

2025 Highlights

Representation for Latin America

Max Planck Society

The formal appointment of the Representation for Latin America in 2025 was an institutional step that enabling the reactivation and strengthening of collaborative efforts with universities, science and technology organizations, and researchers across the region. This process both consolidated long-standing partnerships and opened new avenues for cooperation.

Throughout this period, the Representation accompanied and promoted an active cooperation agenda, highlighted by the visit of a delegation from the Society, headed by Prof. Patrick Cramer, which included academic meetings, workshops, institutional meetings, and outreach activities.

In this newsletter, we share a selection of some of the most relevant events and activities of the year in collaboration with the region.

Collaboration with Latin America in numbers 2025



Calls

Calls for collaborative projects are a key component in reactivating activities with strategic partners in the region. In 2025, the following calls were launched: Este año se concretaron las siguientes:

Uruguay

Call for the establishment of Tandem Research Groups in Uruguay (Max Planck – ANII).

Of the 11 proposals submitted, two projects were selected to receive funding for a period of five years:

Project: “Multi-omics approaches to contribute to the understanding of fundamental questions in plant biology and agriculture”

Dr. Signorelli Santiago, Department of Plant Biology of Universidad de la República in collaboration with Prof. Caroline Gutjahr of the Max Planck Institute of Molecular Plant Physiology.

Project: “Collective nest building: cooperation mechanisms and reproductive consequences in ovenbirds”

Dr. Andreani Nicolás and Da. Montesana Catalina, from the Laboratory of Ornithology, Department of of Ethology of the Universidad de la República, in collaboration with Prof. Iain D. Couzin from the Max Planck Institute of Animal Behaviour.

- Sao Paulo, Brazil

MPG-FAPESP Call for joint research projects.

Of the 10 proposals submitted, 7 projects will be funded and implemented over a period of three years:

Limonene-Derived Bottlebrush Block Copolymers for Functional Photonic Materials –Faculty of Chemical Engineering, UNICAMP (Dr. Ronierik Pioli Vieira)– MPI of Colloids and Interfaces, Potsdam (Prof. Sivia Vignolini)

The medial amygdala response to dominant conspecific: the quest for the neural circuits and molecular features of depressive-like responses -Institute of Biology, UNICAMP (Dr. Daniel Martins De Souza)- MPI of Biological Intelligence, Munich (Prof. Ruediger Klein)

New Particle Formation and Its Interaction with Clouds and Precipitation in the Amazon – Institute of Physics, USP (Dr. Luiz Augusto Toledo Machado) – MPI of Chemistry, Mainz (Prof. Christopher Pohlker)

Implementing the Internet of Animals Approach in Brazil – Institute of Biosciences, USP (Dr. Francisco Voeroes Denes) – MPI of Animal Behaviour, Martinsreid (Prof. Martin Wikelski)

Nonlinear and Quantum Photonics in Microresonator Arrays- NQ-MiRA –Gleb Wataghin Institute of Physics, UNICAMP (Dr. Gustavo Silva Wiederhecker) - MPI for the Science of Light, Erlangen (Prof. Pascal Del Hays)

Role of perivascular adipose tissue in the myogenic tone and remodeling of resistance arteries in aging – Institute of Biology, UNICAMP (Dr. Ana Paula Couto Davel) – MPI for Heart and Lung Research, Bad Nauheim (Prof. Stefan Offermanns)

Exploring Double-Layer Water Cherenkov Detector Designs for SWGO: Bridging the Gap with CTAO – Institute of Astronomy, Geophysics and Atmospheric Sciences, USP (Dr. Elisabete Maria De Gouveia Dal Pino) – MPI of Nuclear Physics, Heidelberg (Prof. James A Hinton)

MPG-FAPESP Call for the establishment of Tandem Research Groups.

Nine proposals were submitted and are currently being evaluated by committees from both sides. The results will be published in March 2026.

Costa Rica

MPG-CONARE Call for Joint research Projects

The five applications submitted were successfully evaluated by the committees and the projects will start execution in 2026.

Adaptive Strategies of Tropical Insects (Coleoptera and Hymenoptera): Insights from Gut Microbiota and Symbiotic Interactions.

University of Costa Rica (M.Sc. Catalina Murillo Cruz) in collaboration with the MPI for Chemical Ecology, Jena (Prof. Dr. Martin Kaltenpoth)

Integrative genomic, transcriptomic and metabolomic analysis of flavonoid biosynthesis in *Rhynchospora* spp.: unraveling the triclin pathway and its modulation by LED light wavelengths.

Faculty of Biology, University of Costa Rica (Dr. Andrés Gatica Arias) in collaboration with the MPI of Plant Breeding Research, Cologne (Dr. Andre Marques)

Development and Automation of the First Costa Rican End Station at a Free Electron Laser, Dedicated to Active and Biomaterials Research

Costa Rica Institute of Technology (Prof. Dr. Allen Arturo Puente Urbina) in collaboration with the Fritz Haber Institute of the Max Planck Society, Berlin (Prof. Dr. Gerard Meijer)

Collective decision-making dynamics during the exodus of cave-dwelling bat colonies

University of Costa Rica (Dra. Gloriana Chaverri) in collaboration with the MPI of Animal Behavior, Konstanz (Dr. Ariana Strandburg-Peshkin)

New Partner Groups in Latin America

In 2026, five new partner groups began their activities in Latin America. These were selected in a call for proposals launched in 2025 by the MPG's central administration.

→ **Brasil: Socio-Environmental Rights in the Face of Climate Change: Global South Perspectives**

Dr. jur. Mariana Monteiro de Matos, Universidade Federal do Pará - Prof. Dr. Marie-Claire Foblets, MPI for Social Anthropology, Halle

→ **Chile: Transformate Sustainable Technologies in Radio Astronomy**

Dr. Marilyn Cruces, Pontificia Universidad Católica de Chile -Prof. Dr. Michael Kramer, MPI for Radio Astronomy, Bonn

→ **México: Computer Aided Gene Discovery in Plant Natural Products**

Dr. Carlos Eduardo Rodríguez ,Tecnológico de Monterrey-Prof. Dr. Sarah O'Connor, MPI for Chemical Ecology, Jena

→ **Mexico: Evolution and function of de novo genes in the brown algae**

Dr. Josué Barrera Redondo, Centro de Investigación y de Estudios Avanzados Del Instituto Politécnico Nacional, Irapuato-Prof. Dr. Susana Coelho, MPI for Biology Tübingen

→ **Uruguay: Dithiolane containing cyclic peptides as cell-permeable p-PROTACs to target RBM39**

Dr. Laura Posada, Universidad de la República, Montevideo, Uruguay- Prof. Dr. Stefan Raunser, MPI for Molecular Physiology

International symposiums and events

- **Measuring Migration in Latin America: Leveraging digital traces, registers, censuses, and surveys –** Measuring Migration in Latin America: Leveraging digital traces, registers, censuses, and surveys - Final workshop of Dr. Victoria Prieto's Tandem Group, February 25-26, 2025 (Faculty of Social Sciences, Universidad de la República - MPI for Demographic Research)

Held at the Faculty of Social Sciences of the Universidad de la República and organized by the MPI for Demographic Research, the Faculty of Social Sciences, the Faculty of Engineering, and the Sectoral Commission for Scientific Research of the UdelaR, and the National Agency for Research and Innovation (ANII), the symposium brought together demographers, data scientists, geographers, and sociologists from a dozen countries in the Americas and Europe. Participants discussed methodologies, Latin American data sources, and analytical approaches for estimating and examining internal and international migration.

The symposiums were organized within the framework of the collaboration established through the Tandem Group "Use of Internet-based data to quantify and sample international migrants," led by Dr. Victoria Prieto and the result of cooperation between the UdelaR and IMP Demographic Research.



Dr. Prieto presenting during the final workshop at UdelaR. Dr. Tobias Renghart, Representative for Latin America of the Max Planck Society, accompanied the closing activity of the tandem group.

Over the course of several sessions, keynote speakers shared insightful perspectives on the challenges and promises of new data sources to complement traditional data for the study of migration in the Latin American and Caribbean region. They also engaged the audience in discussions on cutting-edge migration research.

- **Pucallpa Seminar: Empires, Environments, Objects: Perspectives from the Peruvian Amazon-** Workshop of Dr. Fernando Loffredo's Partner Group, April 7-10, 2025 (Pontificia Universidad Católica del Perú and MPI Kunsthistorisches Institut Florenz)

The Partner Group “Empires, Environments, Objects” in collaboration with “Chana - Station for Language Sciences and Interculturality” co-organized a seminar in Pucallpa, Peru. Dedicated to Amazonian indigenous languages and cultures and ethically committed to its community environment, Chana is a research station of the Pontifical Catholic University of Peru, supported by the Max Planck Institute for Evolutionary Anthropology in Leipzig and the University of Zurich. During the event, a group of master's and doctoral students explored the past and present culture and artistic production of the Ucayali region, guided by the Chana team and local indigenous communities.

→ Participation of Max Planck Institutes in ICON•S 2025, Universidade de Brasília

The Max Planck Society had a prominent presence at the Annual Conference of the International Society of Public Law (ICON•S 2025), held from July 28 to 30, 2025, at the Universidade de Brasília (UnB), Brazil. The meeting brought together more than 1,500 researchers from 61 countries, consolidating its position as one of the world's leading forums on contemporary public law. Under the theme “At the Crossroads of Public Law: Equality, Climate Emergency, and Democracy in the Digital Era,” the conference addressed key issues such as artificial intelligence, democracy, the environment, comparative politics, and institutional transformations.

The Max Planck Law Network actively participated with a delegation composed of researchers and three Max Planck directors: Thomas Duve, Ralf Poscher, and Armin von Bogdandy. Their presence reinforced the Max Planck Society's commitment to strengthening public law research on a global scale, particularly in Latin America.



“Early Career Researchers’ Breakfast” ©Max Planck Law

During the event, Max Planck Law organized an institutional reception that brought together judges from the Brazilian Federal Supreme Court, members of the Inter-American Court of Human Rights, representatives from the BNDES, diplomats—including the German ambassador—and renowned academics. This meeting provided an opportunity to present the Max Planck Law network and explore opportunities for cooperation with Brazilian and regional institutions.

The delegation participated in a joint panel with UCL—

“Researching Constitutional Resilience in Turbulent Times”—with the participation of the three Max Planck directors. The open conversation format fostered an in-depth exchange on democracy, constitutional resilience, and the current challenges of public law.

It also organized, together with the UCL Global Centre for Democratic Constitutionalism, the “Early Career Researchers' Breakfast,” which brought together more than 150 young researchers from different countries. This space promoted intergenerational academic dialogue and new collaborative networks.

Both activities reflected the Max Planck Society's commitment to promoting scientific excellence, global exchange, and the development of new research communities.

→ Workshop: “Social Protection and Environmental Justice: A Global Dialogue”

The International Workshop on Social Protection and Environmental Justice brought together specialists from the Max Planck Institute for Social Law and Social Policy and from European and Latin American universities in Bolivia. The objective was to discuss the role of social law and environmental justice in the face of the challenges of climate change, the rights of nature, and the protection of collective rights, from a critical and comparative perspective.

The workshop was organized and directed by Dr. Lorena Ossio, leader of the partner group “Social Protection for Indigenous Peoples.” Participants included Prof. Ulrich Becker, LL.M., director of the Max Planck Institute; Christian Günther, researcher at the Max Planck Institute; Prof. Karl-Peter Sommermann and Dr. Manuela Niehaus from the German University of Administrative Sciences in Speyer; and Prof. Patricia Jerónimo from the University o Minho (Portugal) and Prof. Valeria Berros from the Universidad Nacional del Litoral (Argentina), and professors from the Universidad Pública Autónoma del Beni, José Ballivián in Trinidad, Universidad Privada Domingo Savio and Universidad Católica Boliviana in Santa Cruz and La Paz.



(left to right) Dr. Lorena Ossio, Prof. Ulrich Becker, LL.M., director of the MPI for Social Law and Social Policy, and Christian Günther, researcher at the same MPI.

As part of this conference, professors and experts visited the community of Santa Ana de Moseruna, in the Bolivian Amazon, to talk with its chief and members of the TIM indigenous autonomy about the challenges of a social and ecological state, the importance of intercultural and interlingual legal communication, protecting the environment, and safeguarding human dignity.

→ Participation of Dr. Mariana Monteiro in COP30, Belem, Pará, Brazil



Dr. Mariana Matos with Ambassador Correa do Lago, President of COP30

Dr. Mariana Monteiro de Matos, leader of the partner group “Socio-Environmental Rights in the Face of Climate Change: Global South Perspectives” – a collaboration between the MPI of Social Anthropology and the Universidade Federal do Pará (UFPA) – participated in the annual climate conference (COP30). During the event, held in Belém (Brazil) between November 10 and 21, Dr. Matos worked to connect her interdisciplinary research on socio-environmental conflicts and cultural diversity with the most pressing debates on global climate governance.

To this end, she participated in numerous discussions, gave lectures, and organized several events in collaboration with national and international institutions, bringing together scientists, academics, representatives of states, the UN, and the local community, as well as other relevant actors. Among the topics addressed in the different activities were: “Critical minerals, just transition, and human rights,” “Environmental defenders in Latin America,” and “Advisory opinion of the Inter-American Court on climate emergency and human rights.”

As a concrete result of their participation, new partnerships were established for future projects and their article on the legacy of COP30 was published in issue No. 6 of the magazine “Ciencia y Voces de la Amazonía” (Science and Voices of the Amazon).

→ 3° International Congress on Iberoamerican visual culture (XVI to XIX centuries)

The conference took place between October 14 and 16 at the National University of Tres de Febrero in Buenos Aires and was organized by UNTREF's Quillca Program, directed by Agustina Rodríguez Romero, and the Partner Group "Empires, Environments, Objects." —a collaboration between the Pontifical Catholic University of Peru and the Kunsthistorisches Institut in Firenze (Max Planck Institute), led by Dr. Fernando Loffredo. The event featured conferences, panel discussions, presentations, and two museum visits that explored how images shaped the understanding of the territory and how they dialogued—or conflicted—with indigenous and local knowledge between the 16th and 19th centuries.



Dr. Fernando Loffredo, leader of the partner group, and Prof. Dr. Gerard Wolf, Director of the Kunsthistorisches Institut in Florenz, together with authorities from UNTREF.

Under the slogan "Of kingdoms and natures: ecologies, knowledge, and visions of the territory," the meeting brought together researchers from Latin America, North America, and Europe to reflect on the multiple ways in which nature was observed, represented, and transformed from the conquest to modernity.

During the three days, presentations were given on topics ranging from colonial landscapes and scientific expeditions to indigenous cosmologies, visual accounts of extractivism, and the ways in which nature became a central actor in American cultural history. The conference proposed a dialogue between disciplines—art history, history, anthropology, literature, and visual, environmental, and urban studies—that allowed for a reconsideration of

the relationships between the human and the non-human from diverse and innovative perspectives. To make room for critical perspectives from new generations of academics, 10 travel grants were awarded thanks to the support of the KHI and the PUCP.

→ **SUNRISE mission: scientific advances and participation of the Partner group led by Francisco Iglesias**

Over the last months of 2025, the SUNRISE project, one of the most innovative initiatives for studying the solar atmosphere, was the focus of two international meetings that brought together researchers from Europe, Asia, and America. The partner group "High Resolution Solar Magnetometry" (University of Mendoza, Argentina – IMP for Solar System Research, Göttingen), led by Dr. Francisco Iglesias, was present at both events.

◆ **2nd PMI & Sunrise Science Meeting.**

At this first meeting, held in Granada, Spain, from March 24 to 28, researchers from the collaboration presented advances in instrumentation, operating models, and preliminary results from the historic flight of SUNRISE III, the solar telescope carried by a stratospheric balloon that made high-resolution observations from the stratosphere. The meeting included discussions on instrument performance, calibrations, data quality, and joint analysis strategies for UV, visible, and infrared observations.



Mariano Sánchez Toledo during his stay at the IMP for Solar System Research.

Mariano Sánchez Toledo represented the group at the event. The student also completed a two-month research stay at IMP for Solar System Research to work on reducing data from the SUSI instrument aboard Sunrise III.

◆ 3rd SUNRISE III Science Meeting

The second meeting, held in Nagoya, Japan, from October 14 to 16, brought together specialists to share the first scientific results of SUNRISE III. With a hybrid format, the event allowed teams from multiple international centers to attend. Over three days, preliminary analyses of the observations

acquired, publication strategies, and the consolidation of global collaborations were discussed.

Dr. Francisco Iglesias actively participated in the scientific sessions, representing the PG and contributing to discussions on data reduction, calibrations, and scientific opportunities derived from the enormous volume of information produced by the mission.

Dr. Iglesias' presence at both events underscores the group's central role in the SUNRISE international collaboration and reinforces its participation in the analysis, interpretation, and scientific exploitation of this unique mission, which combines UV, visible, and infrared observations to study solar magnetism in unprecedented detail.

Patagonia Synuclein Workshop, Villa La Angostura, November 17 -19



Participants from around the world gathered in the Patagonia Synuclein Workshop @MPLbioR

Between November 17 and 19, Villa La Angostura hosted an unprecedented event that brought together—for the first time in our region—the world's leading experts in synucleinopathies, including specialists in Parkinson's disease, biomarkers, neurodegeneration, and early diagnosis.

Organized by the Laboratory of Structural Biology, Chemistry, and Molecular Biophysics (MPLbioR), the workshop brought together researchers from more than ten countries, integrating basic, clinical, and translational neuroscience in a unique setting.

Among the prominent international figures participating were global leaders such as Maria Grazia Spillantini, who identified alpha-synuclein as the main component of Lewy bodies; Christian Griesinger; Laura Parkkinen; Bert de Groot; Tiago F. Outeiro, among many others, along with key

representatives from the Argentine health system and the region.

Over three days, keynote lectures, panels, posters, and networking opportunities fostered new opportunities for scientific cooperation.

→ **Participation of the Representation for Latin America in outreach and international cooperation activities**

FAPESP Week, Berlin, March 25 - 26



@FU Berlin

The São Paulo Research Foundation organizes FAPESP Weeks around the world to deepen international cooperation and present research results and funding formats.

This year, the event took place in Berlin on March 25 and 26 at the Free University of Berlin. Dr. Tobias Renghart, MPG Representative for Latin America, and Latin American researchers currently conducting research stays at Max Planck Institutes joined a total of nearly 200 participants from research institutions in Germany and Brazil who attended the event.

Other important dissemination events

In addition, the Max Planck Society's Latin American Representation participated in numerous events in 2025 aimed at raising awareness of the Max Planck Society's collaboration opportunities and offerings. For example, Tobias Renghart gave a lecture on June 10, 2025, at the German Embassy in Mexico City's "Career Day" on scientific careers at the Max Planck Society, and presented the collaboration programs on September 8, 2025, at the German-Costa Rican exchange event of the National Council of Rectors of Costa Rica (CONARE). At these events, the representation also benefits from fruitful exchanges with German partners in the region, such as the DAAD, the DFG, German universities, and the Alexander von Humboldt Foundation.

Visit to Universidad Federal do Rio Grande do Norte, Brazil

In the framework of the visit of Max Planck Society President Patrick Cramer to Brazil in October, Tobias Renghart also took the opportunity to hold meetings with several Brazilian universities to further diversify and strengthen collaboration in the country. In this context, he met with representatives of the Federal University of Rio Grande do Norte (UFRN) to explore potential avenues for institutional cooperation and future joint initiatives. He also visited the Brain Institute (Instituto do Cérebro) at UFRN, which already maintains scientific links with Max Planck researchers, including collaborations with the Ernst Strüngmann Institute and other Max Planck Institutes. These exchanges aimed to identify new opportunities for expanding existing partnerships and fostering new connections in key research areas



Dr. Tobias Renghart with authorities from UFRN @Williane Silva

.Participation of group leaders as authors and co-authors in publications

- [Seed Surface Sterilization Can Alter Root Microbiomes, Increase Endophyte Diversity and Enhance Plant Growth \(Appl. Sci. 2025, 15\(17\), 9545; DOI:10.3390/app15179545\)](#) – Dr. David Johnston Monje, former Tandem Group Leader “Dynamics and optimization of plant microbiomes to improve agricultural production” (collaboration between the MPI for Plant Breeding Research, Cologne, and the Universidad del Valle, Cali, Colombia).

The publication examines how seed surface sterilization—a practice widely used in plant microbiome research—can substantially alter both the root microbiome and plant growth. The study shows that this procedure increases endophyte diversity and may eliminate pathogenic microorganisms, thereby strongly influencing experimental outcomes. These findings underscore the crucial role of the seed surface in the transmission of the natural plant microbiome and have important implications for agricultural research, particularly for the development and evaluation of bioinoculants.

- [“The Sunrise III Solar Observatory”, Solar Physics magazine](#)

Dr. Francisco Iglesias, leader of the High Resolution Solar Magnetometry partner group (University of Mendoza – Max Planck Institute for Solar System Research), participated in three scientific publications from The Sunrise III Solar Observatory collection in the journal Solar Physics. The papers present the results of the successful third flight of the SUNRISE III mission, a stratospheric solar observatory developed by an international consortium led by the Max Planck Society, which operated above 99% of the Earth's atmosphere and enabled observations of the solar magnetic field with unprecedented accuracy. Among the main contributions is the new-generation instrumentation—in particular the SUSI ultraviolet spectropolarimeter—which opened up new possibilities for studying the solar photosphere and chromosphere in spectral ranges inaccessible from ground-based observatories.

- [Sunrise III: Overview of Observatory and Instruments \(DOI: 10.1007/s11207-025-02485-1\)](#)
- [The Sunrise Ultraviolet Spectropolarimeter and Imager: Standalone Polarimetric Calibration \(DOI: 10.1007/s11207-025-02470-8\)](#)
- [The Sunrise Ultraviolet Spectropolarimeter and Imager \(SUSI\): Instrument Description \(DOI:10.1007/s11207-025-02471-7\)](#)

Adriana Maldonado Chaparro, leader of the partner group “Linking sociality and demography in a changing world” (Universidad del Rosario, Bogotá, Colombia - Max Planck Institute of Animal Behavior, Martinsreid) participated as first author in the following publications:

[Social instability is associated with an elevated stress response but not with a fitness cost across vertebrate studies \(R Soc Open Sci. \(2025\) 12 \(7\): 250691;DOI: 10.1098/rsos.250691\)](#)

The study analyzed nearly six decades of research (1970–2025) to assess how social instability—understood as frequent or abrupt changes in group composition—affects stress physiology and biological performance in vertebrates. Based on a meta-analysis of 59 studies on birds and mammals, the international team led by Adriana A. Maldonado-Chaparro found that social instability is consistently associated with higher levels of stress hormones, although these increases do not necessarily translate into measurable biological costs at the population level. The work provides an integrative view of the effects of social stress and highlights the need for comparative approaches and standardized designs to better understand its evolutionary and ecological consequences.

- [Female guinea pigs prefer familiar opposite-sex individuals but not familiar same-sex peers \(Animal Behaviour, Volume 230, December 2025, 123384; DOI: 10.1016/j.anbehav.2025.123384\)](#)

This article presents an analysis of how female guinea pigs (*Cavia porcellus*) adjust their social preferences according to the context of interaction. Using a controlled experimental design, the results show that females have a strong inclination toward social interaction and that, in reproductive contexts, they prefer familiar males over unfamiliar individuals, with higher levels of physical contact. In contrast, in non-reproductive interactions, no clear preferences were observed between familiar and new females, although agonistic behaviors toward strangers were observed. The study provides novel evidence on the role of familiarity in sociability and mate selection, expanding knowledge on the evolution of social behavior in rodents.