



RESEARCH MANAGEMENT INDICATORS 2023 INICIB-URP

INDICADORES DE GESTIÓN EN INVESTIGACIÓN 2023 INICIB-URP

Jhony A. De La Cruz-Vargas ¹, Dante M. Quiñones-Laveriano ¹, Iván Hernández Patiño ¹

In response to emerging challenges and societal demands, Universidad Ricardo Palma has reinforced its commitment to research as a fundamental pillar of its institutional policy. Over recent years, Instituto de Investigaciones de Ciencias Biomédicas (INICIB), affiliated with the Rectorate and the Faculty of Human Medicine, has made significant progress, consolidating its contribution to the university's research development.

Research management is a key focus at the Instituto de Investigaciones de Ciencias Biomédicas of Universidad Ricardo Palma. From the Rectorate and the Vice-Rectorate for Research, clear policies are established for the development of the research system, the strengthening of productive groups, and the provision of incentives and stimuli to encourage research and promote the ongoing construction of a scientific community. It is essential to assess whether the resources allocated to research have a positive impact on the university, and to quantify and evaluate trends and evolution over time⁽¹⁾.

Recognizing research as a critical axis that drives the quality of higher education, innovation, and social commitment, this activity has been integrated into our licensing and accreditation processes, which has positively impacted our university's ranking. Research not only reflects the current state of the institution but also shapes its future, positioning it as a benchmark in the generation of intellectual property, knowledge, and human resources that impact educational, scientific, economic, and social realms⁽²⁾.

Restrepo & Zabala (2016) state that the challenge for universities is to design clear indicators that allow for the evaluation of performance and the achievement of their objectives, and that serve to structure action plans and programs in line with their mission principles. Research, development, and innovation (R&D&I) activities play a fundamental role in defining competitive strategies for universities; hence the importance of their appropriate planning, optimal execution, and accurate measurement⁽³⁾.

Over the past few years, we have implemented key indicators that have improved decision-making in management and facilitated a more precise evaluation of our policies, reforms, and academic programs. The generation of up-to-date and reliable data is now a standard practice at our institute, ensuring that information serves those responsible for defining and implementing policies that promote robust and relevant research⁽⁴⁾. This approach represents a dynamic process that includes continuous reevaluation and adaptation to changes in scientific practice and institutional needs.

¹ Instituto de Investigaciones de Ciencias Biomédicas, Universidad Ricardo Palma. Lima, Perú.

Cite as: De La Cruz-Vargas JA, Quiñones-Laveriano DM, Hernández Patiño I. Indicadores de gestión en investigación 2023 INICIB-URP. Rev Fac Med Hum. 2024;24(1):07-12. [doi.10.25176/RFMH.v24i1.6461](https://doi.org/10.25176/RFMH.v24i1.6461)





These efforts reflect our commitment not only to maintaining but also to continuously improving our academic and research standards, underscoring the vital role that Universidad Ricardo Palma plays in advancing science and technology nationally and internationally.

In this editorial, we highlight the performance and achievements reached in thirteen key research management indicators of the Instituto de Investigaciones de Ciencias Biomédicas of Universidad Ricardo Palma. The results, covering the year 2023, are organized into five essential categories: A) Human Resources and Research Lines: Increase in research faculty and greater student participation in research, with ongoing lines until 2026 (Table 1). B) Infrastructure,

Technology, and Budget: Development of laboratories and advanced technology, with a 100% increase in budget (Table 2). C) Projects and Publications: Funding for multiple projects and increase in high-impact publications (Table 3).

D) Research-Teaching Integration, Events, and Courses: Improvement in the integration of research and teaching, and the holding of events and training courses (Table 4). E) Student Participation and Sustained Theses: High student participation in degree courses and an increase in sustained theses (Table 5). This compendium of indicators and achievements reflects the Institute's commitment to excellence in research and education, setting a benchmark for future efforts in the biomedical field.

Table 1A. Human Resources and Research Lines.

Indicator	Planned Goals	Achieved Goals	Compliance (%)	Results Analysis
Human Resources				
a) Increase in RENACYT-CONCYTEC research professors	45 medical professors	45 medical professors	>100% Exceeded	As of December 2023: 60 research professors.
b) Student participation in research projects	4 students	10 students	>100% Exceeded	Student participation in various research projects.
c) Participation of computer science interns	2 per semester	2 per semester	100% Achieved	Integration of two Computer Engineering interns.
Priority Research Lines				
a) Approved and valid 2021-2026	16 lines	16 lines	100% Achieved	Clear, approved and valid lines.
Research Ethics Committee				
a) Research Ethics Committee of the Faculty of Human Medicine	Valid	Valid	100% Achieved	260 research projects evaluated to date

Table 1B. Infrastructure, Technology, and Research Budget.

Indicator	Planned Goals	Achieved Goals	Compliance (%)	Results Analysis
Infrastructure and Technology				
a) Development of research laboratories	3 units	3 units	>100% Exceeded	Biotechnology Laboratory, Molecular Epidemiology Laboratory, and Cell Culture Laboratory.
b) State-of-the-art technological equipment	25 units	27 units	>100% Exceeded	Provision of cutting-edge technology equipment, including an inverted fluorescence microscope, MinION nanopore sequencer, real-time PCR thermocycler, and Qubit fluorometer.





c) Computer and office equipment	5 units	11 units	100% Achieved	Computer equipment, printers, computers, Wi-Fi internet access, among others.
d) Platforms and databases	3 platforms/ databases	3 platforms/ databases	100% Achieved	Access to Digital Commons Access to Embase Access to Uptodate Access to Scopus Access to NICIB published articles platform.
Research Budget 2023				
a) Budget growth	25%	100%	>100% Exceeded	Budgets for: 100 x 100 Program: management, translation, and publication of articles. Editing, translation and publication of the Journal of the Faculty of Human Medicine Project funding by the URP's Vice-Rectorate for Research

Table 1C. Projects and Publications.

Indicator	Planned Goals	Achieved Goals	Compliance (%)	Results Analysis
Developed Research Projects				
a) Projects funded by URP	10	10	100% Achieved	Ten projects funded by URP.
b) Self-funded projects	15	20	>100% Exceeded	Twenty projects completed.
c) External competitive funds	1	1	>100% Exceeded	PROCIENCIA-CONCYTEC project for 500,000 soles.
SCOPUS Scientific Production				
a) Growth compared to 2022	20%	30%	>100% Exceeded	As of December 31, 2023, SCOPUS recorded a total of 225 publications affiliated with URP, surpassing the goal.
b) Substantial increase in Q1-Q2 articles	5 articles	>8 articles	>100% Exceeded	Presence in Q1-Q2 journals.
Indexed Scientific Journal				
a) Journal of the Faculty of Human Medicine	4 issues per year	4 issues per year	100% Achieved	Indexed in more than 10 international databases.
b) Membership in prestigious committees	1	2	>100% Exceeded	Membership was obtained in: Committee of Publication Ethics (COPE) CrossRef
c) Achieving new indexations	1	4	>100% Exceeded	Dialnet managed by the Dialnet Foundation, Universidad de la Rioja. Harvard Library: Managed by Harvard University, United States DRJI: One of the most important directories of academic journals in India. EBSCO: A leading provider of databases and information services, managed by EBSCO Industries, United States.

Tabla 1D. Research-Teaching Integration, Events, and Training Courses

Indicator	Planned Goals	Achieved Goals	Compliance (%)	Results Analysis
Participation of Research Professors in Academic Courses				
a) Medical course subjects with research professors	20	25	>100% Exceeded	Researchers involved in more than 50% of medical course subjects.
b) Formative research	7	15	>100% Exceeded	Outputs from formative research (letters to the editor, reviews, articles).
Organization of Scientific Events				
a) International events	1	5	>100% Exceeded	Four conducted events: Euro-Latin American Cancer Congress, with the Associazione Italiana di Oncologia Medica. International Symposium "International Academic Perspectives on Precision Oncology", organized with Università degli Studi di Palermo, Italy. International Symposium: "Shaping the Future of Cancer Care: International Academic Perspectives on Precision Oncology", with Università degli Studi di Palermo and Collegio Oncologi Medici Universitari. Academic distinction: "Doctor Honoris Causa" to Dr. Antonio Russo, in conjunction with Università degli Studi di Palermo. Congress: "The Long Journey into BRCA1/2 Genes Goes On: The Emerging Landscape of BRCA-Related Tumors", organized with Università degli Studi di Palermo, Italia.
b) National Events	1	2	>100% Exceeded	Two events were conducted: Book presentation: "COVID-19 Collaborative Research", organized by INICIB. Opening of the INICIB Research Laboratories.
c) Participation in international events	2	5	>100% Exceeded	Notable participation in international events: Mexico, Brazil, Italy, Argentina, Spain.



Research Training				
a) Training courses for professors	2	4	>100% Exceeded	Four courses were conducted: 1. Thesis Mentorship and Advisory Course. 2. Research Methodology Course. 3. Systematic Review and Meta-Analysis Course. 4. Scientific Writing and Publishing Course.
b) Course for students and professors	1	1	100% Achieved	One course was conducted: Review and Meta-Analysis Course.
c) Course for hospital sites	1	2	>100% Exceeded	Two courses were conducted: Scientific Writing and Publishing Course. Directed at professionals from Hosp. Santa Rosa Scientific Writing and Publishing Course. Directed at professionals from Hosp. Daniel Alcides Carrión

Table 1E. Student Participation.

Indicator	Planned Goals	Achieved Goals	Compliance (%)	Results Analysis
Students Participating in Thesis Workshop Course				
a) Class of 2023 students who attended the workshop	70%	98%	>100% Exceeded	The number of students exceeded expectations.
Theses Sustained 2023				
a) Number of theses sustained	150	160	>100% Exceeded	Theses sustained and approved.
b) Awards for the best theses	7	7	100% Achieved	Economic award and diploma presentation event.

During 2023, the Instituto de Investigaciones de Ciencias Biomédicas of Universidad Ricardo Palma has consolidated its research processes, showing significant advances in high-quality scientific production and in attracting resources for the funding of its research projects, reflecting robust growth in both areas compared to 2022⁽⁵⁾. In the realm of scientific production, the indicators reflect sustained growth exceeding the established goals. According to the SCOPUS index, the growth in scientific output was more than 30%, significantly surpassing the planned target of 20%. This increase is particularly notable in the

publication of articles in journals categorized within Q1 and Q2 quartiles, where more than eight articles were published during the year. This achievement emphasizes the international relevance and high impact of the research conducted at the institute. Publishing in Q1 and Q2 quartile journals is essential because these represent the most prestigious and impactful journals in the scientific field. These publications ensure significant visibility within the international scientific community and contribute decisively to the academic prestige and research influence of the University.



Moreover, such publications are crucial for attracting high-level collaborations, competitive funding, and top-tier research talent, which are essential for maintaining and enhancing the quality and innovation in future research projects ^(6,7).

Regarding resource acquisition, the institute has stood out for its ability to attract external funding, as demonstrated by securing a project funded by PROCIENCIA-CONCYTEC with a budget of half a million soles for a project on inflammatory markers in Peruvian breast cancer patients. For the first time, INICIB-URP, along with three Oncological Centers in Peru: INEN in Lima, IREN-North in Trujillo, and IREN-South in Arequipa, are participating collaboratively in this clinical research venture. This complements the ongoing efforts in self-financing, where twenty projects were completed, five more than initially projected. Additionally, the research budget grew by more than 100%, far exceeding the 25% target proposed for 2023.

This budgetary growth reflects not only greater investment in infrastructure and technology but also increased confidence in the institute's capacity to manage and expand its research effectively ⁽⁸⁾. These advancements demonstrate not only the institute's commitment to excellence in research but also its ability to manage resources that enhance scientific production and technological development.

The ability to exceed goals in scientific production and financial resource acquisition positions the institute as a leader in biomedical research in the region, with clear positive impacts on academic training and contribution to global scientific knowledge. The formulation of standardized measurement indicators for science, technology, and innovation at international, regional, and institutional levels remains a constant need. In 2022, we proposed the design of an indicator system tailored to the characteristics of university institutions and the current trends in the Latin American region. The use and analysis of these indicators allow us to establish patterns, trends, and regularities in the organization that favor the institutional management of knowledge about the processes of science, technology, and innovation. Research management is directly linked to the university's capacity for the generation, dissemination, and evaluation of new knowledge ⁽⁹⁾.

This progress is a cornerstone for future initiatives, where the institute is expected to continue expanding its influence and capacity in scientific research, maintaining its focus on quality and international relevance of its contributions. Additionally, the solid infrastructure and resources acquired will enable addressing more complex and competitive scientific challenges at a global level, ensuring sustainability and continued growth in scientific production and technological innovation.

Correspondence: Jhony A. De La Cruz-Vargas.

Address: INICIB, Facultad de Medicina Humana, Edificio I-208. 2do piso Av. Benavides 5440 Surco, Lima - Perú

Telephone: 708-0000 / Anexo: 6016

Email: jhony.delacruz@urp.edu.pe

REFERENCES

- Camargo Velásquez A. Diseño de un modelo de indicadores para la gestión de investigación en instituciones de educación superior. Caso de estudio vicerrectoría de investigación Universidad del Magdalena [Tesis de maestría]. Barranquilla, Colombia: Universidad del Norte; 2019 [citado el 1 de marzo de 2024]. Disponible en: <https://manqlar.uninorte.edu.co/bitstream/handle/10584/9243/141090.pdf?sequence=1&isAllowed=y>
- Lugo Rodríguez EA. Los indicadores en la gestión de la investigación: Una propuesta para la educación universitaria. REVISTA EDUCARE. 23(3):78–99. Disponible en: <http://portal.amelica.org/ameli/journal/375/3752842005/html/>
- Restrepo G, Zabala D. Indicadores de gestión para proyectos de investigación y extensión en instituciones de Educación Superior. Rev Cienc Estrateg. 2016;24(36). Disponible en: <https://revistas.upb.edu.co/index.php/cienciasestrategicas/article/view/7618>
- Ferretti F, Pereira ÁG, Vértesy D, Hardeman S. Research excellence indicators: time to reimagine the 'making of'? Science and Public Policy. 2018;45(5):731–41. doi:10.1093/scipol/scy007
- De La Cruz-Vargas JA, Quiñones-Laveriano D. Management indicators in research 2022 INICIB-URP: Indicadores de gestión en investigación 2022 INICIB-URP. Revista de la Facultad de Medicina Humana [Internet]. 2023 [citado el 15 de marzo de 2024];23(1). doi:10.25176/RFMH.v23i1.5536
- Li H, Yin Z. Influence of publication on university ranking: Citation, collaboration, and level of interdisciplinary research. Journal of Librarianship and Information Science. 2023;55(3):828–35. doi:10.1177/09610006221106178
- Lindawati ASL, Meiryani. A bibliometric analysis on the research trends of global climate change and future directions. Cogent Business & Management. 2024;11(1):2325112. doi:10.1080/23311975.2024.2325112
- De La Cruz-Vargas JA, Rodríguez Chávez EI. Launching of the special 100 x 100 URP program for contributing to scientific production. Revista de la Facultad de Medicina Humana [Internet]. 2021 [citado el 15 de marzo de 2024];21(3). doi:10.25176/RFMH.v21i3.4022
- Amador SR, Pérez MD, López-Huertas MJ, Font RJR. Indicator system for managing science, technology and innovation in universities. Scientometrics. 2018;115(3):1575–87. doi:10.1007/s11192-018-2721-y

