

Department of Parasitology

**Academic Project
2023-2027**

SUMMARY

INITIAL CONSIDERATIONS	3
I. SUMMARY OF THE DEPARTMENT'S SELF-ASSESSMENT REGARDING THE ACADEMIC PROJECT OF THE PREVIOUS CYCLE (PERIOD 2019-2023)	4
I.1. Teaching (Undergraduate and Postgraduate)	4
I.2. Research and Innovation	10
I.3. Culture and Outreach	11
I.4. Management	14
II. MISSION, VISION, AND VALUES	15
III. AIMS AND GOALS OF THE DEPARTMENT	15
III.1. Teaching Aims and Goals (Undergraduate and Graduate)	16
III.2. Research and Innovation Aims and Goals	17
III.3. Culture and Outreach Aims and Goals	18
III.4. Inclusion and Belonging Aims and Goals	19
III.5. Management Aims and Goals	19
III.6. Other Department Aims	20
IV. EXPLANATION OF INDICATORS FOR PERFORMANCE MONITORING	24
IV.1. Teaching (Undergraduate and Graduate)	24
IV.2. Research and Innovation	25
IV.3. Culture and Outreach	26
IV.4. Inclusion and Belonging	27
IV.5. Management	27
V. MAIN CHALLENGES EXPECTED FOR THE PERIOD	28
VII. CURRENT AND EXPECTED FUNCTIONAL FRAMEWORK	31
VIII. ADDITIONAL INFORMATION NOT COVERED IN PREVIOUS ITEMS	34
VIII.1. Definition of the Expected Profile of Faculty Members in the Department of Parasitology at Various Career Levels	34
VIII.2. Indicators of Faculty Profile Activities (Quantitative and Qualitative)	36

INITIAL CONSIDERATIONS

Alignment with the Mission, Vision, and Values (MVV) of the University of São Paulo

The Academic Project (AP) of the Department of Parasitology presented below is in line with the **Mission, Vision, and Values (MVV)** of the University of São Paulo (USP). In it, we detail how the Department promotes the generation and dissemination of knowledge, directly contributing to social, scientific, and cultural development, in accordance with USP's mission. Furthermore, the AP seeks to strengthen the Department's position in the national and international scenario and foster innovation in research, aligning with the University's vision of excellence. The commitment to ethics, inclusion, diversity, and sustainability, evidenced in all the Department's actions, reflects the full incorporation of USP's institutional values in teaching, research, and outreach activities.

Current Panorama of the Department of Parasitology at ICB-USP

The Department of Parasitology was created in 1970, from the merger of four Departments belonging to the Faculties of Medicine, Dentistry, Pharmaceutical Sciences, and Veterinary Medicine and Animal Science. These Departments, especially the Department of Parasitology of the Faculty of Medicine, enjoyed great national and international prestige at the time. The Department's origins date back to 1913, when the Faculty of Medicine hired Emile Brumpt, a renowned French parasitologist and author of the main reference book in the area at the time, "Précis de Parasitologie". Brumpt was succeeded by Lauro Travassos and, in the 1930s, by Samuel Barnsley Pessôa. With his charisma and prestige, Samuel Pessôa trained a new generation of researchers, such as Pedreira de Freitas, Mauro Pereira Barreto, Antônio Dácio Franco do Amaral, Maria e Leônidas Deane, Luiz Rey, Ruth e Victor Nussenzweig, Luiz Hildebrando Pereira da Silva, and Erney Plessmann Camargo.

After a period of decline between 1964 and 1970, the Department of Parasitology, now based at ICB-USP and under the leadership of Professor Erney Camargo, regained its prominent national position from the late 1980s onwards. The incorporation of specialists in biochemistry, molecular biology, immunology, and epidemiology into the faculty contributed to the expansion and diversification of research lines.

Currently, the Department has 17 active faculty members with diverse backgrounds and 1 retired professor who continues to work within the scope of USP's Senior Professor Program. The faculty members have solid academic and scientific training, manage laboratories with extensive external funding to USP, and more than half of them receive a CNPq scientific productivity scholarship. The technical-administrative staff consists of 17 employees, distributed as 3 at basic level, 11 at intermediate level, and 3 at higher level.

The Department hosts and coordinates a graduate program evaluated with a grade 7 by CAPES, with 72 graduate students currently enrolled. In addition, there are currently 17 researchers conducting postdoctoral internships. All students and postdocs have access to short-term visits for research and assistance at advanced centers in the Amazon, focused on parasitic and tropical diseases.

I. SUMMARY OF THE DEPARTMENT'S SELF-ASSESSMENT REGARDING THE ACADEMIC PROJECT OF THE PREVIOUS CYCLE (PERIOD 2019-2023)

I.1. Teaching (Undergraduate and Postgraduate)

I. UNDERGRADUATE

Over the past four years, the Department of Parasitology has actively worked to fulfill the objectives and goals established for undergraduate teaching. It is important to highlight that we carried out structural reforms in our teaching areas, including amphitheatres and laboratories, completed at the beginning of the first semester of 2024. These changes aim to provide more comfort and improve the quality of teaching for students. Below, we present a critical and detailed analysis of the progress achieved in each of the established goals.

1. Meet the specific learning demands of each course

Progress: The Department successfully met learning demands effectively, adjusting course content according to the specific needs of each program. This includes the two courses based at the Institute of Biomedical Sciences, which are Fundamental Health Sciences and Biomedical Sciences, as well as other courses from different units, such as Pharmaceutical Sciences, Nursing, Medicine, Veterinary Medicine, and Obstetrics. To meet the needs of some courses, the syllabi of certain disciplines were restructured, such as BMP0103, BMP0104, BMP0215, BMP0216, and BMP0301. Interdepartmental collaboration was intensified to ensure that programs are aligned with the student profile. An example of this is the discipline BMP0216 (Bioinformatics and Genomics), which became interdepartmental (042-0310) in partnership with the Department of Microbiology. It should be noted that the implementation of curricularized outreach activities (AEX) in undergraduate courses, resulting from teamwork coordinated by the ICB's Undergraduate and Culture and Outreach commissions, is being carried out gradually, with the full willingness and preparation of our Department's faculty.

2. Offer high-quality teaching, integrating traditional content and frontier knowledge

Progress: Annually, concepts and information in different disciplines were updated, incorporating recent discoveries in Parasitology and related sciences. These updates of frontier knowledge are made

possible by the participation of Department faculty in conferences and the publication of their research, which contributes to the constant renewal of the content taught. In this regard, interdisciplinary, inter-semester, and mirror disciplines with postgraduate studies have stood out in including these updates.

3. Increase the number of elective courses

Progress: The Department maintained the number of elective courses in the four-year period but plans to increase this offering in the next evaluation cycle. This increase should reflect the demand of different courses, which may also be influenced by the incorporation of the curricularization of Culture and Outreach in the University's various courses, emphasizing the courses of the Institute of Biomedical Sciences.

4. Encourage the creation of Inter-semester and internationally collaborative courses

Progress: In the Department, we offer three inter-semester courses: Practical Course in Basic Molecular Biology in the Human Parasite *Plasmodium falciparum* Model (BMP0105), Contemporary Aspects of Parasitology (BMP0104), and Proteomics (BMP0225). These courses have been well received by students in recent years, evidenced by the increase in the number of enrollments. We believe that offering practical courses outside São Paulo, such as BMP0300 - Health-Disease Process in the Brazilian Amazon (ICB V) and the Practical Course in Molecular Diagnosis for Malaria in the Juruá Valley (BMP0270), can attract new student cohorts and thus increase interest in new courses to be created.

5. Create criteria and methods for departmental course evaluation

Progress: An evaluation methodology was implemented using forms generated by the ICB and analyzed by FUVEST, covering most of the courses offered. Although we have not yet achieved 100% coverage, the evaluation system has proven effective in identifying areas for improvement and implementing necessary changes.

6. Motivate students to participate in extracurricular activities

Progress: Student participation in scientific initiation, and in culture and outreach programs grew significantly. During this period, the Department attracted students from the Unified Scholarship Program (PUB), which supports and trains undergraduate students in the three areas of Teaching, Culture and Outreach, and Research. In addition, there was participation in the USP Undergraduate Teaching Incentive Program (PEEG) and supervision of Postgraduate students from the Teaching

Improvement Program (PAE), originating from various laboratories in the Department and included in several courses offered.

7. Encourage the availability of video lectures

Progress: Most courses already provide recorded lectures, or in PDF format, which have been used as support for in-person teaching and for content review.

8. Encourage the use of digital platforms in all courses

Progress: The use of Moodle and other digital platforms was adopted by approximately 70% of our Department's courses, facilitating access to didactic material and promoting active learning methods.

9. Support the production of didactic material in different media

Progress: A faculty member of the Department coordinated the second edition of the book "Parasitologia Contemporânea" (editor: Marcelo Urbano Ferreira, Editora Guanabara Koogan), published in 2023, with the co-authorship of Ariel Mariano Silber, Daniel Youssef Bargieri, and other faculty members (retired) from the Department and other Brazilian institutions. Since its first edition in 2012, the textbook has become a reference for undergraduate courses in parasitology, being widely adopted within and outside USP. In addition, various audiovisual resources were developed, such as image banks and educational videos, to enhance teaching and learning. Also noteworthy is the creation of a valuable didactic material, the Parasite Image Database (http://bioinfovirus.icb.usp.br/parasite_db/), coordinated by Professor Arthur Gruber, in partnership with Culture and Outreach. This portal offers hundreds of parasite images, consolidating itself as a relevant pedagogical tool. Additionally, innovations such as the former virtual slide collection, the availability of tests and questionnaires on platforms like Moodle, as well as seminars, videos, and infographics produced by the students themselves, were implemented. Questionnaires were also prepared by the students, promoting greater engagement. All this material has been used in the Department's courses and in other institutions, strengthening knowledge sharing and academic integration.

10. Stimulate faculty participation in undergraduate teaching management activities

Progress: Faculty participation in academic committees and discussion forums increased. In addition, several professors participated in pedagogical update courses, which has contributed to the improvement of teaching quality.

CONCLUSION: Overall, the Department of Parasitology has made significant progress in achieving the stipulated goals for undergraduate teaching. Although some goals have not yet been fully met, the

progress has been substantial, and the strategies adopted have proven effective in improving student education. The renovation of the didactic areas was very important for our Department, as it will provide a structure capable of accommodating different teaching and learning activities for our students. The continuation of these efforts will be essential to consolidate achievements and overcome remaining challenges.

II. GRADUATE STUDIES

The main objective of the Department's Graduate Program is to train masters and doctors with academic excellence, characterized by critical capacity, multidisciplinary scientific knowledge, professional leadership, and aptitude for nucleating new research groups, producing high-quality scientific output, teaching ability, training new professionals, and dedicated to disseminating knowledge to society.

To achieve this objective, we proposed 10 goals for the 2019-2023 period and developed an activity plan to reach them, as well as indicators for evaluating their fulfillment. Despite the negative effects caused by the COVID-19 pandemic, which imposed strict limitations on both the execution of experiments and production of results, and on teaching, the Department of Parasitology, through intense work, sought to achieve all the goals established in its graduate academic project. Below, we present a detailed analysis of performance in relation to each proposed goal:

1. Maintenance of the CAPES excellence level of the Program

Progress: The program maintained its excellence level at CAPES, reflecting efforts to uphold the high quality of teaching and research developed.

2. Inclusion of new highly qualified advisors

Progress: The program's advisor staff experienced a 20% reduction in the last five years due to the retirement of several faculty members. During the same period, a new faculty member was hired by the Department of Parasitology and incorporated into the advisor staff. Furthermore, the Program included three new advisors with excellent academic and scientific qualifications from other ICB-USP Departments and other institutions. This inclusion was important to expand current research lines, bringing new perspectives to the program.

3. Development of new research lines with national and international projection

Progress: As mentioned in the previous item, the program incorporated new advisors, enabling the inclusion of new research lines (e.g., mathematical modeling applied to the epidemiology of parasitic

diseases), some of which have international funding. The consolidation of these research lines will be fundamental for training up-to-date professionals and for the advancement of knowledge in the field of Parasitology.

4. Training of master's and PhD students with critical capacity and comprehensive technical-scientific knowledge

Progress: As in previous periods, the program trained highly qualified masters and PhD students (41 masters and 36 PhD), with an emphasis on critical capacity and technical-scientific mastery. To this end, we encourage our advisors to regularly offer courses updated with the state-of-the-art in different topics of Parasitology, and we funded both the participation of our students in scientific meetings in Brazil and abroad, and the visit of researchers to participate in examination boards and present seminars. During the COVID-19 pandemic, when in-person activities were interrupted, we encouraged our advisors to offer their courses in a remote format, as well as student participation in online scientific meetings. Indeed, our program organized two online editions of the Annual Graduate Meeting during the pandemic, to ensure our students an environment for scientific exchange and discussion with program advisors and invited researchers. The event resumed in-person format at the end of the restrictions imposed by the pandemic. The high participation of students and/or alumni in the program's publications (annual average of 58.4% during the period) and the successful placement of alumni in prestigious academic or corporate institutions attest that this objective was achieved (<https://sites.usp.br/bmp/pos-graduacao-egressos/>).

5. Promotion of collaborations with graduate programs throughout Brazil

Progress: We encourage the participation of our advisors in collaborative projects with other graduate programs in Brazil, fostering an exchange of experiences aimed at both deepening topics relevant to Parasitology in our country and the exchange of students and faculty. For example, some of our advisors participate in National Institutes of Science and Technology funded by CNPq. These collaborations expanded the reach and influence of our graduate program.

6. Improvement of the program's internationalization

Progress: Our program stands out in terms of internationalization and has made progress in this regard, consolidating previously established collaborations and establishing new collaborations with prominent research groups in various countries. Additionally, we have a high proportion of foreign students (annual average of 25.6%), whose retention in the program is favored by an online entrance exam in English, the offering of courses in English, and the two dual-degree agreements we have (University of Münster and University of Groningen). The COVID-19 pandemic imposed serious

limitations on increasing the participation of foreign professors and students in the program, but pre-pandemic numbers are gradually being resumed.

7. Implementation of evaluation processes for graduate courses

Progress: For now, we have not yet adopted a unified evaluation system for graduate courses. As an initial step in the process, we encourage all faculty members to submit forms for course evaluation by students, as we believe this practice helps identify areas for improvement and implement pedagogical enhancements. Most courses are currently undergoing revisions based on student evaluations.

8. Incentive for offering new courses

Progress: Twelve new courses were introduced, addressing the most current and relevant topics in the field of Parasitology. Furthermore, in a joint action with the ICB-USP Graduate Studies Commission (CPG), courses for preparing our students for the Teaching Improvement Program (PAE) are in the final phase of implementation. We also emphasize that the inclusion of courses taught in English was particularly successful. Of the 19 courses offered during the period, 12 (63%) were offered in English, which is more than double the established goal of 30%.

9. Encourage students' pedagogical training

Progress: The program encourages the participation of all its students in the PAE, which prepares them for the challenges of contemporary Parasitology teaching. Pedagogical workshops and seminars were also offered in the Department and at ICB during the analyzed period (for example, the course on “Theatrical techniques applied to the presentation of seminars, classes, and academic competitions”). As mentioned in item 8, courses for preparing our students for the PAE are in the final phase of implementation. Additionally, we encouraged and supported the realization of the 1st Summer Course of the Graduate Program in Pathogen-Host Relationship Biology, which was coordinated by our students and widely supported by the advisors and Department head.

10. Planning and implementation of a professional master's course

Progress: The professional master's degree was approved at all levels (<https://ww3.icb.usp.br/pos/mestrado-profissional/>). For this, several interdepartmental discussions were necessary to elaborate the course plan, which began its first selection process this year (<https://ww3.icb.usp.br/pos/edital/>). One of our advisors participates in the coordinating committee of this master's program, attesting to our participation and support for the initiative. This course is expected to increase the placement of graduates in the job market and consequently its impact on society.

CONCLUSION: *The Department of Parasitology achieved significant progress in fulfilling the graduate goals stipulated for the 2019-2023 period. Initiatives to maintain and elevate the level of academic excellence, promote internationalization, develop new research lines, and prepare students for future challenges were largely successful, despite all restrictions imposed by the COVID-19 pandemic. Although some aspects can still be improved, the overall balance is extremely positive, indicating a solid path for the coming years.*

I.2. Research and Innovation

The last four-year period was marked by the COVID-19 pandemic, with adverse consequences for the funding and conduct of research. Nevertheless, the Department undertook significant efforts to achieve the recommended goals for its research activities, including an investment in confronting the pandemic. Below, we present a detailed evaluation of performance in relation to each of these goals:

1. Increase in Scientific Publications in High-Impact Journals

Progress: The Department managed to increase scientific output, with an average of 6 articles per faculty member per year in international journals, often high-impact, surpassing the previous four-year period's average of almost 5 articles per year per faculty member (Web of Science data). The publications reflected not only the quality of the research but also the faculty's engagement in disseminating the knowledge produced, further involving the participation of students and/or alumni from our graduate program in more than half of the publications during the period.

2. Increase in Fundraising

Progress: There was continuous fundraising from both national and international agencies. Department members also managed to establish partnerships with the private sector, resulting in robust funding for research projects. Continuous funding was essential for the maintenance and expansion of research activities.

3. Increase in the Number of Postdoctoral Fellowships and Young Researchers

Progress: The number of postdocs in the Department increased from 22 in the 2015-2019 period to 26 in the 2019-2023 four-year period. Additionally, the Department had 3 collaborating researchers during the four-year period, which highlights the relevance and quality of the research conducted, attracting new scientists, with a 12% growth relative to the established goal. The attraction of new talents was facilitated by continuous support from scholarship programs and the strengthening of emerging research lines, including research related to SARS-CoV-2.

4. Increase in Scientific Partnerships with Groups in Brazil and Abroad

Progress: The Department continues to have national and international partnerships, evidenced by the active exchange of graduate students and postdocs and joint projects. These partnerships form multidisciplinary and multicentric projects, expanding the impact of the research conducted and optimizing resources. The existence of specialized infrastructure for handling/testing rodents with NB-3 type infectious agents led to significant national exposure for the Department, specifically during the COVID-19 pandemic.

5. Consolidation of Internationalization

Progress: Internationalization was successfully consolidated, highlighted by participation in dual-degree programs and the involvement of foreign researchers in collaborative projects with Great Britain, the USA, and various European countries. The number of joint publications with international groups also grew, reinforcing the Department's global impact.

6. Increase in Technological Innovation from Research

Progress: There were significant advances in technological innovation, with the generation of new products, such as diagnostic assays and software applied to Parasitology. Additionally, the Department registered three national and one international patent, demonstrating the translational potential of the research conducted.

7. Increase in Faculty Participation in Research-Related Activities

Progress: Faculty participation in research-related activities, such as organizing scientific events, participating in editorial boards, and advisory committees, remained high. This engagement expanded the Department's visibility and strengthened its position as a research leader in the field of Parasitology. Faculty members also engage in research teaching, as evidenced by the number of scientific initiation students.

CONCLUSION: *Overall, the Department met or exceeded most of the goals established for its research activities in the last four-year period, despite the adverse effects of the pandemic, such as reduced laboratory activities and temporary closure of research laboratories. The increase in scientific output, fundraising, internationalization, and technological innovation were strong points, reflecting the commitment of faculty and researchers to academic excellence. There is still room for expansion, especially concerning the broadening of partnerships and innovation, but the results obtained so far are promising for future years.*

I.3. Culture and Outreach

Over the past four years, the Department undertook several initiatives to achieve the Culture and Outreach targets established in alignment with the ICB-USP academic project. Below, we present a detailed analysis of performance in relation to each of these targets:

1. Recognition and encouragement of Culture and Outreach activities

Progress: There was a significant effort to recognize existing Culture and Outreach activities and to encourage the creation of new initiatives, especially with the implementation—by legal mandate—of the curricularization of outreach in undergraduate education. This required redirecting efforts, particularly over the last approximately eighteen months, toward implementing credit-bearing outreach activities (AEX), many of which are still in planning and rollout, through a joint effort between the Undergraduate Committee and the Culture and Outreach Committee. As a result, the planning and execution of outreach activities came to be valued more as a core mission activity, encouraging more faculty members to contribute by offering them.

2. Offering Culture and Outreach activities

Progress: The Department expanded its Culture and Outreach offerings, establishing an effective connection between internally generated knowledge and society. One example is the allocation of seats for participants in the USP 60+ program within regular undergraduate courses—an initiative that began during the COVID-19 pandemic period. In addition, socially relevant projects are a distinctive feature of the Department of Parasitology. These projects include *Projeto Rondon Itapeva*; the Advanced Research Center in the Amazon (ICB V); the National Institute of Epidemiology of the Western Amazon in Rondônia; the International Center of Excellence for Research on Amazon Malaria; and the Experimental Immunoparasitology Laboratory in Acre. Such outreach activities primarily aim at health education and serving populations in Brazil's Northern region.

3. Participation in activities coordinated by PRCEU and CCEX

Progress: The Department participated actively in activities coordinated by PRCEU and in those organized by the ICB-USP CCEX, with approximately 30 events in which Department faculty served as coordinators or participants, along with active participation by staff members and by undergraduate and/or graduate students.

4. Training of professors and professionals

Progress: Given the impact of social isolation in 2020 and 2021, as well as the focus on implementing AEX in 2023 and 2024 as mentioned above, many activities such as courses and events were not offered as planned. Even so, three outreach courses (six offerings) and one continuing education course (one offering) were delivered remotely during the pandemic period, including a substantial increase in reach, raising participant numbers and including those outside São Paulo who typically lack

the logistical or financial means to travel to attend a course. In total, including courses before and after the pandemic period, more than twenty courses were offered. A particularly important example is the Laboratory Animal Science course (“Laboratory Animal Science – Workshop in Animal Facility Management”), which is in high demand and is highly rated in training technicians for this essential activity for research and teaching. In summary, all these activities had a positive impact, as evidenced by participant feedback.

5. Extracurricular scientific-cultural inclusion activities

Progress: The Department implemented extracurricular activities designed to promote scientific-cultural inclusion of students at all levels. These activities, which include guided tours, lectures, and workshops, were well received and helped spark interest in science among a broader audience. Department faculty have also supervised interns in Culture and Outreach projects through the Unified Scholarship Program (approximately 20 supervisions). Finally, many laboratory visits were also offered during the period to graduate-level students who had not yet entered graduate school, so that they could get to know laboratories and gain research experience. Because a mechanism to record these visits is still being implemented at the Institute, we do not have the exact number of these activities for the evaluated period, but we know that such visits are very common not only in the Department but throughout the Institute.

6. Expansion of the use of new media for scientific communication

Progress: Efforts were made to expand the use of new electronic media for scientific communication and dissemination. The Department, through the centralized work of the Institute of Biomedical Sciences’ communications office, increased its presence on social media and other digital platforms, facilitating public access to high-quality scientific information. Some faculty members also participated directly in podcasts, interviews, and other digital events, as mentioned below, as well as in the development of blogs and other products for new media.

7. Development of Didactic and Educational Material

Progress: Department faculty have contributed significantly to Culture and Outreach by creating and making available physical and digital materials aimed at teaching and research in parasitology. One of the most relevant examples is the Parasite Image Database portal (http://bioinfovir.icb.usp.br/parasite_db/), coordinated by Professor Arthur Gruber, which is still in an experimental phase. This high-resolution digital parasite image bank includes an interface and metadata available in three languages (English, Spanish, and Portuguese). Another important example is the second edition of the book *Parasitologia Contemporânea*, coordinated by Professor Marcelo Urbano Ferreira and coauthored by Ariel Mariano Silber and Daniel Youssef Bargieri, published by

Guanabara Koogan in 2023. This book has been widely adopted in several parasitology courses, both at USP and at other institutions. These materials have been fundamental to teaching and outreach, expanding their reach and impact in educational activities.

8. Dissemination of scientific knowledge

Progress: The Department made significant progress in disseminating scientific knowledge through interviews, articles in newspapers and general-audience magazines, and publications in electronic media. Of particular note in these efforts are more than 100 media appearances, traditional or otherwise. These efforts helped increase the visibility of Parasitology and its relevance to society.

CONCLUSION: *Overall, the Department of Parasitology met or exceeded most of the targets established for Culture and Outreach in the last four-year period. Recognition of outreach activities, expansion of the offering of courses and events, and the use of new media were strengths, demonstrating the Department's commitment to disseminating knowledge and fostering scientific inclusion. Integration among teaching, research, and outreach activities was also consolidated, creating a more dynamic academic environment more closely connected to societal demands. Although there are still areas to be developed, the results achieved so far are highly positive and promising for the coming years.*

I.4. Management

Over the past four years, with the aim of improving teaching and research infrastructure, we carried out a series of strategic renovations funded by ICB budgetary resources, FAPESP institutional overhead (*reserva técnica institucional*), and CAPES contributions through the Graduate Program housed in our Department. Among the main improvements were the creation of three new classrooms, all equipped with state-of-the-art multimedia technology, and the construction of a small amphitheater dedicated to thesis defenses, with capacity for 30 people, as well as an adjacent room dedicated to examination committee meetings.

The Samuel Pessoa Amphitheater underwent a comprehensive renovation that expanded its capacity to 90 seats and modernized its audio and projection systems, improving the quality of the academic events held there. A videoconferencing room was also created, equipped with advanced technology to conduct thesis defenses in a remote format, in line with new demands for interactivity and distance education.

A server room was installed, equipped with four high-performance units for data processing and storage for various Institute research groups, which has significantly optimized management and analysis of large volumes of scientific information.

In the teaching annex, all practical-class laboratories were renovated, with replacement of benches, upgrading of ventilation systems, and modernization of equipment. The lecture halls in the Teaching Annex also underwent improvements and were adapted to current safety and accessibility standards, including installation of access ramps and reserved seating for people with disabilities.

In addition, continuous investment was made in the maintenance of the animal facility, which is essential for the development of a large portion of the graduate projects carried out by our students. To strengthen internal communication, Department leadership held periodic meetings with staff to gather demands, present the challenges faced by the Department, and discuss possible solutions, as well as the Institute's strategic policies. Leadership also actively encouraged staff participation in training courses, promoting ongoing skills development.

These initiatives not only improved the Department's infrastructure but also reinforced the commitment to modernization, safety, and excellence in teaching and research.

CONCLUSION: *In summary, the actions implemented over the past four years represent a significant advance in modernizing and adapting the Department's infrastructure, ensuring better conditions for teaching, research, and academic collaboration. The renovations and technological innovations not only improved the quality of physical spaces and available resources, but also met accessibility and safety requirements and prepared the Department for future challenges. Investment in staff training and strengthening of internal communication consolidate efficient management and a commitment to academic excellence, creating an environment conducive to the continued growth of our scientific and educational activities.*

II. MISSION, VISION, AND VALUES

IMission: To produce and disseminate knowledge in Parasitology and related fields, training professionals and researchers prepared to work in teaching and research, both in Brazil and abroad, as well as in the development of public policies for the control and elimination of parasitic diseases.

Vision: To be recognized as a center of excellence in Parasitology research and teaching, ranking among the leading national and international centers, serving as a reference in training highly qualified human resources and in promoting scientific innovation.

Values: To promote merit, competence, and dedication to work, guided by ethics, integrity, transparency, and respect for the individual, society, and the environment.

III. AIMS AND GOALS OF THE DEPARTMENT

The Department of Parasitology seeks to consolidate itself as a reference in teaching, research, and outreach, providing excellent undergraduate training focused on Parasitology and related fields, incorporating the most recent scientific advances through a multidisciplinary approach. Committed to this purpose, the Department encourages students' active participation in research activities and aims to train highly qualified master's and doctoral graduates through the Graduate Program in Biology of the Pathogen–Host Relationship. With the goal of expanding its activities and generating academic and social impact, the Department sets forth below objectives and targets in the areas of teaching, research, culture and outreach, inclusion and belonging, as well as management, reinforcing the integration between scientific knowledge and society.

III.1. Teaching Aims and Goals (Undergraduate and Graduate)

UNDERGRADUATE

1. Meet the specific learning demands of each program in which the Department of Parasitology offers courses;
2. Provide high-quality teaching, integrating traditional content with cutting-edge scientific knowledge generated by the Department's different research lines;
3. Increase by at least 20% the portfolio of elective courses in different areas specific to and related to Parasitology;
4. Encourage the creation and/or maintenance of multidisciplinary inter-semester courses, preferably in English, with participation of international faculty;
5. Establish criteria and methods for departmental evaluation of undergraduate courses by students;
6. Motivate undergraduate students to engage in different activities, encouraging their participation in University institutional programs across modalities (Undergraduate Education, Research, and Culture and Outreach);
7. Encourage the creation of open-enrollment courses on digital platforms such as Coursera;
8. Encourage making lectures available as digital videos;
9. Encourage the use of the Moodle platform or other digital platforms in all Department courses;
10. Support the production of teaching materials in the form of books, films, image banks, and other types of media;
11. Encourage faculty to participate in undergraduate teaching activities and/or management, such as academic committees, teaching discussion forums, pedagogical professional development courses, among others.

GRADUATE

1. Maintain the Program's CAPES level of excellence;
2. Support the inclusion, within the advisor pool, of researchers with high scientific and academic qualifications from national and/or international institutions;
3. Encourage the development of new independent research lines with national and international visibility and/or that address the Brazilian Indicators for the United Nations Sustainable Development Goals (SDGs);
4. Actively support the training of master's and doctoral students with critical thinking skills and broad, multidisciplinary technical-scientific expertise;
5. Intensify collaboration with other graduate programs in Brazil;
Intensify internationalization by expanding collaborations with research groups of scientific excellence in other countries and increasing dual-degree (cotutelle/dual-degree) opportunities for students;
6. Implement a unified process for evaluating graduate courses, aiming at their progressive improvement;
7. Encourage regular offering of existing courses and promote the creation of new scientific and/or pedagogical courses;
8. Encourage students' pedagogical training by motivating participation in the PAE and in the summer course;
9. Contribute to consolidating the professional master's program involving the Departments of Parasitology and Microbiology, expanding the areas in which graduates from these Departments can work in society;
10. Publicize and encourage the participation of students and advisors in inclusion and belonging activities, fostering the welcoming of diversity and well-being, contributing to graduate program excellence;
11. Initiate the process of implementing affirmative actions in the admissions process in order to broaden student access to the Program;
12. Discuss broadly with the Program's advisors the new Graduate Education model proposed by PRPG-USP, assessing the feasibility of implementing changes in our Program.

III.2. Research and Innovation Aims and Goals

1. Preserve or expand scientific output through publication in journals with recognized editorial boards, spanning diverse research areas;
2. Strengthen and diversify funding acquisition, including increased support from international agencies and the private sector;

3. Expand the number of postdoctoral positions and early-career researchers, promoting greater integration of emerging talent;
4. Expand scientific partnerships with national and international research groups, fostering interdisciplinary collaboration;
5. Consolidate and expand the internationalization process, strengthening the institution's global presence;
6. Promote research-based technological innovation, encouraging knowledge transfer into practical solutions;
7. Promote research, development, and innovation aimed at public policies for the control and elimination of parasitic diseases;
8. Strengthen faculty participation in complementary research-related activities, such as organizing scientific events, serving on editorial boards, scientific societies, and committees that evaluate national and international projects.

III.3. Culture and Outreach Aims and Goals

1. Recognize and promote existing Culture and Outreach activities in the Department, as well as encourage the creation of and participation by faculty, students, and staff in new initiatives in this area;
2. Establish a direct connection between the Department's actions and society through Culture and Outreach activities that support knowledge dissemination, teacher training, and the generation of public benefits across different outreach modalities;
3. Participate actively in activities coordinated by PRCEU, as well as in internal initiatives promoted by the ICB-USP CCEX;
4. Offer professional development programs for teachers—especially in the public school system—and other professionals, contributing to the continued qualification of these groups;
5. Provide outreach activities for undergraduate students with potential for curricularization (AEX) and promote extracurricular scientific-cultural inclusion activities for students at all levels, including those in the USP 60+ program;
6. Encourage the use of new electronic media for scientific communication and dissemination, expanding the reach of the Department's initiatives;
7. Encourage the production of teaching and educational materials that can contribute to science education and science popularization;
8. Foster science communication through interviews, articles in widely circulated newspapers and magazines, books, and publications on electronic platforms, promoting scientific knowledge in a way

that is accessible to society. To this end, we intend to rely on institutional support to develop a concrete science communication plan with support from specialized professionals.

III.4. Inclusion and Belonging Aims and Goals

1. Establish inclusion and belonging guidelines within the Department, seeking to articulate cross-cutting actions among the different Committees, as well as with other Departments and units at ICB-USP;
2. Increase community awareness and engagement regarding inclusion and belonging issues;
3. Offer and/or encourage participation by students, faculty, and staff in inclusion and belonging activities of the Department and/or ICB-USP, such as activities that prevent distress, enhance well-being, and promote physical and mental health; activities that address and seek to reduce or eliminate barriers faced by people with disabilities; educational and training activities on diversity; and recreational activities that promote equitable integration among members;
4. Provide support and seek resources for underrepresented groups in partnership with the ICB-USP CIP and USP's Office of the Provost for Inclusion and Belonging (PRIP).

III.5. Management Aims and Goals

1. Ensure the infrastructure and human resources necessary to carry out, with excellence, activities in teaching, research, cultural outreach, and university management;
2. Strengthen and expand collaborations among Department members and with national and international researchers, promoting strategic partnerships with public and private institutions and the business sector;
3. Develop new research lines in areas of prominence in the national and international landscape, while maintaining ongoing support for research already well established within the Department;
4. Implement actions aimed at attracting early-career researchers and visiting professors, contributing to the Department's academic and scientific growth;
5. Promote more effective integration among research, teaching, and outreach, with the goal of increasing interaction with society and the productive sector and generating significant social and economic impacts;
6. Foster a collaborative and healthy work environment that encourages collegiality and the holistic development of faculty, staff, and students, maximizing individual and collective potential;

7. Increase the perception of fairness, inclusion, and sense of belonging among all members of the Department community, promoting a more equitable and welcoming environment for students, faculty, and technical staff.

III.6. Other Department Aims

The Department has established as strategic targets the expansion and strengthening of its nationalization and internationalization activities, as well as the consolidation of its specialized laboratories and centers of research excellence. These objectives seek to broaden the visibility and impact of research both nationally and internationally by promoting high-level collaborations with other institutions. It is important to note that these targets aim to fully align with the United Nations Sustainable Development Goals (SDGs) and with the principles of the DORA Initiative (San Francisco Declaration on Research Assessment). We emphasize that USP is a signatory to both initiatives.

I) ALIGNMENT WITH THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDGs) UN

To align the Department of Parasitology with the Sustainable Development Goals (SDGs), we seek to integrate several targets of our academic project with actions that directly promote sustainable development. In this context, we highlight the following initiatives:

1. Quality education (SDG 4)

Department goal: Provide high-quality teaching by integrating traditional content with cutting-edge scientific knowledge.

Alignment with the SDGs: Continue to strengthen the creation of interdisciplinary courses, especially those focused on public health and parasitology, promoting inclusive and equitable education for undergraduate and graduate students. To assess the effectiveness of this target, we intend to develop metrics capable of comprehensively evaluating student learning.

2. Good health and well-being (SDG 3)

Department goal: Strengthen our research lines and consolidate new lines that address the Brazilian indicators for the SDGs. We note that this particular target coincides with SDG target 3.3, which addresses the control of diseases such as malaria, neglected tropical diseases (including Chagas disease and leishmaniasis), and waterborne diseases.

Alignment with the SDGs: Several faculty members in our Department conduct research related to several of these diseases and have much to contribute to this topic. To this end, we intend to expand research in areas such as neglected diseases, malaria, leishmaniasis, and other parasitic diseases that affect vulnerable populations. In this regard, collaborations with international and national research

centers, such as the CEPID, are important to drive technological innovations in the diagnosis and treatment of these diseases.

3. Partnerships for the Goals (SDG 17)

Department goal: Expand scientific partnerships with national and international research groups.

Alignment with the SDGs: Strengthen existing collaborations with other institutions in Brazil and abroad to share knowledge and develop solutions that contribute to the eradication of tropical diseases, promoting global well-being. In addition, given the Department's tradition of fieldwork, we will also seek to establish more equitable partnerships with the populations most affected by the parasitic diseases we study, with the aim of better understanding the reality of each community and trying to develop, jointly, solutions that can bring greater benefits to these communities.

4. Reduced inequalities (SDG 10)

Department goal: Implement affirmative actions in admissions processes. More broadly, promote a culture of inclusion and belonging to also foster diversity in positions that do not depend on institutional admissions processes (for example, postdoctoral researchers).

Alignment with the SDGs: Ensure equal access to education, training, and research opportunities for students from underrepresented groups, especially those from regions affected by parasitic diseases, through affirmative action programs and scholarships.

5. Decent work and economic growth (SDG 8)

Department goal: Contribute to consolidating the professional master's program.

Alignment with the SDGs: Offer programs that train students for the labor market, particularly in public health and biotechnology, contributing to the development of health solutions and technological innovation that generate jobs and sustainable economic growth.

6. Climate action (SDG 13)

Department goal: Promote research-based technological innovation, encouraging the transfer of knowledge to practical solutions.

Alignment with the SDGs: Encourage research on the impacts of climate change on the spread of parasitic diseases and zoonoses, promoting the development of mitigation and adaptation strategies, especially in the most affected regions. In particular, the Department expects to strengthen research on disease vectors, which has become worldwide a fundamental aspect of studies on the impacts of climate change on public health.

These goals show how the Department's teaching, research, and innovation activities can be aligned with the SDGs, maximizing social impact and contributing to sustainable development.

II) IMPLEMENTATION OF STRATEGIES FOR RESEARCH ASSESSMENT FOLLOWING THE PRINCIPLES OF THE DORA INITIATIVE (San Francisco Declaration on Research Assessment)

In alignment with the academic project of the Institute of Biomedical Sciences and USP, the Department of Parasitology proposes to adopt the principles of the San Francisco Declaration on Research Assessment (DORA). This approach involves overcoming traditional metrics and valuing the scientific content of works, ensuring a fairer assessment of the impact and relevance of research. The implementation of DORA will include reviewing assessment policies to reduce dependence on the Impact Factor, conducting training sessions, promoting qualitative evaluations, implementing transparent practices, diversifying success criteria, continuous monitoring of assessment practices, and active engagement in national and international discussions on research assessment. These changes, which seek to cultivate an academic environment that truly values the quality of scientific contributions over quantity, will be implemented gradually during the next period. As these changes are still being discussed in various national and international bodies for academic performance assessment, we anticipate the coexistence of a mixed system in which quantitative parameters will also carry weight in departmental decisions. However, our goal is to progressively reduce the weight of these parameters in favor of qualitative evaluations that value the description of scientific discoveries, technological developments, and their relevance.

III) NATIONALIZATION

The nationalization goal seeks to expand collaboration with other universities and research centers throughout Brazil, promoting the exchange of knowledge, resources, and talent. To this end, the Department intends to intensify participation in national research networks and consortia, in addition to encouraging the mobility of faculty, researchers, and students in interinstitutional cooperation programs. It is also the Department's objective to increase the dissemination of research conducted in forums and scientific events of national scope, aiming to position itself as a reference in its areas of operation.

IV) INTERNATIONALIZATION

The Department of Parasitology seeks to strengthen its internationalization through seven main objectives: offering more courses in English, increasing the number of foreign graduate students and postdoctoral fellows, increasing the number of graduate students in dual-degree programs, encouraging training internships abroad for graduate students and postdoctoral fellows, expanding collaborations with international groups, securing funding from international agencies, and increasing publications with co-authorship by foreign researchers. To achieve these targets, the Department aims to consolidate and expand partnerships with universities and research centers, attracting researchers

from around the world for joint projects and promoting the academic exchange of faculty and students. The Department's outputs will be promoted through the publication of articles in journals with selective and appropriate editorial policies, as well as through the promotion, organization, and participation in international congresses (hosted in Brazil and abroad), disseminating the Department's scientific contributions on a global scale.

V) IMPLEMENTATION OF SPECIALIZED LABORATORIES

By the end of 2024, the Department of Parasitology at ICB-USP plans to complete the installation of the "Glycoproteomics & Structural Mass Spectrometry Facility", under the supervision of Prof. Giuseppe Palmisano, with an investment of 10 million reais via FAPESP. This laboratory, open to the scientific community, will be pioneering in Latin America with the LC-MS/MS Orbitrap Ascend platform, driving research in glycoproteomics and structural proteomics. The Facility will represent a hub of innovation, attracting talent and fostering collaborations, positioning USP as a leader in scientific investigations and training new scientists. In addition, the future implementation of specialized laboratories in the Department of Parasitology will strengthen research capacity in public health, promoting advances in the study of parasites and their diseases, and contributing to the creation of more effective control and prevention strategies. Our objectives for the next period include the creation of a laboratory dedicated to insect manipulation, an essential infrastructure to drive research and practical applications in various areas of knowledge. This laboratory will provide a robust foundation for advanced studies in genetics, physiology, ecology, and evolution, using insects as crucial biological models. Insects, being vectors of diseases affecting humans, animals, and plants, will be studied in a controlled environment to develop and improve methods for controlling and eradicating diseases such as malaria, dengue, Zika, and Chikungunya. In addition, the laboratory will prepare future researchers, equipping them with the necessary tools for scientific and academic practice, contributing to technical and scientific careers. The laboratory will also have a significant impact on public health, environmental conservation, and technological innovation.

VI) OPPORTUNITIES FOR IMPLEMENTATION OF FUTURE PROJECTS IN CONCEPTUAL PHASE

New research nuclei and centers of excellence, such as FAPESP's CEPID, are fundamental to the Department's strategy, acting as hubs of scientific and technological innovation with the potential to attract major funding and impact society. The goal is to integrate research with knowledge transfer to the productive sector, promoting innovation and the training of qualified human resources. The Department seeks in the future to consolidate these nuclei as national and international references, contributing to scientific and technological advancement in Brazil and worldwide. Under the leadership

of Professor Ariel M. Silber, two proposals are being developed that are still in conceptual phases and aim to position the Department of Parasitology as a protagonist in large-scale projects:

1. Metabolism Research Center (CoMeta): The proposal will aim to establish a center with state-of-the-art infrastructure for metabolism studies, integrating four outstanding research groups. These groups will bring a concentration of expertise at the forefront of knowledge in metabolism, an area that permeates all biological phenomena. The main objective of CoMeta will be to drive research on metabolism at the University of São Paulo. CoMeta will become a multi-unit center, involving faculty from ICB (Department of Parasitology), IQ (Department of Biochemistry), and the School of Medicine at USP.

2. CEPID Project: With the anticipation of a future call for pre-proposal submission, there is the intention to develop a CEPID proposal to be hosted at our Institute. The central theme of the proposal will be "Neglected parasitic diseases: from molecule to patient." The project will involve a broad network of national and international collaborations, including partnerships with various USP units, the Butantan Institute, and CNPEM (Campinas).

By aligning with these targets, the Department aims not only to improve the quality and scope of its activities, but also to contribute decisively to scientific and technological advancement, both in Brazil and globally.

IV. EXPLANATION OF INDICATORS FOR PERFORMANCE MONITORING

The Department will adopt a series of specific indicators to continuously evaluate performance, ensuring monitoring and fulfillment of the established targets. These indicators will serve as essential tools to measure progress, identify improvement opportunities, and support strategic decisions, guaranteeing that operational and strategic objectives are achieved effectively. The use of these indicators will enable a detailed analysis of both the efficiency and quality of activities carried out, promoting a continuous cycle of improvement and innovation within the Department. In accordance with the Institute's criteria, the Department will consider satisfactory fulfillment of targets as the achievement of at least 70% of the objectives defined in this AP.

IV.1. Teaching (Undergraduate and Graduate)

UNDERGRADUATE

1. Faculty participation in courses offered by the Department;

2. Creation and offering of new courses—the Department expects to increase by 10% the number of elective courses effectively offered to undergraduate students in the next four-year period, including at least one multidisciplinary interdepartmental or inter-unit course;
3. Implement a student evaluation methodology that reaches 100% of undergraduate courses taught;
4. Maintain the acquisition of undergraduate research fellowships and other modalities and supervision of undergraduate students, depending on the availability of fellowships for each supervision modality;
5. Supervision of students in course completion projects;
6. Creation of teaching materials and innovative teaching methods, measured by subjective and objective metrics—it is expected that at least 30% of the Department's courses use digital tools and active learning methods, and that the respective syllabi formally include this information;
7. Participation in undergraduate teaching management bodies/committees.

GRADUATE

1. Include in the advisor pool new researchers internal and external to the Department with proven national and international projection and/or that address the Brazilian Indicators for the United Nations Sustainable Development Goals (SDGs);
2. Restore pre-pandemic numbers for dual-degree initiatives;
3. Encourage the advisor body to regularly offer a varied portfolio of courses and to create new scientific and/or pedagogical courses;
4. Implement a unified evaluation process for graduate courses;
5. Improve graduate students' pedagogical training by offering pedagogical courses in partnership with other ICB-USP graduate programs, by encouraging participation in the PAE, and by supporting the organization of summer courses;
6. Encourage regular offering of the summer course, assisting and supervising graduate students in its organization;
7. Assist in implementing the Professional Master's program in "Innovation in Diagnostics and Development of Drugs and Medications";
8. Publicize and encourage the participation of students and advisors in inclusion and belonging activities, such as seminars and recreational activities;
9. Change the admissions exam notice to include affirmative actions;
10. Promote discussions on implementing the new Graduate Education model proposed by PRPG-USP.

IV.2. Research and Innovation

1. In alignment with the principles of the San Francisco Declaration on Research Assessment (DORA), of which USP and ICB are signatories, the Department of Parasitology will adopt an approach that, in addition to considering quantitative parameters, values the quality of scientific production. In this context, the Department will emphasize the generation of innovative and relevant knowledge within its field of operation. In qualitative evaluations, the development of concepts and content with potential to significantly impact parasitology nationally and internationally will be highlighted. These criteria will be combined with those still used by funding agencies and other evaluation bodies, such as the publication of articles in scientific journals with rigorous editorial quality and peer review;
2. Acquisition of resources from national and international scientific funding agencies;
3. Acquisition of resources in projects from private funding agencies and/or resulting from partnerships with productive sector institutions;
4. Participation in large-scale and/or multidisciplinary projects;
5. Establishment of scientific partnerships with research groups from other states or countries;
6. Supervision of postdoctoral fellowships—it is expected that the number of postdoctoral fellows will increase by at least 10% in the next four-year period, depending on fellowship availability from funding agencies;
7. Supervision of undergraduate research students and technical training;
8. Publication of books or book chapters related to the research field;
9. Participation in national and international scientific events with presentation of works or as invited speaker;
10. Organization of national and international scientific events;
11. Participation in scientific societies, advisory committees of agencies and companies that promote science funding, at national and international levels;
12. Technological innovation with generation of products and services applicable to the productive sector or that contribute to implementing public health policies;
13. Production of documents and recommendations that promote public health policies (diagnostic, treatment, prevention, and control protocols for communicable diseases);
14. National and international patents.

IV.3. Culture and Outreach

1. Quantitative and qualitative reach of activities (target audience);
2. Social, scientific, and educational relevance of activities;
3. Impact (effectiveness and contribution of activities);

4. Innovation (new approaches, paradigms, ideas, and attitudes);
5. Integration with teaching and research;
6. Number of courses offered and events with Department member participation;
7. Number and types of teaching materials and scientific dissemination created, interviews, and articles;
8. Number and type of outreach activities offered to society;
9. Participation in scientific society leadership;
10. Participation in scientific journal editorial boards;
11. Participation in technical advisory groups to research funding bodies (FAPESP, CNPq, international agencies, among others);
12. Technical advisory to national and international organizations (WHO, PAHO, Ministry of Health).

IV.4. Inclusion and Belonging

1. Disseminate audiovisual materials and the offering of lectures, courses, workshops, and discussion circles promoted by the ICB-USP CIP;
2. Encourage the inclusion of affirmative actions by the Department's different committees;
3. Maintain constant dissemination of the Community Support Committee (CAC);
4. Evaluate the participation of students, faculty, and staff from the Department in CIP activities based on participation records (attendance lists)—it is expected that at least 10% of attendees are Department members;
5. Encourage Department members to participate in at least one of the activities offered annually.

IV.5. Management

1) **ACADEMIC PRODUCTIVITY:** Can be quantified by publications in indexed journals, along with the number of citations received by the Department's publications.

Note: To adapt the "Academic Productivity" indicator to the San Francisco Declaration on Research Assessment (DORA), we intend to use an approach that values the quality and substantial impact of publications, rather than focusing strictly on the number of publications and citations (See more details in V. MAIN CHALLENGES EXPECTED FOR THE PERIOD).

2) **EFFICIENCY IN RESOURCE ACQUISITION:** Research performance evaluation can also be measured by success in obtaining funding through funding agencies and by the number of research projects funded both internally and externally. This "proxy," although insufficient, indicates the ability to structure

competitive research proposals before the evaluation systems of different local and international funding agencies.

3) **STUDENT PERFORMANCE:** Metrics to evaluate the Department's educational effectiveness will include pass and fail rates in offered courses, as well as undergraduate and graduate completion rates within the expected timeframe.

4) **TEACHING QUALITY:** Academic performance metrics will include faculty performance evaluation results conducted by students and student satisfaction rates with courses offered by the Department.

5) **ENGAGEMENT AND COLLABORATION:** Collaboration indicators include the number of formalized interdepartmental collaborations and partnerships with external institutions through Cooperation Agreements/Research Agreements.

6) **PROFESSIONAL DEVELOPMENT:** Professional development indicators include the number of faculty and staff participating in development programs, in addition to the availability of workshops, seminars, and training courses.

7) **INNOVATION AND IMPACT:** Indicators include the number of registered patents and licensed technologies, as well as projects or research with practical application in the community or industry.

8) **SOCIAL IMPACT AND OUTREACH:** Indicators include the number of outreach projects carried out and the impact of these activities on the local community. In addition, we will use the site <https://policyprofiles.sagepub.com/login> to locate, in a still limited way, citations of our articles made by organizations/documents dealing with public policies.

These indicators will help provide a holistic view of the Department's performance, allowing for continuous adjustments and improvements in various areas of operation.

V. MAIN CHALLENGES EXPECTED FOR THE PERIOD

The Department values the development of an Academic Project and the implementation of periodic evaluations as a significant advancement. However, the realization of the proposed targets faces important challenges, especially related to maintaining the human resources framework and physical infrastructure, requiring specific and strategic actions.

I) HIRING A FACULTY MEMBER FOR TEACHING IN BIOMEDICAL SCIENCES

For the first time in the history of the Institute of Biomedical Sciences at USP (ICB-USP), a unique faculty position will be created, which will operate simultaneously in the Departments of Microbiology, Immunology, and Parasitology, with the objective of developing innovative educational strategies for the Biomedicine program. This initiative aims to meet contemporary demands for teaching modernization and greater integration with social needs, taking advantage of the solid research base

and existing infrastructure. The selected faculty member will be responsible for developing and implementing interactive and practical teaching methods that have significant social impact, in addition to promoting culture and outreach projects that integrate students with the community.

The hiring will face challenges such as integration between Departments with distinct academic cultures, resistance to changing traditional methodologies, and the need to train faculty in new pedagogical practices. It will also be necessary to evaluate the impact of these changes, establish external collaborations, develop new evaluation systems, actively seek funding, and maintain a long-term commitment to educational innovation and interdepartmental collaboration, ensuring lasting benefits for teaching and research in Biomedicine at ICB-USP.

II) PHYSICAL INFRASTRUCTURE

Regarding the Department's physical infrastructure, it is important to highlight that most improvements and maintenance carried out so far have been enabled by resources obtained through research projects. This reality, although common in many higher education institutions, ends up overloading researchers, who need to allocate a significant portion of their funds to structural issues, diverting focus from investments in research and innovation.

Given this, the Department emphasizes the urgent need for the University to fully assume these responsibilities, especially regarding fundamental renovations, such as those of the restrooms, which are essential for maintaining a healthy environment. In addition, it is crucial to ensure the maintenance and expansion of safety equipment, which are vital for the protection of everyone involved in academic and administrative activities.

Additionally, improvements in infrastructure networks, including electrical systems, water supply, and communication systems, are indispensable to meet the Department's growing demands and ensure the smooth functioning of daily activities. These actions not only promote a safe environment but also preserve the dignity of those who study and work in the Department, reinforcing the institutional commitment to the quality of teaching, research, and outreach.

III) COSTS OF SCIENTIFIC PUBLICATION

The transformation in the business model of major international scientific publishers, driven by the increasing adoption of the open access system, has generated profound and widely felt impacts on the academic community. This transition, which aims to democratize access to scientific knowledge, has brought with it a significant increase in publication costs. In many cases, fees charged for publication in high-impact journals can reach exorbitant values, up to US\$ 5,000.00 per article.

This new financial landscape has forced researchers to reassess the allocation of resources from the FAPESP Technical Reserve of their projects. Traditionally, these resources were used to fund research

infrastructure improvements, such as equipment acquisition, laboratory maintenance, and other essential needs that ensure the continuity and quality of scientific investigations. However, with the growing pressure to ensure visibility and dissemination of research results, these funds have been channeled almost exclusively to cover publication costs.

This situation worsens in a context of significant reduction in resources provided by CAPES, which has been one of the main research funding bodies in Brazil. The reduction in CAPES's budget directly affects researchers' ability to sustain their activities and compete internationally, which in turn compromises the country's scientific advancement.

In addition, the absence of a robust institutional policy that provides financial support for open access publication costs further aggravates the scenario. Researchers face a growing demand for greater scientific output, driven by academic productivity metrics that value publications in high-impact journals. However, without adequate financial support, many are forced to make difficult choices, sacrificing infrastructure investments and consequently compromising the long-term quality of their research.

Given this situation, it becomes imperative that the University of São Paulo develop strategies to mitigate the negative effects of this transition in the scientific publication model. This includes creating institutional policies that financially support researchers, ensuring that the pursuit of international visibility does not compromise the quality and continuity of research activities.

IV) IMPROVEMENT OF THE WORK ENVIRONMENT AND COEXISTENCE

The alarming increase in depression and suicide cases in society, which is worryingly reflected in the university environment as well, has become a matter of great importance and concern. This scenario requires a robust and multidimensional response, capable of addressing the complex emotional and psychological needs of the academic community. In this context, the Institute has demonstrated a firm commitment to the well-being of its members, implementing essential measures such as the creation of the Community Support Committee (CAC), the Human Rights Committee (CDH), and the Ombudsperson.

These initiatives represent significant steps in building a more welcoming and safe environment, offering support channels and listening for everyone facing emotional difficulties and vulnerability situations. The Department not only supports these institutional initiatives but also recognizes the need to complement them with local actions that reinforce dignity, promote harmonious coexistence, and foster empathy among community members.

With this objective, periodic fraternization events have been encouraged and organized, such as the afternoon scientific tea/coffee. These activities, organized alternately by the Department leadership

and by graduate students and postdoctoral fellows, aim to create informal spaces where dialogue and interaction can flourish naturally and relaxedly. These meetings not only strengthen bonds among participants but also provide a moment of relief and relaxation, essential for mental health.

In addition, the creation and maintenance of common coexistence areas within the Institute have proven crucial to stimulate these encounters and promote a welcoming environment and exchange of experiences. Such spaces are conceived as true refuges within the academic routine, where everyone can feel comfortable sharing their experiences, strengthen support networks, and thus contribute to building a more cohesive and resilient community.

We firmly believe that these actions, when integrated into a broader institutional policy and supported by all community members, can play a vital role in preventing serious emotional problems, creating a culture of care and mutual respect that benefits everyone.

O Departamento valoriza a elaboração de um Projeto Acadêmico e a implementação de avaliações periódicas como um avanço significativo. Contudo, a concretização das metas propostas enfrenta desafios importantes, especialmente relacionados à manutenção do quadro de recursos humanos e à infraestrutura física, exigindo ações específicas e estratégicas.

VII. CURRENT AND EXPECTED FUNCTIONAL FRAMEWORK

The replacement of the Faculty Body and Technical-Administrative Staff is essential to ensure the sustainability and future of the Department of Parasitology. Over the past twelve years, there has been a 26% reduction in the number of faculty members (**Table 1**). Currently, the Department has 17 active faculty members and one senior professor, who continue to contribute significantly to academic activities. However, the average age of the faculty is 54 years, and in the next five years, five professors will be eligible for retirement. This situation requires the urgent implementation of an effective replacement policy, which ensures the maintenance of excellence in teaching, the continuity of academic-scientific production, and the diversification of the Department's research lines.

In this context, in the short term, the hiring of two new faculty members is underway, in addition to a third one, who, as mentioned earlier, will work in the teaching area, with activities distributed among the Departments of Immunology, Microbiology, and Parasitology. We consider that a framework of at least 20 faculty members would be ideal for the full development of the Department's teaching and research activities.

Table 1. Evolution of the Number of Faculty Members in the Department of Parasitology (Period: 2012-2024).

Year	Number of Professors	% reduction/increase	Observations
2024	17	-26,1	(6) full-professors (7) associate professor (4) assistant professors
2022	19	- 17,4	(4) full-professors (10) associate professor (5) assistant professors
2014	23	-	(5) full-professors (7) associate professor (11) assistant professors
2012	23	-	(5) full-professors (6) associate professor (9) assistant professors (2) temporary assistant professors

Regarding the Technical-Administrative Staff framework, the situation is dramatically concerning. The Department currently has 17 staff members (**Table 2**), of which 3 work in administrative functions, while the others provide support to the laboratories, animal facility, insectary, and multi-user rooms of the Department. This framework has undergone a significant reduction over the past twelve years, a period in which we lost 16 collaborators, which has negatively impacted teaching and research activities, in addition to overloading the remaining employees.

The retirement forecast for the coming years is also alarming, with four employees already eligible for retirement. These employees perform crucial functions, both in technical activities in the laboratories and in didactic and administrative support. The replacement of this framework will be vital for the maintenance and improvement of the Department's activities in the coming years.

Table 2. Evolution of the Number of Staff Members in the Department of Parasitology (Period: 2012-2024).

Year	Number of employees	% of reduction	Observations
2024	17	-48,5	(3) superior (11) medium (3) basic
2022	23	- 30,3	(6) superior (12) medium (5) basic
2017 (2º PIDV)	27	- 18,9	(9) superior (13) medium (5) basic
2014 (1º PIDV)	32	- 3,0	(12) superior (13) medium (7) basic
2012	33	-	(13) superior (13) medium (7) basic

Finally, we present additional indicators related to the Department's activities in the undergraduate courses offered. Currently, our 17 faculty members teach in eleven undergraduate programs at the University of São Paulo, two of which are housed within the Institute itself. **Table 3** presents important

trends regarding the evolution of the faculty body, the staff team, the teaching workload, and the number of enrollments over the years.

Table 3. Evolution of the Number of Faculty Members, Staff, Teaching Workload, and Enrollments in Undergraduate Courses in the Department of Parasitology (2012–2024).

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of professors	20	21	23	24	24	24	24	22	22	21	19	20	17
Number of employees	35	33	32	30	28	27	26	24	24	23	23	21	17
Workload	750	720	900	1140	1185	1305	1305	1305	990	1275	1350	1200	1200
Number of enrollments	820	696	686	776	832	749	748	714	757	908	926	765	735

The data can be analyzed from different perspectives, highlighting significant changes in the Department of Parasitology between 2012 and 2024. As previously mentioned, over this twelve-year period, the faculty headcount was reduced by 26%, while the number of technical-administrative staff underwent a drastic reduction of nearly 50%.

It is important to note that the teaching workload offered in undergraduate programs increased markedly over the period. In 2012, the total number of hours was 750, rising to 1,200 hours in 2024, which represents a 60% increase. This growth reflects higher demand and/or a reorganization of the courses offered in order to meet the curricular needs of the degree programs. With respect to the number of enrollments in undergraduate courses, small fluctuations were observed over the years, with an annual average of 780 students enrolled in the courses taught by the Department.

When analyzed together, these trends have significant implications for the Department’s strategic planning. The sharp decline in the number of staff members has considerably affected administrative capacity and technical support, creating operational challenges, especially in areas that depend on specialized technical assistance, such as the practical components of undergraduate courses.

In light of this scenario, hiring new laboratory technicians is essential to ensure the continuity and quality of the Department of Parasitology’s academic and research activities. This measure aims to ensure excellence in hands-on teaching, meet the growing demand from undergraduate programs, and sustain the Department’s scientific development. In addition, hiring new professionals will enable more efficient resource management and the implementation of innovations in teaching, which are necessary to address the challenges imposed by the reduction in technical staff.

VIII. ADDITIONAL INFORMATION NOT COVERED IN PREVIOUS ITEMS

VIII.1. Definition of the Expected Profile of Faculty Members in the Department of Parasitology at Various Career Levels

The Department of Parasitology is strongly focused on Research activities, with cross-cutting actions in Undergraduate and Graduate Teaching, and Culture and Outreach. Due to this, and the characteristics of its faculty body, the Department adopts RDIDP as the preferred work regime. Other work regimes such as RTC and RTP may be exceptionally considered, depending on the Department's specific interest in a faculty profile to fill some relevant gap in its areas of operation. Faculty members in the Department must stand out in the University's core activities: research, undergraduate and graduate teaching, and culture and outreach, as well as in academic management at its various levels.

The Department will use as reference values for faculty hired under RDIDP regime a minimum dedication of 20% of their workload to teaching activities (meeting the criteria established by USP itself), 10% to management and culture and outreach activities, and 20% to Research activities. For the remaining workload (50%), faculty must define the degree of individual dedication to each of these activities in their academic projects, according to each person's aptitude. The Department will consider, for evaluation purposes and in a flexible manner, the relative dedication to each of these activities, according to the academic projects presented by each faculty member and approved according to their adequacy to the Department's target profile. Faculty activity evaluation will be primarily focused on the quality of the activities performed. The present Departmental Academic Project (AP) establishes the following profiles for the different academic career levels:

Assistant Professor 1 (Professor Doutor 1)

The Department understands that this is the entry category in the academic career. The faculty member must demonstrate the ability to engage in the different career activities and begin nucleating a group. For this, they must be able to define a research line and secure resources for setting up their laboratory. In parallel, it is expected that they become accredited in a graduate program and begin supervising undergraduate research students and graduate students. The faculty member must participate in undergraduate teaching activities and courses, as well as create graduate courses and/or participate in existing ones. It is also expected that the faculty member participates in culture and outreach activities consistent with the list of targets defined in the AP.

Assistant Professor 2 (Professor Doutor 2)

In addition to the activities listed in the previous category, it is expected that the Assistant Professor 2 has begun supervising doctoral students and regularly coordinates and offers at least one graduate

course. According to their AP, the faculty member should already have obtained financial support from funding agencies, supervised fellows in one or more modalities (teaching, research, or culture and outreach), and carried out one activity in the culture and outreach area. It is also expected that the faculty member has begun management activities, through participation in departmental or institutional committees and/or as faculty representative in collegiate bodies, and has engagement in discussions and actions aimed at inclusion and belonging.

Associate Professor 1 (Professor Associado 1)

In addition to the attributions of the previous category, it is expected that the faculty member has already completed doctoral supervisions and/or postdoctoral supervision. They must also have fully consolidated a research line, with regular resource acquisition from national or international funding agencies, regular publication in scientific journals, including articles as lead author, in quantity and quality compatible with the field of operation and the profile defined in their AP. Also according to the profile of their AP, the faculty member must demonstrate regular involvement in coordinating projects, resource and fellowship acquisition in the culture and outreach area. In addition to regular activities in undergraduate and graduate teaching, it is also expected that they have a more prominent role in academic management in different institutional committees and collegiate bodies.

Associate Professor 2 (Professor Associado 2)

The faculty member must have the same attributions as Associate Professor 1, plus greater involvement in teaching activities and other cross-cutting actions in the teaching area. They must have a regular flow of graduate students and/or postdoctoral fellows whose projects result in scientific publications in high-quality international journals. They must also establish solid national and international research collaborations. According to their AP, they must have consolidated outstanding activities in teaching or culture and outreach, such as creating new courses, creating professional development courses, among others.

Associate Professor 3 (Professor Associado 3)

The faculty member must have all the attributions of the previous category, plus greater involvement in academic management activities, in leadership positions, such as coordinating institutional committees, department head or deputy head. The faculty member must also engage in larger-scale and broader projects, with acquisition of larger volumes of resources in their field of operation and representation of the institution in matters that highlight the importance of science to society. They must also maintain solid national and international collaborations.

Full Professor (Professor Titular)

The Full Professor must be an undisputed leader in their field of operation, particularly in their scientific production and recognition by peers. The faculty member at this functional level will have the same attributions as Associate Professor 3, plus: the ability to acquire larger amounts of financial resources for the institution. The activity of training undergraduate and graduate students, as well as postdoctoral fellows, and their positioning in the Brazilian and international academic scene will also be considered. Finally, previous activities in academic management as well as innovative activities and participation in public bodies or companies will be considered; leadership position in statutory and/or advisory committees of the unit and USP, and participation in unit management, especially in functions that mediate the interaction of this with the central administrative bodies of the University. In terms of teaching, it is expected that the faculty member has leadership in creating new undergraduate or graduate courses, participation in academic committees at the institutional and university level, dialogue with class entities with professional councils, and participation in the development of academic curricula for professionalizing courses. Regarding culture and outreach, it is expected that the faculty member demonstrates leadership through management activities, establishes collaborations with governmental and non-governmental organizations (NGOs), and represents the Institute in the academic environment and in society within the area.

VIII.2. Indicators of Faculty Profile Activities (Quantitative and Qualitative)

Assistant Professor 1 (Professor Doutor 1)

A) It is recommended that in the 2023-27 period, the faculty member publishes at least 5 scientific articles in indexed international journals. The publication quality will be evaluated by various parameters such as: (1) complementary experimental approaches indicating multidisciplinary; (2) participation of national/international collaborators; (3) number of citations of this production; (4) interest of industry or commerce in the generated knowledge (patents); (5) repercussion of the work in non-specialized communication vehicles and/or engagement in social networks of this production; (6) generation of data collection made available on open science platforms; (7) direct contribution to achieving the United Nations Sustainable Development Goals (SDGs); (8) influence on public policies in the health area or related; high-reach vehicles. It is expected that the faculty member dedicates 20% to research activities. (B) Faculty members, under RDIDP regime, must teach undergraduate and graduate courses independently and dedicate at least 20% of their workload to teaching activities. Faculty members under RTC regime must dedicate at least 24 hours weekly to teaching, research, and outreach; while faculty members under RTP regime must dedicate 12 hours weekly to teaching. The quality of the taught courses will be evaluated by the undergraduate and graduate committees

through learning forms with students. (C) Ability to secure resources to develop their scientific research activities. (D) Supervise undergraduate research students, undergraduate internship students, or graduate students. The scientific and human resources training will be monitored by the research and graduate committees. (E) Dedicate 10% of their time to outreach activities, which may include curricularizable ones as responsible or co-responsible, or activities aimed at inclusion and belonging. The remaining workload (50%) can be distributed according to each faculty member's aptitude and will be under evaluation as indicated in the previous items. The fulfillment of activities will be monitored by the Faculty Academic Project (PrADO).

Assistant Professor 2 (Professor Doutor 2)

The faculty member at this functional level will have the same attributions as Assistant Professor 1 in items (A), (B), (C), (D), and (E), plus supervising doctoral students, coordinating an undergraduate course, and offering a graduate course. At this stage, the faculty member must exercise leadership in publishing scientific articles in indexed journals. The quality of activities is subject to the previous parameters, and the fulfillment of activities will be monitored by PrADO.

Associate Professor 1 (Professor Associado 1)

The faculty member at this functional level will have the same attributions as Assistant Professor 2 in items (A), (B), (C), (D), and (E), plus coordinating graduate courses; having completed doctoral supervisions, demonstrating leadership in their research line or outstanding activity in teaching or culture and outreach. The quality of activities is subject to the previous parameters, and the fulfillment of activities will be monitored by PrADO.

Associate Professor 2 (Professor Associado 2)

The faculty member at this functional level will have the same attributions as Associate Professor 1 in items (A), (B), (C), (D), and (E), plus regular supervision and training of graduate students resulting in scientific publications in indexed journals, leadership in their research line with national and international insertion, or in teaching or culture and outreach or innovation activity, and supervision of postdoctoral fellows. The quality of activities is subject to the previous parameters, and the fulfillment of activities will be monitored by PrADO.

Associate Professor 3 (Professor Associado 3)

The faculty member at this functional level will have the same attributions as Associate Professor 2 in items (A), (B), (C), (D), and (E), plus a new item (F) involvement in institutional academic management activities (it is expected that the faculty member dedicates 10% of time to these activities), and the establishment of solid national and international collaborations. The quality of activities is subject to the previous parameters, and the fulfillment of activities will be monitored by PrADO.

Professor titular

The faculty member at this functional level will have the same attributions as Associate Professor 4 in items (A), (B), (C), (D), (E), and (F), plus coordinating cross-cutting and innovative actions, and projects of national or international impact. The quality of activities is subject to the previous parameters, and the fulfillment of activities will be monitored by PrADO.