbidity and mortality, the use of psychotropic substances is related to important social developments, such that the phenomenon has transcended from the category of "health problem" to the category of "social problem". Among these social effects, drug use has generated a burden on the economic system, through direct costs, indirect costs and unattainable costs, such as worsening quality of life. (Murray & Lopez, 1997).

In Brazil, 22.8 % of the population over 12 years of age reported having made illicit and experimental use of at least one psychotropic substance (except alcohol and tobacco) (Carlini et al., 2007), a consumption that increased, In the period from 2001 to 2005 (Fonseca et al., 2010).

Currently, crack dependence is the most frequent cause of hospitalization for cocaine use. In a cross-sectional study of 440 patients from six psychiatric hospitals in Greater São Paulo between 1997 and 1998, 70 % of patients hospitalized for cocaine problems were users of crack cocaine (Ferreira−Filho et al., 2003).

These activities continued in 2017.

Multiuser Equipment Network Program (PREMiUM)

The Multiuser Equipment Network Program (PREMiUM) is a service provider platform created by the Board of Directors of FMUSP and Direx of LIMs, developed and implemented with the support of FFM and with funding from agencies such as FAPESP and FINEP, which aims to stimulate Research and innovation in the FM/HCFMUSP System optimizing the application of financial and human resources, increasing the complexity, integration and cooperation in the works.

The PREMiUM Network concentrates, in a wide and specially dedicated space, cytometry equipment, experimental models, biobank, structural and functional genomics equipment and for special analyzes, imaging devices, microscopy and microscopic technique. Requests for use of the equipment are conditioned to research projects under development.

The internal user can register in the site of the multiuser system, which generates a valid identification during the use of the Network. External users can also register for the site, for request of budget and conditions of payment. The financial management of the laboratories is the responsibility of the Faculty of Medicine Foundation, which issues invoices and controls payments and registrations.

Based on the observation that the research projects had different themes, but similar approaches, the elaboration of the Program was based on the premise of acquiring an equipment park, to be maintained collectively and used simultaneously, offering the most modern technologies related to biomedical research and identified as common among researchers.

The program has different laboratories, distributed by the FM/HCFMUSP System, to receive the certain technology, and with this, the host laboratories gain the responsibility of managing the platform openly, making available even the agendas on the site.

For this, the services provided are coordinated by renowned researchers in their areas of practice, who will ensure the conditions necessary for both researchers of the FM/HCFMUSP System and researchers outside the System to benefit from the equipment fleet.

To date, the following Multiuser Cores have been implemented:

1. Cytometry;
2. Experimental Models;
3. BioBank;
4. Structural and Functional Genetics;
5. Special Analyzes;
6. Image;
7. Microscopy and Microscopic Technique;
8. Scientific Documentation; and
9. Publishing.

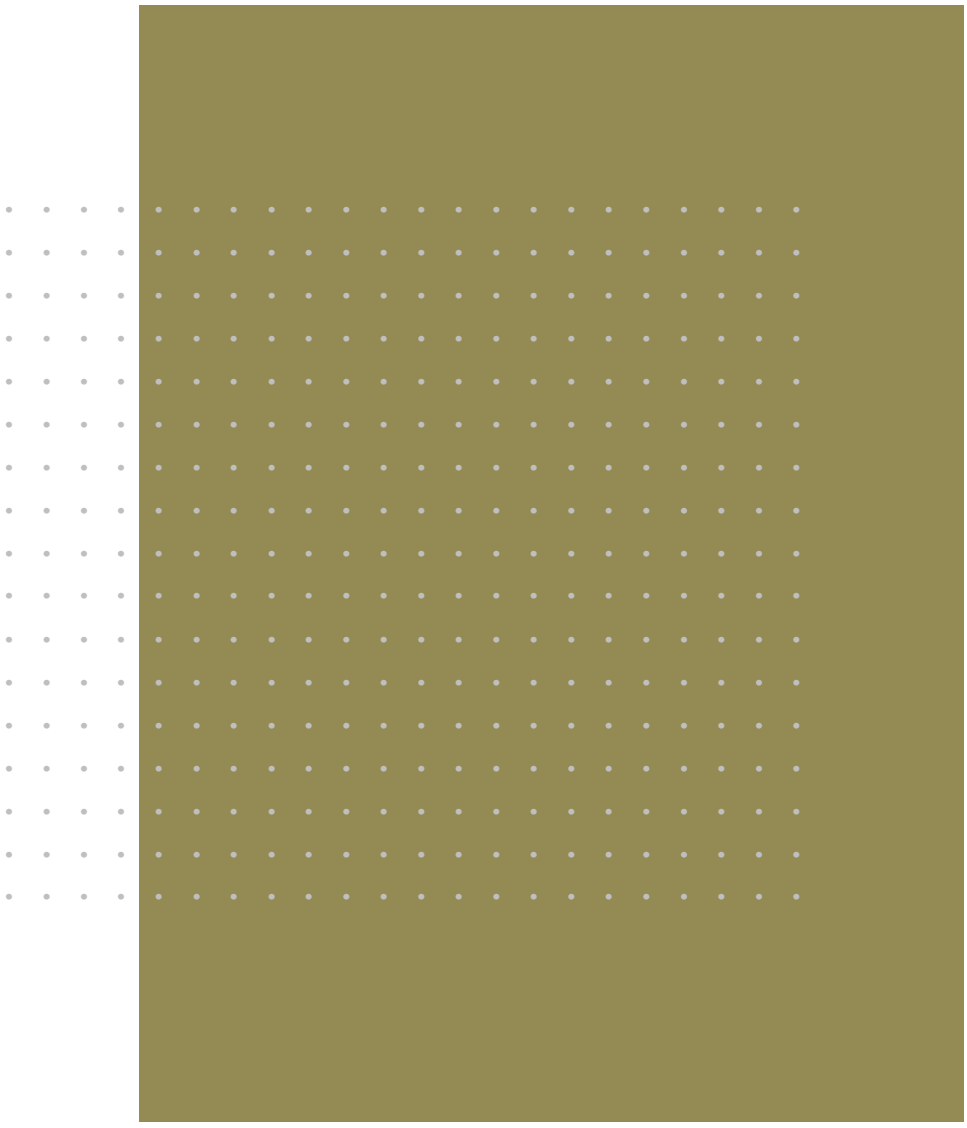
The services provided by the multiuser cores are available on page www.premium.fm.usp.br.

In 2017, two agreements were signed with Finep that will enable its maintenance, operation and consolidation (page 112).

The resources are the result of the approval of the project sent from the Finep Public Call for National Multiuser Centers, which sought to select proposals for strengthening the multiuser Centers already established, as well as to induce the organization of new centers in the North, Northeast and Central West regions of Brazil, through the improvement of the infrastructure necessary for their development, so that they can act as national centers in their related fields.

The PREMiUM was created in order to provide conditions for all researchers in the System and elsewhere to have access to the most modern technologies of contemporary biomedical research and at the same time optimize the application of specialized financial and human resources. The laboratories are coordinated by researchers with experience in their areas of operation and operated by trained technicians.

FFM Profile



FFM PROFILE

Brief History

FFM is a private law foundation that strongly supports the FMUSP and HCFMUSP initiatives, with full participation in the decisions of its collegiate bodies: the Deliberative Council and the Planning and Control Commission of HCFMUSP and the Congregation and the Technical-Administrative Council of FMUSP, assuring the observance of its normative guidelines before the state control and inspection bodies: the São Paulo Public Prosecution Foundations and the State and Municipal Audit Courts, as well as external audits.

On September 18, 2017, FFM completed 31 years of existence. It was born of an initiative of the FMUSP Board of Directors, which invited AAAFMUSP to be proponent of its creation, as a non-profit foundation of private law.

From the outset, FFM's statutory objectives have been based on the support of teaching, research and health care at FMUSP and at HCFMUSP and the preservation of the CAOC's heritage. From 1988, through the University Agreement, the FFM became responsible for receiving SUS and Supplementary Health payments due to HCFMUSP (with the exception of InCor).

Of its current staff of 12,550, only 368 are allocated to its direct administration; the remaining professionals work directly in the assistance activities, development of comprehensive health care and patient care.

FFM's support to FMUSP and HCFMUSP is mainly exercised in three areas: **1)** human resources (contracting and training); **2)** costing (purchases, maintenance); and **3)** investments (equipment, construction works). Such actions are made possible through resources managed by FFM or its own assets, which are applied according to decisions prioritized by the Institution, giving greater agility and seriousness to national and international procurement procedures and allowing technological updating, enhancement and training of the functional board to better perform activities.

Today, FFM works in three main axes: **1)** the **University Agreement**, signed in 1988 between SES-SP, HCFMUSP and FFM, aimed at free care of SUS patients; **2) Management Contracts**, which is responsible for the administrative and financial management of two institutions or health care systems: ICESP and IRLM; and **3)** the various legal instruments signed with partner institutions interested in the development of the medical sciences.

The financial resources derived from these actions are fully applied to the activities of the FM/HCFMUSP System, following the guidelines of its governing bodies.

Facade of the headquarters of FFM, Av. Rebouças

FFM supports several social assistance projects, carried out inside and outside the FM/HCFMUSP System facilities, aimed at the most needy population, without prejudice to SUS care. A number of research and assistance projects are also being developed, with the support of FFM.

FFM fully reverses its whole operating revenues surplus in favor of the operation itself and the execution of projects and programs.

FFM reports to various agencies with which it maintains agreements, such as Ministries, State and Municipal Secretariats, and several public or private institutions, national and international. Due to the administrative, financial and ethical transparency that presides over it, FFM has gained great credibility and is therefore frequently consulted to take on new projects. However, it faithfully follows the recommendations of the Curatorship of Foundations and its Curator Council to restrict its action, mainly, to FMUSP and HCFMUSP, unless it is fully justified the assumption of new projects, for academic and social reasons.

Consolidated Results

The University Agreement, signed in 1988 between HCFMUSP, SES-SP and FFM, focused on the free care of SUS patients, enabled FFM to direct its efforts in promoting comprehensive health care for **SUS users**, in addition to the development of actions and services for the improvement and expansion of HCFMUSP's operational capacity, the training and improvement of human resources in the health area and the encouragement of teaching and research.

Partnerships with public and private, national and international institutions allow FFM to develop several programs, mainly in the areas of health and education, that benefit the population.

FFM fully reverses its whole operating revenues surplus in favor of the operation itself and the execution of the projects and programs.

The annual result of these revenues can be verified by means of the summary table below.

FFM CONSOLIDATED RESULTS							
(In thousands of R$)	**2011**	**2012**	**2013**	**2014***	**2015**	**2016**	**2017**
Income	**961,418**	**1,012,867**	**1,206,359**	**1,222,869**	**1,183,383**	**1,159,527**	**1,187,917**
SUS health care	222,270	246,519	282,535	291,880	276,587	277,231	287,472
Private medical care	73,464	73,343	86,892	90,920	87,654	111,018	119,968
Subsidies and contributions	559,163	573,995	713,826	680,251	649,926	619,578	617,768
Financial income (net)	37,767	30,436	35,004	51,335	56,076	60,510	48,542
Technical services	27,560	39,825	39,432	52,299	49,834	44,815	42,077
Other (courses, donations, etc.)	41,194	48,749	48,670	56,184	63,306	46,375	72,090
Expenses	**809,317**	**967,274**	**1,043,148**	**1,132,588**	**1,132,359**	**1,100,606**	**1,165,371**
Personal	468,362	555,616	595,332	666,520	704,885	677,160	672,852
Materials for consumption	174,784	209,529	223,114	237,924	207,134	201,922	225,173
Professional Services	118,943	139,499	166,129	163,469	152,892	145,116	152,751
Other (general, depreciation, etc.)	47,228	62,630	58,573	64,675	67,448	76,408	114,595
Result	**152,101**	**45,593**	**163,211**	**90,281**	**51,024**	**58,921**	**22,546**

* With the closing of the ICESP Management Agreement in 2014, there were occasional operations that, due to their nature, were not incorporated in the bove statements, namely: return of the contingency fund to SES (R$43.8 million), return of residual balances to SES (R$12.7 million) and transfer of inventories to HC (R$25.8 million).

When comparing FFM's total revenues, in 2017, there is an **increase of 24 %** in relation to 2011. Income from medical consultations performed by the SUS **increased by 29 %** in that period, mainly obtained through of revaluations of the fixed amounts established in the formal agreements that regulate the onlendings.

The percentage increase observed in SS revenues was, however, well below that of private medical assistance (Supplementary Health and similar) revenues, which **increased 63 %** in the period, as a result of the joint efforts of HCFMUSP to expand health care, and FFM in the improvement of flows, controls and collection. FFM has fully reversed this substantial evolution of operating revenues in favor of the operation itself and the execution of the projects.

The **investments in infrastructure and equipment** made by FFM in 2017 totaled approximately **R$26.2 million**. R$15.1 million were invested in HCFMUSP, R$4.2 million in FMUSP, R$6.3 million in ICESP, R$119 thousand in the IRLM and R$99 thousand in other agreements. The FFM Management, in turn, made investments of about R$257 thousand, with emphasis on equipment and computer systems.

FFM CONSOLIDATED RESULTS							
(In thousands of R$)	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Total	**60.6**	**39.6**	**49.2**	**54,9**	**42,5**	**26,9**	**26,2**
Equipment	22.5	26.1	22.8	16.9	26.4	13.2	11.1
Buildings and Facilities	27.7	5.2	15.1	25.8	7.8	7.3	8.1
Computers	4.6	4.4	6.1	6.3	5.4	4.1	5.2
Others (furniture, vehicles, etc.)	5.8	3.9	5.2	5.9	2.9	2.3	1.8

Strategies

Of its current staff of 12,550, only 368 are allocated to its direct administration; the remaining professionals work directly in the assistance activities, development of comprehensive health care and patient care.

Since its creation on September 18, 1986, FFM has been playing a crucial role in fulfilling its mission as a foundation to support the activities of FMUSP and its HCFMUSP.

Since 1988, it has maintained cooperation agreements with SES-SP, which foresees a series of managerial activities, ranging from billing for medical-hospital services and human resources management of the FM/HCFMUSP System, to reforms and purchases of equipment and supplies, among others. It also supports programs of the FM/HCFMUSP System, its extension courses, events, research projects, clinical studies, among other initiatives.

Despite being considered by the Foundation Trustee as a foundation of private law, FFM had to adjust to the requirements of the State Court of Auditors, thus adjusting its Purchasing Regulation and the staff selection criteria for FMUSP and the FM/HCFMUSP System, by bringing them closer to those of the Federal Law 8666/93, and has since then carried out biddings and contests, mainly for the selection of staff in the area. Therewith, it aimed to guarantee greater publicity, competitiveness and economy, without loss of agility, in the handling of its processes.

FFM's activities are in synergy with the decisions of the various collegiate bodies of the FM/HCFMUSP System.

FFM counts with the Curator Council as its maximum control body, headed by the president (who corresponds to the Director of FMUSP) and ten other members. Another body is the Advisory Council, composed of 30 invited members of the FM/HCFMUSP System and civil society.

A key feature of its institutional strategy is **transparency**, given the broad inspection to which it is submitted. FFM's activities are audited by the Public Prosecution Foundation Trustee, independent external auditors and the State Court of Auditors, as well as providing accounts of its projects to departments such as Ministries, State and Municipality Offices, and various public and private, national and international institutions. In the relationship with partners, it operates according to regulations agreed on a case-by-case basis, always guaranteeing transparency and austerity in the management.

The FFM reports to the Board of Trustees (four meetings/year) and the Advisory Board (two meetings/year). In these cases, accountability is given through its Situational Report. Each year, the FFM presents, for analysis, these two members, its Work Plan for the following year and the Activity Report of the previous year. In the Deliberative Board and in the Planning and Control Committee of HCFMUSP, FFM displays monthly, the Cash Flow "book" of the operational accounts. It also publishes the bimonthly edition of FFM's Journal, with various and updated contents related to the FM/HCFMUSP System.

Over the course of its 31 years, it has sought to constantly **improve** its standard of services and is committed to fulfilling its objectives and meeting the needs of its partners. The continuous **modernization** of its technical infrastructure, adaptation to the current technological demands and the **training** and specialization of its staff are another of its priorities; thus, investments in human resources and internal infrastructures and in the maintenance of the FM/HCFMUSP System are translated into a host of positive indicators obtained during its existence.

Because of its credibility before the subsidizing agencies, the amount of cash managed by FFM has significantly increased over the years. In view of the substantial evolution of **operating revenues**, projects, contracts and agreements, FFM has received significant amounts of financial investment, which is fully reverted in favor of the operation itself and the projects executed by FFM.

In 2017, there was a **consolidated operating surplus** of approximately R$23 million, with a cash balance of approximately R$510 million. The financial management of these resources is done through the management of accounts of the Management Centers, or CGs (about two thousand active accounts), according to the guidelines approved by the FFM Curator Council, the HCFMUSP Deliberative Council and the FMUSP Congregation.

The **financial guideline** maintained the search for positive working capital, guiding its spending decisions or investments in the prior requirement of the existence of financial resources to do so.

It should also be noted that, in 2017, FFM received, through **Donations**, the amount of R$14 million, which were reverted to several projects in the areas of assistance, teaching and research, including equipment and medicine purchases for FMUSP and for the attendance in the FM/HCFMUSP System, in addition to ICESP and IRLM projects.

FFM has guided its management, based on some basic assumptions: **1)** the sincere recognition of the good work performed by its professionals; **2)** the real opportunity that it allows for the professional and personal growth of its employees; **3)** the opportunity for the staff to make contributions to leverage and improve the numerous institutional processes; **4)** fair and just remuneration of its professionals; and **5)** the constant updating of its material and technical infrastructure to respond to the ever increasing demands of the FM/HCFMUSP System.

To do so, FFM is guided by: **1)** a Participatory and Shared Management Model; **2)** a Code of Positive Values; **3)** a Valuation Project of its Collaborating Body; and **4)** a pattern of permanent Improvement of Institutional Processes and Interpersonal Relationships.

Of its current staff of 12,550, only 368 are allocated to its direct administration; the remaining professionals work directly in the assistance activities, development of comprehensive health care and patient care.

FFM's 368 direct management professionals are distributed and organized in one of the nine Specialized Management Units, in addition to its Board of Directors and Financial Superintendence, i.e, Legal Consulting, Controlling, Billing and Control, Financial, IT, Materials and Import, Projects and Research, Human Resources and Supplementary Health.

Each Management has more than one head, that is, it has a leadership with technical and managerial expertise, which coordinates its team with lucidity, determination and responsibility. This gives leadership autonomy, but not independence, because the numerous institutional processes (sequence of tasks) are not restricted to a single department.

This work requires a permanent interaction between the departments so that the processes are completed with quality. In this way, a genuine network of processes is created, with a two-way flow, where each department depends on the other. The general coordination is the responsibility of the Board of Directors, supported by the Financial Superintendence.

Aiming at the effectiveness of management, FFM's Board of Directors performs its Integration Meeting on a monthly basis, with the participation of the Financial Superintendence and the Specialized Management of each department. Everything is shared: difficulties, problems, demands of the FM/HCFMUSP System and the possible solutions. The meeting is dynamic and has generated greater cohesion and institutional integration. In the second part of the meeting, specialized authorities, upon invitation, hold lectures on topics of interest to FFM.

The management model also emphasizes a Code of Positive Values, which permeates the entire institution, represented by probity, transparency, reliability, good example, commitment, responsibility, flexibility, tolerance, listening ability and patience.

The Board of Directors has a special focus on people, by caring about their professional and personal growth. The Training and Empowerment program of its employees improves their technical training, making them more efficient and effective. In addition, the Board of Directors seeks to fulfill the legitimate needs of its professionals, through a re-examination of positions, functions, frameworks and promotions, always seeking to reward the merit. This opens the way to professional growth, generates adherence, a spirit of collaboration and a sense of belonging to the institution.

Furthermore, the Board of Directors encourages the Improvement of Processes and Interpersonal Relationships. People have diverse backgrounds, different personalities and varied attitudes and behaviors. FFM understands that people's technical competence, although absolutely necessary, is not enough to fit the profile required from its employees. Thus, it invests and encourages the improvement of interpersonal relationships so that one recognizes the other, with mutual tolerance, acceptance and bilateral respect. This reduces reactivity, improves the institutional environment and transforms opposition into cooperation.

As the achievement of the numerous institutional processes − the sequence of tasks to achieve the final result − depends on the sequential performance of several Management teams, in order for the processes to run without interruption, within the agreed deadline and with quality, the collaboration of all is needed; so, it is advantageous to people and to the Institution.

FFM is also responsible for the management of Clinical Studies, under the supervision of internal teachers, to evaluate the efficacy,

tolerability and safety of drugs, and the researches in humans and animals.

In 2017, 148 teaching and research assistance programs / projects were underway in the institution, as well as 371 clinical studies developed in the FM/HCFMUSP System.

In 2008, FFM was recognized as a Social Organization, a private non-profit organization whose activities are directed to teaching, scientific research, technological development, protection and preservation of the environment, culture and health, receiving this title from the Public Administration and authorized to conclude with it management contracts to perform services not exclusive to the state.

Signed in 2008 with SES-SP, the Management Contract (from 2014 to 2016, Management Agreement) provided for the administration of the activities of ICESP, a tertiary hospital highly specialized in the treatment of cancer, which serves patients for complex treatments, coming from all the state.

In 2010, FFM signed a management agreement with SES-SP for the management of health activities and services at IRLM. Inaugurated in September 2009, the Institute is a unit of ImRea, located in the neighborhood of Morumbi, and was designed to be a center of excellence in treatment, teaching and research in Rehabilitation.

In addition, in 2017, it developed, in conjunction with the FM/HCFMUSP System, partnerships with institutions interested in the development of medical sciences, such as:

Federal Public Bodies:

- National Bank for Economic and Social Development – BNDES;
- Regional Council of Medicine of the State of São Paulo – CREMESP;
- Ministry of Justice/National Secretariat for Drug Policy – Senad;
- Ministry of Science and Technology/CNPq National Council for Scientific and Technological Development;
- Ministry of Science and Technology/FINEP – Financier of Studies and Projects;
- Ministry of Health – MS;
- Ministry of Labor – MPT.
- **State Public Bodies:**
- São Paulo Research Foundation – FAPESP;
- Adolfo Lutz Institute;
- Institute of Infectious Diseases Emilio Ribas;
- State Secretariat for Social Assistance and Development of São Paulo – SEDS;
- Secretary of State for Education – SEE-SP;
- São Paulo State Department of Health – SES-SP;
- The State University of Amazonas.

National Private Institutions:

- Alzira Benefit Association Denize Hertzog da Silva – ABADHS;
- Crefisa S/A Credit, Financing and Investment;
- Butantan Foundation;
- Maria Cecília Souto Vidigal Foundation;
- General Electric do Brasil Health Care;
- AMBEV Group;
- Itaú Group;
- Ouro Fino Saúde Animal Ltda.;
- Vale S/A.

International Institutions:

- *Aids Clinical Trials Group – ACTG;*
- *Aids Health care Foundation do Brasil;*
- *Bill and Melinda Gates Foundation;*
- *Blood Systems Research Institute;*
- *Case Western Reserve University;*
- *David Rockefeller Center for Latin American Studies – Harvard University;*
- *European Foundation for the Study of Diabetes;*
- *European Union by European Commission;*
- *Family Health International;*
- *General Electric Health care;*
- *Grand Challenges Canada;*
- *Health Research Incorporated;*
- *Harvard University;*
- *Institut Mérieux ;*
- *Johns Hopkins International Injury Research Unit;*
- *Muscular Dystrophy Association;*
- *National Institutes of Health – NIH;*
- *Office of Naval Research Global;*
- The United Nations Organization for Education, Science and Culture – UNESCO;
- World Health Organization – WHO (OMS) / Pan American Health Organization – PAHO (OPAS);
- The United Nations Development Programme – UNDP (PNUD);
- *Research Foundation for Mental Hygiene (The New York Psychiatric Institute);*
- *Rush University Medical Center;*
- *The Brain and Behavior Research Fund – NARSAD;*
- *The Chancellor, Masters and Scholars of the University of Cambridge*;
- *The George Washington University*;
- *The Ohio State University;*
- *The Smile Train;*
- *The Stanley Medical Research Institute;*

- *The University of North Caroline;*
- *University of Bristol;*
- *University of California;*
- *University of California, Davis;*
- *University of Cambridge.*

The **FMUSP Restoration and Modernization Project,** developed between 2000 and 2008, had the fundamental support of FFM, which shared with FMUSP the coordination of the Project and the funding of resources. The purpose of the initiative was to value the historical heritage and adapt its spaces to the activities currently carried out, improving the infrastructure and logistics of work processes. The Project promoted not only a physical reform, but a profound human and cultural change throughout the FM/HCFMUSP System community. Maintenance work continued, in 2017, now incorporated into the operating routine of FMUSP.

In its 31 years of existence, the FFM has been publicly recognized for its role as a social assistance charity, through the obtaining and maintenance of several **certifications**, among which:

- Federal Public Utility Declaration (repealed by Law no. 13.204/2015), State and Municipal;
- Attestation of Registration and Certificate of Beneficial Entity of Social Assistance **(CEBAS)**, deferred by Portaria SAS / MS nº 946, of 09/25/2014, published in the DOU on 09/26/2014, with validity of 06/12/2010 to 06/11/2015 (currently under renovation);
- Certificate nº 018/2008 of Qualification as Social Organization of the Municipal Secretariat of Management of the Municipality of São Paulo;
- Certificate of Qualification as Social Health Organization of the State Health Department of the Government of the State of São Paulo − Case SS 001/0001 / 002.913/2008;
- Accreditation with CNPq no. 900.0011/1990, valid until 04/13/2021;
- Declaration of Immunity Recognition of Tax on Transmission "Causa Mortis" and Donation of any Goods or Rights − ITCMD − Process nº 51220− 135787/2017, valid until 2021;
- Registration Certificate nº 0308/SP/2000 of the State Council of Social Assistance – CONSEAS

CEBAS is granted by the Ministry of Health to private non-profit legal entities recognized as a Social Assistance Charity Entity for the provision of services in the Health Care Area. Obtaining CEBAS guarantees the exemption of social contributions and the celebration of agreements with the public power, among others.

FFM has had this title since 1989, and because of this, it has access to a tax exemption that corresponds to 32 % of its turnover. These savings are returned to the FM/HCFMUSP System, and can be reinvested in education, research and quality attendance to the population, in the form of investments and for costing purposes. As a result, there are more resources for investment in state-of-the-art equipment, training, scholarships, research funding, redesign of physical spaces, acquisition of medicines, hiring professionals allocated to research projects, among many other demands that are required daily by the structure of the FM/HCFMUSP System, the largest center for education, research and health care in Latin America, where 50,000 people pass by every day.

In 2017, FFM actively participated, as a Member or Consultant, in the following Commissions, Committees, Working Groups and other initiatives:

- ✓ Financial Support for the FMUSP Medical Student
- ✓ FAPESP Scientific Advisory Board;
- ✓ FMUSP Research Committee;
- ✓ Planning and Control Committee of the Deliberative Council of HCFMUSP;
- ✓ Information Technology Committee;
- ✓ FMUSP Congregation;
- ✓ Advisory Board of Fundação Zerbini;
- ✓ Advisory Council of HCFMUSP;
- ✓ HCFMUSP Deliberative Council;
- ✓ Board of Directors of the Morumbi Unit / Lucy Montoro Rehabilitation Institute;
- ✓ Board of Directors of ICESP − Cancer Institute of the State of São Paulo;
- ✓ Council of the CIEE Enterprise−School Integration Center;
- ✓ Higher Council for Advanced Studies − Federation of Industries of the State of São Paulo (FIESP);
- ✓ Higher Council of Health Management of the State of São Paulo;
- ✓ Coordination of the Pacaembu Polo Property;
- ✓ HCFMUSP Innovation Polo Team;
- ✓ School of Permanent Education;
- ✓ Clinical Studies of the HCFMUSP Clinical Board;
- ✓ Management of the Satellite Institute of Oncology / Osasco-SP;
- ✓ HCFMUSP / FFM Scoring Goals;
- ✓ People Management Center;
- ✓ Computer Master Plan;
- ✓ Coalition Health Institute Project.

The FFM also supports the conveners in carrying out its various events. In 2017, he participated in the following technical−scientific and institutional events: **a)** Support to the 16th CIAD – Brazilian Congress of Interdisciplinary Home Care; **b)** Support to the V Course of

Psychiatric Clinic; **c)** V Symposium of Physiotherapy of HCFMUSP and I National Conference of Physiotherapy of ICHC FMUSP; **d)** II Interdisciplinary Symposium of the Medical Clinic Department of FMUSP – SICLIM 2017; **e)** FMUSP x FLU 2017 Event; **f)** NEFROUSP 2017 – 20th Annual Nephrology Course; **g)** First Practical Course of Glomerulopathy of the University of São Paulo; **h)** XII Advanced Course on HIV Pathogenesis; and **i)** IUIS – Vaccines Course – Immunology.

In 2017, FFM continued to carry out the renovation, restoration and maintenance of the buildings, gardens, parking lots and infrastructure of the **Pacaembu Cultural Complex – PCP**. In addition, it developed the following activities: **a)** participation in public hearings on the Review of the São Paulo Strategic Master Plan; and **b)** participation in meetings with committees of city councilmen and leaders of the São Paulo City Council to deal with the correction of the mistaken launch of the PCP area as a residential, by launching the area as ZOE – Special Occupation Zone (NR3), without damaging the preservation of the area, as required by DEPAVE, CONPRESP, CONDEPHAAT, SEHAB, SEMPLA and SVMA. It also expanded alternative suggestions for the use of the Polo, so that the social use of the property could be operative, in compliance with that required by the process of land foreclosure.

In addition, it **financially supported** the FM/HCFMUSP System in the following technical–scientific and/or institutional initiatives, whose objectives were in line with its Bylaws:

APPROVAL	EVENT
22/12/16	V Symposium of Physiotherapy
16/01/17	14th Course of Introduction to the League of Cardiology and Paediatric Cardiac Transplantation
16/01/17	Reception of the Alumni – AMERUSP
20/01/17	Harvard Campus Brazil Collaborative Course on Public Health
30/01/17	63rd Course of Introduction to the Fight League of Rheumatic Fever
03/02/17	I Academic Symposium on Intensive Care Medicine
03/02/17	League of the Esophagus, Stomach, and Small Intestine
08/02/17	Humanization League
13/02/17	International Women's Week
15/02/17	Introductory Course of the Mastology League of FMUSP
16/02/17	League of Plastic Surgery
16/02/17	League of Clinical Oncology of FMUSP
22/02/17	Academic Medical Extension
21/02/17	XXI Introductory Course of the Geriatrics and Gerontology League FMUSP
21/02/17	League of Obesity and Metabolic Surgery
21/02/17	Introductory Course to the League of Pain
21/02/17	Introductory Course to the Headache League
06/03/17	League of Gynecological Surgery
06/03/17	XII Introductory Course to the League of Clinical Emergencies
07/03/17	Introductory Course of the FMUSP Surgical Expedition
08/03/17	Introductory Course to the League of Pediatrics and Child Care of FMUSP
08/03/17	Introductory Course to the Anxiety, Phobia and Panic League of FMUSP
08/03/17	VI Introductory Course to the League of Endoscopic Surgery of FMUSP
09/03/17	Introductory Course to the League of Posture and Movement of FMUSP
16/03/17	Introductory Course to the League of Diseases
21/03/17	Introductory Course to the League of Mastology
21/03/17	Introductory Course to the League of Medical Education
28/03/17	Introductory Course to the Health Management League
28/03/17	Participation in the 24th Hospital Fair
28/03/17	Introductory Course to the Blindness Prevention League
28/03/17	Introductory Course to the League of Cardiovascular Emergencies
28/03/17	Introductory Course to the League of Trauma Surgery
28/03/17	Introductory Course to the League of Autoimmune Diseases
25/03/17	II Introductory Course to the League of Coronary Artery Disease
28/03/17	XXXVI University Medical Congress – COMU
06/04/17	10th Introductory Course of the League of Thyroid
11/04/17	Interdisciplinary Brazilian Congress of Home Care – CIAD
11/04/17	IV Jornada of the Social Service in Palliative Care
11/04/17	Expedition – Scientific Flag

11/04/17	Meeting of Generations
11/04/17	Introductory Course to the League of Vascular and Endovascular Surgery of FMUSP
11/04/17	IX Course of Infection in Transplants of the Department of Infectious and Parasitic Diseases
11/04/17	National Student Meeting
12/04/17	Introductory Course to the League of Neurosurgery
19/04/17	X *Gastrinho*
25/04/17	VIII Introductory Course to the League of Clinical Genetics
25/04/17	MedTalks
04/05/17	League of Nephrology
19/05/17	League of Fight the Syphilis and Other STDs
18/05/17	League of Occupational Therapy in Orthopedics and Traumatology of FMUSP
06/06/17	I Symposium on Reproducibility in Biomedical Sciences
06/06/17	League of Pathology
07/06/17	League of Systemic Arterial Hypertension
12/06/17	Multidisciplinary Academic League of Eating Disorders of FMUSP
27/06/17	League of Physical Medicine and Rehabilitation
30/06/17	Mad Alegria Project
07/07/17	League of Heart Failure
13/07/17	Introductory Course of the League of Depression and Other Mood Disorders
18/07/17	XIX Introductory Course of the League of Cardiothoracic Surgery
25/07/17	League of Pediatric Surgery
02/08/17	Introductory Course of the League of Urology
07/08/17	Introductory Course of the League of Surgical Technique and Experimental Surgery
23/08/17	League of Surgery and Liver Transplantation
12/09/17	Introductory Course to the Childhood Obesity League
24/09/17	III Symposium on Humanization and I International Symposium on the Patient Experience of ICESP
28/08/17	I Seminar on Oncological Dentistry of ICESP
31/08/17	Tobacco Treatment League
15/09/17	Scientific Initiation Forum of FMUSP
19/09/17	XI Speech Therapy Conference of USP
19/09/17	Project of Promotion and Participation of the Journal of Medicine in the National Context with Associated External Nuclei (NEAs)
27/09/17	XX Introductory Course of the League of Anesthesiology, Pain and Intensive Therapy of FMUSP
29/09/17	55th Brazilian Congress of Medical Education (COBEM)
03/10/17	Introductory Course to the Gynecology League of FMUSP

Organizational Structure

FFM's direct management professionals are distributed and organized in one of the nine Specialized Management Units, in addition to its Board of Directors and Financial Superintendence. Each Management team boasts a head with technical and managerial expertise, which coordinates its team with lucidity, determination and responsibility.

The organizational structure of the FFM, established in order to tailor and organize its responsibilities and competencies in the development of assistance, teaching and research, is divided by strategic areas of specialization, so as to better meet the needs of its partners and the population.

In all, there are nine Departments: **1)** Legal Consulting; **2)** Controllership; **3)** Billing and Control; **4)** Financial; **5)** Computer science; **6)** Materials; **7)** Projects and Research; **8)** Human Resources; and **9)** Supplementary Health. Its attributions and results are analyzed below.

1) The **CONSULTORIA JURÍDICA** (Legal Consultancy) serves the civil, administrative, tax and labor areas, avoiding expenses with advice from outsourced law firms. Its activities are not only focused on the needs of representation in litigation, but mainly on the control of the rectitude in national and international contracts and agreements signed by the Institution, as well as all documentation and tax regularity before public agencies in various spheres.

In addition to overseeing the process of public utility and certification of philanthropy, in 2016, he dedicated himself to the development, promotion and expansion of his activities, from the elaboration and administration of hundreds of contracts and agreements to the coordination of labor, civil and tax litigation, judicial and extrajudicial. It also carried out legal proceedings with the organs of the Judiciary, Public Prosecution, Municipal, State and Federal Organs, Courts of Accounts, Social Councils and others and issued several legal opinions.

2) The **CONTROLADORIA** (Controller's) Department is responsible for the accounting, fiscal writing, rendering of accounts and patrimonial control of the Institution, among other functions.

3) The **FATURAMENTO E CONTROLE** (Billing and Control) Department is responsible for the billing of medical care services for SUS patients and Supplementary Health; and operations of collection, control and distribution of the amounts related to the services rendered in the units of Complex HCFMUSP, where it also develops actions in the search for improvement and improvement of billing, registration and control techniques. Besides these operations, other activities are highlighted:

A. In the segment of the Unified Health System – **SUS**:

a) Continuity to the improvement and maintenance of the registry of Clinicas/Instituto/G.

b) Adequacy of the analytical reports of production (Outpatient and Inpatient) with the implementation/inclusion of new fields.

c) Implementação e disponibilização de relatórios analíticos dos atendimentos ambulatoriais (APAC).

d) Active participation in the Billing Committee of the SUS, collaborating in the actions developed by the HCFMUSP Superintendence, adding efforts to improve management processes in the SUS segment.

e) Supporting and developing work to improve billing records/processes in the Superintendency Axis.

f) Support and follow-up of the Corporate MV System implantation.

g) Accreditation/Renewal of Transplant Accreditation (Establishment and Teams) granted in 2017: **(i) Teams**: Adult Liver Transplantation and Kidney Transplantation; **(ii) Establishment**: Bone Marrow Transplantation and Human Ocular Tissue Bank.

h) Partial implementation of the new flow to update CNES − National Registry of Health Establishment, in which the responsibilities of each area involved (NIS/FFM/Institute) were defined, in partnership with the Health Information Nucleus − NIS of the HCFMUSP Superintendency and Complex Institutes.

i) Improvement of the quality of the accounting information regarding the payments / distributions of the paid, rejected and restated AIHs informed by the DRS−1/SES, supporting FFM's Accounting with the internal and external Audit.

j) Improvement of work begun in 2016, in partnership with the Department of Informatics of FFM for the implementation of a new Information System, called Tableau, aiming at independence and agility in obtaining data on SUS billing and Supplementary Health (E.g.: for updating of the FPO − Schedule of Budget Programming).

k) Providing new consultations in the MV−FFM Indicators Board.

l) Improvement of the information quality, referring to the values transferred/distributed in the SCOL module, collaborating with the CGs and their Managers in the decision-making.

j) Improvement of financial indicators through conferences, data surveys, and suggestions for new implementations, in partnership with the FFM's IT Department.

B. In the **Supplementary Health** segment:

a) Improvement of the processes inherent to the billing of medical bills, in partnership with the Institutes, with analysis of the "in−loco" billing.

b) Recovery of glosses from previous years, through financial negotiations with health plan operators.

c) Continuation of the closer relationship with the health plan operators, resulting in a reduction in the term of receipt.

d) Technical support to the Financial Economic Nucleus (NEF / HCFMUSP) in the updates of the financial indices.

e) Technical and financial support to HCFMUSP Management Centers and Clinical Staff.

f) Improvement of the Online Consultation System (SCOL), in partnership with the Department of Informatics of FFM, resulting in the adequacy of the synthetic and analytical reports of billing and receipt.

g) Active participation of the Supplementary Health Billing Committee, collaborating in the actions developed by the HCFMUSP Superintendence, adding efforts to improve the management processes in the Supplementary Health segment.

h) Improvement of work began in 2016, in partnership with the Department of Informatics of FFM for the implementation of a new Information System, called Tableau, aiming at independence and agility in obtaining data on SUS billing and Supplementary Health.

The **AUDITORIA MÉDICA** (Medical Audit) Area of the FFM's **Department of Invoicing and Control** is responsible for analyzing medical records (medical reports, clinical records, outpatient records and other patient documents) to assess whether the procedures performed, as described in the medical records, were billed in accordance with current regulations of SUS. It also acts as an authorizer (issuing IAHs and high-cost procedures) and promotes the orientation process to the CGs, with a view to improving the quality of billing.

Besides these, it should be highlighted:

- ✓ Acting, together with the CGs / Institutes, in holding frequent meetings to advise on the most appropriate form of registration and billing of the procedures performed.
- ✓ Review of attendance sheets / tables and registration processes.
- ✓ Analysis of the AIH's for correction and complementation of its recorded data, mainly the AIH's financed by the FAEC, Multiple Surgeries and those that demand the use of OPM.

4) The **FINANCEIRO** (Financial) Department's mission of FFM Is to prepare and improve the internal structure of the receiving and payment sectors for the constant challenges posed by the business and the market.

In order to promote facilities, agility, transparency, security and traceability for the CG/Supplier/Customer/Sub−funder, we have constantly invested in the sophistication of tools and products, considering their adherence to the wishes and needs of the partners, as well as enabling them to greater usability, which means that employees also receive continuous training.

Direct and indirect improvements related to **Electronic Payment Requests (SP−e)** were implemented in 2017, the: **a)** implementation of a "Warning" during the matching of a request for payment and the FFM invoice for retuned products, in order to avoid undue payments and/or reimbursements; **b)** verification of absence or inconsistencies in the email address in the "Creditors Register" indicating "Warning" by email to the Accounts Payable so that the field is corrected before the Payment Forecast (referral to the bank) for two purposes: to enable creditors the receipt, by email, of the "Notice of Settled Payments" and also the "Income Reports", forwarded by the Tax Sector of FFM; and **c)**

implementation of the "Payment Remittance File" via bank, in addition to the payment remittance by date.

The **Electronic Receipt Request (SR−e)** was fully implemented for the Private Medical Attendance of Institutes. The other receiving businesses that circulate through FFM are being approved for full implementation during the 2018 tax year.

In 2017, it was necessary to delay the SR-e for implementation of the REGISTERED INVOICE. The Registered Invoice was a requirement of the Central Bank of Brazil (Banco Central do Brasil) and implemented by FEBRABAN through the "New Billing Platform", bringing benefits to the consumer and to society, such as greater ease in the payment of overdue accounts in any bank branch (after updating of the invoice on the bank's website by issuing the invoice), reduction of data inconsistencies, impossibility of double payment, identification of the Taxpayer number / Corporate Taxpayer number of the issuer and the payer, mandatory expiration date and amount, which facilitates the tracking of payments and the confirmation of the invoice data and the data recorded on the banks' billing platform and, consequently, the reduction of fraud and money laundering.

The FFM Registered Invoice is available for all types of receipt, ing being used as a pilot for the billing of the second corporate badge.

The **Management of Third−party Resources** implies the guarantee of liquidity coupled with the performance appropriate to the interest rates practiced in the local economy. Thus, financial investments are allocated to Investment Funds, whose sets are composed, for the most part, of government bonds and Bank Deposit Certificates indexed to the CDI variation. The Receipt and Payment efficiency results in a Cash surplus, which − invested on the financial market in low risk and fair return applications compatible with the variation of domestic interest rates − refunds and strengthens the institution.

5) The INFORMÁTICA (Data Processing) Department has as guidelines, for the execution of its activities, the **Investment Plan** and the **Work Plan**.

The Investment Plan is prepared based on the needs for improvement and maintenance of the infrastructure and is approved by the FFM Board of Directors. The initial investment plan was estimated at R$1,275 thousand, to be used in the modernization, expansion and updating of the equipment, software and database network, and the total used in 2017 was R$250 thousand. Some projects will have their finalization in 2018, with the forecast of approximately R$591 thousand.

The Work Plan is drafted with the participation of the Controllers, Legal Consultants, Billing and Control, Financial, Materials, Projects and Research, Human Resources and Supplementary Health Managers.

The year 2017 began with **203** projects. In order to meet the specific updating or improvement requirements of the systems, **169** projects were not approved in the initial work plan.

Sixty-four **(64)** projects of the Work Plan were completed, of which **96** are projects to support the administrative areas of FFM and are part of the bi-monthly monitoring.

Ten **(10)** projects were completed for the HCFMUSP and **58** for the institutional computerization area. Thirty-four (**34)** projects were canceled.

6) The **MATERIAIS / Compras Nacionais** (Materials / National Purchases) Department manages and executes procurement/contracting activities for works and renovations, equipment, services in general and various materials, always committed to obtaining the best negotiations for the FM/HCFMUSP System.

In the year 2017, a volume of acquisitions/ contracting in the amount of R$384.2 million, corresponding to 3,195 processes, transited through the Department of Materials/National Purchases. The economy generated in 2017 was R$13.5 million, representing 3.53 %, based on the lower original value presented by the suppliers or the reference value in relation to that actually traded/contracted by FFM.

The **MATERIAIS / Importação** (Materials/ Import) Department manages and executes the activities of imports of equipment, inputs in general, subscriptions to periodicals, registrations in courses and congresses and other services, for the whole FM/HCFMUSP System, Specific Projects and the Units under Management in the modalities of agreement and OSS, in a volume, in 2017, of USD4.2 million, equivalent to 233 cases.

The economy generated in 2017 was USD 395.5 thousand, representing 8.6%, based on the lower original value presented by the suppliers or the reference value in relation to that actually traded/contracted by FFM.

7) In 2017, the **PROJETOS E PESQUISAS** (Projects and Research) Management continued with feasibility studies, implementation and follow-up of contracts/agreements signed with public and private national and international agencies, regarding the activities proposed by its partners, in

particular the FM/HCFMUSP System. It also carried out the analysis of all non-operating accounts of the Institution. In December 2017, **519** social assistance projects were active in the FFM; Health care; Research; Production of scientific and technological knowledge; Academics; Health policies; and Institutional, which benefit, directly or indirectly, the population. Of these, **148 projects** stand out, subsidized with national and international public and private resources, and **371 clinical studies** sponsored by the pharmaceutical industry.

In 2017, the **COMUNICAÇÃO** (Communication) Area of **Project and Research** Management kept the FFM **Intranet** permanently updated, an interdepartmental communication channel, which provides users with ease and agility in searching for information, documents, reports, manuals, forms, access to Integrated systems and various other resources.

On the FFM **Website**, it implemented the Internal Search System, facilitating the users' navigation. It continued the actions of updating the FFM **Relationship Manual**, seeking to facilitate FFM interaction with FM/HCFMUSP System users. In the **FFM Journal**, as a member of the Editorial Board, it took part in the preparation and distribution of 2017's six editions.

It is also the responsibility of the **Projects and Research** area to receive, analyze and forward to the competent areas all suggestions, requests, comments and criticisms received by FFM through the **"Contact FFM"** channel available on the Website. In 2017, 1,173 messages were received, the majority of which were linked to the Human Resources Selection area, and health−related issues addressed to HCFMUSP.

In 2017, the initial collection of 79 **Book Club** titles, a collaborative library created in 2015, by initiative of the **Projects and Research** area, increased to 469. The titles are available to FFM employees in the coexistence area of the Cláudia Building, headquarters of the FFM, and deal with topics such as fiction, romance, Brazilian literature, children's and youth literature, motivation, self-help, among others.

8) The **RECURSOS HUMANOS** (Human Resources) Department managed **12,550** employees in 2016, among FFM's direct administration personnel, FFM personnel in the service of the FM/HCFMUSP System, ancillary staff and personnel allocated to specific projects to assist the population. Of this total, **368** employees are allocated in their direct administration, aimed at supporting hundreds of social programs of the entity, as well as for the assistance activities, development of comprehensive health care and care for SUS patients, developed by the remaining professionals. The latter are hired on a full or part−time basis, seeking to stimulate the production of work in didactic, care and research areas, through material support and adequate remuneration.

Following a strategy of valorization of its direct collaborators, it continued the Training and Training Program of personnel (**3,570** class hours), which, in order to develop team skills, culminated in the improvement of the Foundation's final results. At the same time, it developed recruitment and selection of the entire FM/HCFMUSP System, as well as new and existing projects (**2,444** vacancies), administration and payment of social benefits (**R$71** million) and salaries, Payment of approximately **R$682** million, in addition to coordinating the process of hiring, layoffs, licenses, vacations, positions and salaries, basic food basket, meal voucher, transportation voucher, among others. In 2017, for example, about **191** thousand basic baskets were offered to employees throughout the FM/HCFMUSP System, from the various projects, in addition to the retirees.

9) The **SAÚDE SUPLEMENTAR** (Supplementary Health) Department, responsible for the integration of the relationship between the HCFMUSP Complex, Health Plan Operators and other service providers, performs internal and external actions to achieve the objectives of this segment of the HCFMUSP Complex.

In 2017, it reinforced its actions of:

a) Integration with the Institutes, HCFMUSP Superintendence and Market;

b) Active participation in the strategic planning of HCFMUSP and several Committees that make up the HCFMUSP management model;

c) Continuous action to strengthen the relationship with health plan operators and optimize operational flows, as well as broaden the scope of the business;

d) Active participation in forums, where current and future scenarios are discussed regarding sustainability and sustainability of the Supplementary Health (ABRANGE, ANAHP, IESS, UNIDAS, others);

e) Expansion of services contracted and improvement of the values and conditions of remuneration of hospital expenses and medical fees are permanent actions of the Department, as well as the improvement of contractual rules and the evolution of prices paid for services;

f) Negotiation and contracting for exceptional care, which do not make up the regular accreditation portfolio (operators, health plans or products);

g) Constant development of the operational data system − Multimed, with the conception of integration and standardization for all Institutes of the FM/HCFMUSP System;

h) Registration of all transactions related to collection of marketing and handling fees;

i) Participation in the Electronic Receipt Request (SR-e) project, with the Multimed system feeding, so that all the mandatory information and collection records of private calls are executed through this system;

j) Collaboration with the Institutes of HCFMUSP in the format, structuring, pricing and dissemination of services;

k) Execution of negotiation of Contracts with several Operators, to comply with the directives of the law 13.003/14;

l) Implementation of a new Electronic Health Information Exchange Standard − TISS Standard, established by the ANS, to ensure the quality of information from the Supplementary Health System;

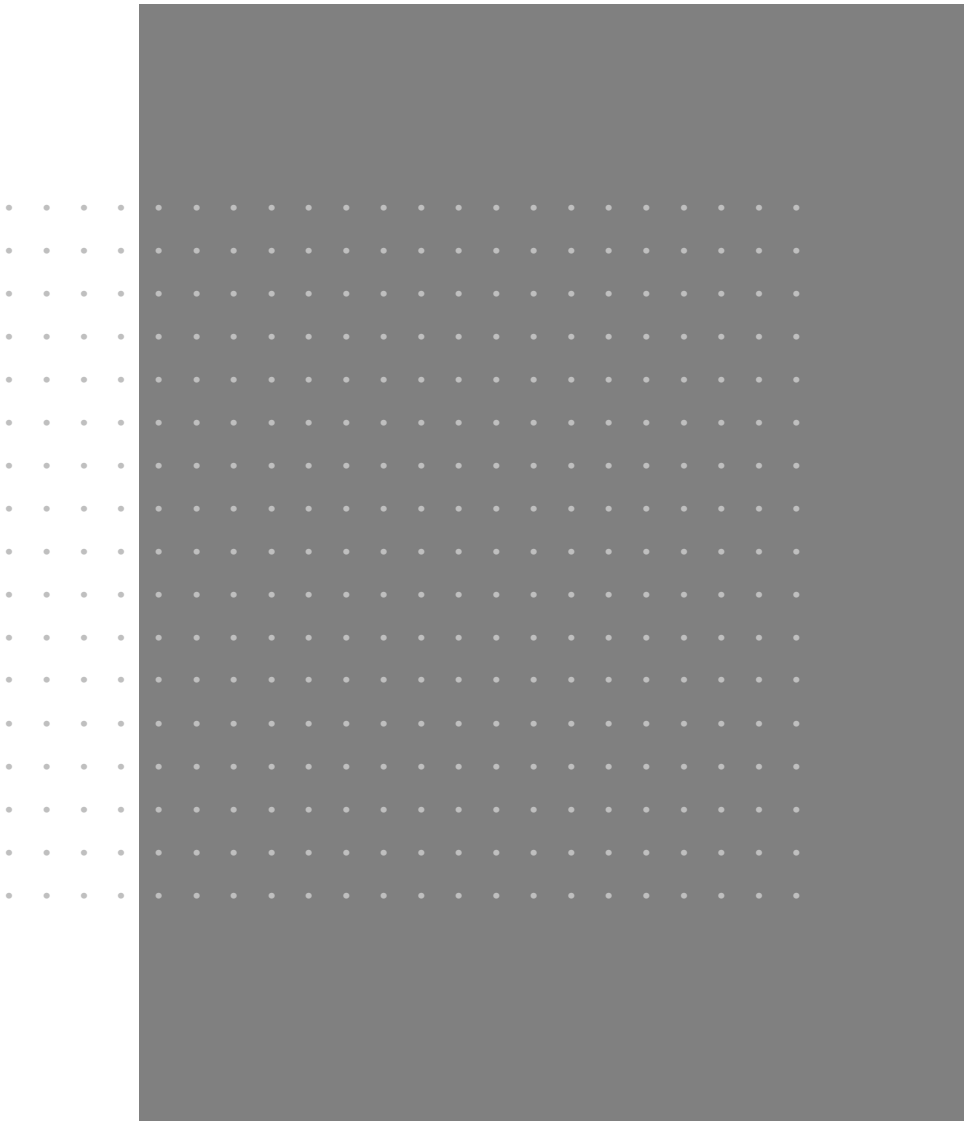
m) Intensification of the financial recovery of invoices, for presentation of accounts that have lost the contract term for billing;

n) Commercial negotiation to deal with glosses;

o) Intervention with the operators for financial recovery of unrealized payments;

p) Internal training to Institutes, Call Center and Billing and Control Department, with the objective of improving the administrative routines regarding the market rules pertaining to authorizations, eligibility, implantable medical devices and billing.

2017 FINANCIAL BALANCE SHEET SUMMARY



2017 FINANCIAL BALANCE SHEET SUMMARY

RESOURCES ORIGINS	2017	%	2016	%	2015	%
Total Revenues	**1,187.9**	**100 %**	**1,159.5**	**100 %**	**1,183.4**	**100%**
Government Resources	**894.0**	**75.3 %**	**888.7**	**76.7 %**	**919.9**	**77.8 %**
Health care – SUS	287.5	24.2 %	277.2	23.9 %	276.6	23.4 %
Subsidies	606.5	51.1 %	611.5	52.8 %	643.3	54.4 %
Health care – Health plans and Payer	**119.9**	**10.1 %**	**111.0**	**9.6 %**	**87.7**	**7.4 %**
Donations	**14.5**	**1.2 %**	**9.9**	**0.8 %**	**26.0**	**2.2 %**
Private cooperation – national and international	**11.3**	**1.0 %**	**8.1**	**0.7 %**	**6.6**	**0.6 %**
Provision of service and/or sale of products	**58.1**	**4.9 %**	**61.3**	**5.3 %**	**65.3**	**5.5 %**
Other revenues	**90.1**	**7.5 %**	**80.5**	**6.9 %**	**77.9**	**6.5 %**

RESOURCES APPLICATIONS	2017	%	2016	%	2015	%
Total Expenses	**1,191.6**	**100 %**	**1,127.5**	**100 %**	**1,174.9**	**100 %**
Personal	672.9	56.5 %	677.2	60.0 %	704.9	56.1 %
Operational expenses	492.5	41.3 %	423.4	37.6 %	427.5	39.3 %
Acquisition of goods	26.2	2.2 %	26.9	2.4 %	42.5	4.6 %

Abbreviations

AAAFMUSP	Associação dos Antigos Alunos da Faculdade de Medicina da USP
AAAOC	Associação Atlética Acadêmica Oswaldo Cruz da Faculdade de Medicina da USP
AIHs	Autorização de Internações Hospitalares
ANVISA	Agência Nacional de Vigilância Sanitária
AMA	Assistência Médica Ambulatorial da Secretaria Municipal da Saúde de São Paulo
APAC	Autorização de Procedimentos Ambulatoriais
CAOC	Centro Acadêmico Oswaldo Cruz da Faculdade de Medicina da Universidade de São Paulo
CAPPesq	Comissão de Ética para análise de Projetos e Pesquisas do HCFMUSP
CARF	*Commission on Accreditation of Rehabilitation Facilities*
CDI	Centro de Diagnóstico por Imagem
CEBAS	Certificado de Entidade Beneficente de Assistência Social
CEREDIC	Centro de Referência em Distúrbios Cognitivos do Hospital das Clínicas da FMUSP
CFM	Conselho Federal de Medicina
CG	Centro de Gerenciamento
CNES	Cadastro Nacional de Estabelecimento de Saúde
CNPq	Conselho Nacional de Desenvolvimento Científico e Tecnológico
CONDEPHAAT	Conselho de Defesa do Patrimônio Histórico Arqueológico, Artístico e Turístico
CONPRESP	Conselho Municipal de Preservação do Patrimônio Histórico, Cultural e Ambiental da Cidade de São Paulo
CONEP	Comissão Nacional de Ética em Pesquisa
CPC	Centro de Pesquisa Clínica
CREMESP	Conselho Regional de Medicina do Estado de São Paulo
DEPAVE	Departamento de Parques e Áreas Verdes
DOU	Diário Oficial da União
DRS	Departamento Regional de Saúde
DST	Doenças Sexualmente Transmissíveis
FAPESP	Fundação de Amparo à Pesquisa no Estado de São Paulo
FFM	Fundação Faculdade de Medicina
FMCSV	Fundação Maria Cecília Souto Vidigal
FMUSP	Faculdade de Medicina da Universidade de São Paulo
Fundação CASA	Fundação Centro de Atendimento Socioeducativo ao Adolescente
GREA	Grupo Interdisciplinar de Estudos de Álcool e Drogas do IPq do HCFMUSP
HAC	Hospital Auxiliar de Cotoxó do HCFMUSP
HAS	Hospital Auxiliar de Suzano do HCFMUSP
HCFMUSP	Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo
Hemominas	Fundação Centro de Hematologia e Hemoterapia de Minas Gerais
Hemope	Fundação Hemope (Pernambuco)
Hemorio	Instituto Estadual de Hematologia Arthur de Siqueira Cavalcanti (Rio de Janeiro)
ICB−USP	Instituto de Ciências Biomédicas da Universidade de São Paulo
ICESP	Instituto do Câncer do Estado de São Paulo “Octavio Frias de Oliveira”
ICHC	Instituto Central do HCFMUSP
ICr	Instituto da Criança do HCFMUSP
IMRea	Instituto de Medicina Física e Reabilitação do HCFMUSP
IMT−USP	Instituto de Medicina Tropical de São Paulo, Universidade de São Paulo
InCor	Instituto do Coração do HCFMUSP
IOT	Instituto de Ortopedia e Traumatologia do HCFMUSP
IPq	Instituto de Psiquiatria do HCFMUSP
IRLM	Instituto de Reabilitação Lucy Montoro
ITACI	Instituto de Tratamento do Câncer Infantil do Instituto da Criança do HCFMUSP
LIM	Laboratório de Investigação Médica do HCFMUSP
LIM 05	Laboratório de Poluição Atmosférica e Experimental
LIM 09	Laboratório de Pneumologia

LIM 14	Laboratório de Investigação em Patologia Hepática
LIM 18	Laboratório de Carboidratos e Radioimunoensaios
LIM 25	Laboratório de Endocrinologia Celular e Molecular
LIM 40	Laboratório de Imuno−Hematologia e Hematologia Forense
LIM 46	Laboratório de Parasitologia Médica
LIM 56	Laboratório de Investigação em Dermatologia e Imunodeficiências
LIM 60	Laboratório de Imunologia Clínica e Alergia
MS	Ministério da Saúde
NARSAD	The Brain and Behavior Research Fund
NIH	National Institutes of Health
NUFOR	Programa de Psiquiatria Forense e Psicologia Jurídica do Inst. de Psiquiatria do HCFMUSP
NUPENS/USP	Núcleo de Pesquisas Epidemiológicas em Nutrição e Saúde da Universidade de São Paulo
OMS	Organização Mundial de Saúde
ONA	Organização Nacional de Acreditação
OPAS	Organização Pan Americana de Saúde
OPM	Órteses, Próteses e Meios de locomoção
PAMB	Prédio dos Ambulatórios do HCFMUSP
PN−DST−Aids	Programa Nacional de DST−Aids do Ministério da Saúde
PNUD	Programa das Nações Unidas para o Desenvolvimento
PRONAS/PCD	Programa Nacional de Apoio à Atenção da Saúde da Pessoa com Deficiência
PRONON	Programa Nacional de Apoio à Atenção Oncológica
SCOL	Sistema de Consulta *On Line* (disponível no site da FFM – www.ffm.br)
SEHAB	Secretaria Municipal de Habitação
SEE-SP	Secretaria de Estado da Educação de São Paulo
SEMPLA	Secretaria Municipal de Planejamento, Orçamento e Gestão
Senad	Secretaria Nacional de Políticas sobre Drogas do Ministério da Justiça
SES-SP	Secretaria de Estado da Saúde de São Paulo
SME-SP	Secretaria Municipal da Educação – Prefeitura de São Paulo
SMS-SP	Secretaria Municipal da Saúde – Prefeitura de São Paulo
SMADS-SP	Secretaria Municipal de Assistência e Desenvolvimento Social – Prefeitura de São Paulo
SUS	Sistema Único de Saúde
SVMA	Secretaria Municipal do Verde e Meio Ambiente
SVOC	Serviço de Verificação de Óbitos da Capital − USP
UBS	Unidades Básicas de Saúde da Secretaria Municipal da Saúde de São Paulo
UEA	Universidade do Estado do Amazonas
UNESCO	Organização das Nações Unidas para a Educação, a Ciência e a Cultura
UNODC	Escritório das Nações Unidas contra Drogas e Crime
USP	Universidade de São Paulo

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The information contained in this report has been provided by all areas of the FFM and by the Project Coordinators described.

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