

“One Health” in French overseas territories
CNRS Junior Scientific Chair (CPJ) project (2025)

Concerned French overseas territories:

Antilles, La Réunion, French Guiana, French Polynesia, New Caledonia
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Partner establishments/organizations

Université La Réunion
Université des Antilles
Université de la Guyane
Université de la Polynésie Française
Université de Nouvelle-Calédonie

Junior Scientific Chair name (French):

'One Health' en Outre-Mer

Junior Scientific Chair name (UK):

« One Health » in French overseas territories

Junior Scientific Chair acronym:

1HOM

Keywords:

Global Change
Socio-ecosystems
Zoonosis
Health
Biodiversity

Project duration:

5 years

Scientific theme:

<input type="checkbox"/>	Earth and Universe Systems Sciences
<input checked="" type="checkbox"/>	Environment, Agronomy, Ecology
<input type="checkbox"/>	Physic
<input type="checkbox"/>	Energy
<input type="checkbox"/>	Chemistry and processes
<input type="checkbox"/>	Mathematics
<input type="checkbox"/>	Information and Communication Sciences and Technologies
<input type="checkbox"/>	Biology and Health
<input type="checkbox"/>	Humanities and Social Sciences
<input type="checkbox"/>	Law, Economics, Management

CNRS strategy:

Overseas territories are considered "marker" sentinels of the global change impacts: increased natural hazards, degradation of resources and environmental quality, declining biodiversity, emergence of invasive species and emerging diseases, in addition to the effects of anthropogenic pressure on cultural and natural heritage. One of the challenges for these territories is to anticipate the effects of global change and support populations in adapting to it in a context of high vulnerability.

In its "Overseas Roadmap", the CNRS commits to working with institutions and populations of the territories on the major challenges of global change by improving knowledge through integrated and transdisciplinary approaches. Similarly, in its "Health Roadmap", the CNRS highlights health issues in a "One Health" context, from the health of an individual to populations at the center of evolving socio-ecosystems, integrating the various interdisciplinary themes of environmental, biodiversity, and human health issues, which are closely connected given their high interactions and interdependencies. The CNRS's commitment is to support research on global changes in the Overseas Territories in order to predict their impacts and develop mitigation solutions for and with the overseas populations. The CNRS's interdisciplinary and multisectoral nature and the networking of territories through numerous research laboratories and infrastructures such as observatories and so-called "Zones ateliers" allow it to cover a broad thematic area: monitoring socio-ecological systems, dynamics of natural environments, biodiversity, emergence of vector-borne and infectious diseases, etc. This makes the CNRS a relevant actor for addressing various aspects of the "One Health" approach in the context of global change, which is inherently transdisciplinary.

Possible host laboratory:

PIMIT / CNRS, UR - La Réunion
OSU-R / CNRS, UR - La Réunion
PHEEAC / CNRS, UA - Martinique
LEEISA / CNRS, UG, IFREMER - French Guiana
EcoFoG / CNRS, AgroParisTech, CIRAD, INRAE, UA, UG - French Guiana
CRIOBE / CNRS, EPHE-PSL, Université de Perpignan Via Domitia - French Polynesia
EMR SantEco / CNRS @UMR ENTROPIE / IRD, UR, UNC, IFREMER - New Caledonia & La Réunion

Host laboratory strategy:

The CNRS overseas laboratories that can host the Junior Scientific Chair conduct studies on the socio-ecosystems specific to each territory:

- In French Guiana, LEEISA and EcoFog are working on tropical forest ecosystems, biodiversity issues, and emerging diseases related to deforestation and forest degradation under climatic and anthropogenic pressures.
- In the Antilles, PHEEAC is interested in the adaptation of socio-ecosystems, examining socio-environmental crises and biodiversity preservation.
- In La Réunion, OSU-R is working on the observation and evolution of terrestrial and marine natural environments, and PIMIT is working on the microbiological, ecological, and anthropogenic factors contributing to the emergence and spread of zoonoses.
- In the Pacific, CRIOBE in French Polynesia and EMR SantEco in New Caledonia are working on the health and vulnerability of coral ecosystems and marine biodiversity, and their uses.

Summary of the scientific project:

The "One Health" approach focuses on health by recognizing the interdependence of the well-being of human populations and that of ecosystems. Disruptions (biodiversity decline, anthropogenic pressure, resource scarcity, pollution, destruction of natural habitats, climate change, etc.) and the increase in extreme events affect the balance and the relationship between populations and ecosystems.

The "One Health in French overseas territories" Scientific Chair will specifically support research activities on the evolution of overseas socio-ecosystems in one of the following two research areas:

- Observation, monitoring, and prevention of the impacts of climate change and natural hazards on the uses and health of overseas populations
- The evolution of ecosystems, biodiversity, and natural substances and resources in the face of global changes (climatic and anthropogenic) and their impacts on the uses and health of populations

Teaching duties:

The teaching duties of the chair holder will be discussed with the establishments on the site where he/she will be assigned in existing or to be developed training courses.

Financial needs:

Nature of planned expenditure	Amount of planned expenditure in euros
ANR package	200 000
Total	200 000

Strategy in terms of international attractiveness:

The chair holder will implement initiatives and partnerships within its thematic areas particularly seeking to establish international cooperation relationships with neighboring countries of the overseas territory to which they will be assigned, in accordance with the CNRS' Overseas Roadmap. They will commit to submitting a project within the framework of Horizon Europe's European calls for proposals (ERC, MSCA, collaborative projects) during the five years of their contract.

Scientific dissemination:

The dissemination of the results will involve world-class scientific advances, which can be characterized by productions of all types: publications, software, patents, books, etc. In addition, the project will implement communication towards various targets such as scientific communities, media, decision-makers, general public, schools, etc., with an adapted schedule. Specific tools may be developed such as websites, newsletters or even meetings, international symposia, summer schools and conferences.

Open science

The CNRS is developing a strong policy to support open science. Open science consists of making research results "as accessible as possible and closed as necessary." As such, the CNRS aims to ensure that 100% of the texts of publications resulting from the work of its units are made accessible to all, in particular through deposit in HAL. The data produced must also be made available and reusable, unless there are specific restrictions. Furthermore, the guiding principles of individual evaluation are being revised in accordance with the DORA declaration, making them more qualitative and taking into account all facets of the research profession.

Science-society

The science-society relationship is now recognized as an integral part of scientific activity. The project will develop this dimension in synergy with all partners. The resulting research will contribute to informing public decision-making. Participatory science initiatives may be initiated with stakeholders from the project's socioeconomic and cultural ecosystem.

Specify the project deployment indicators and the methodology for monitoring them:

The activity will be evaluated in particular on the basis of scientific production (publications, software, patents, books, etc.), on institutional and private partnerships formalized by contracts, on international influence, on the promotion of work towards multidisciplinary scientific communities, on innovation and its transfer to society and on scientific dissemination aimed at non-specialist audiences.

Comments:

The project is part of the national "Overseas" PPR (Priority Research Program) which focuses on the study and control of pollution in overseas territories and its effects on ecosystems, population health, and the resulting social imbalances. This work is also supported by the "Zone Ateliers" (in French Guiana and French Polynesia).

It is also aligned with the themes of three PEPR (Priority Research Programs and Equipment), co-coordinated by the CNRS:

- Solu-Biod (Nature-based Solutions) for biodiversity issues; nature-based solutions; adaptation, evolution, and resilience; global/climate change; socio-ecosystem studies; green economy; education; and inter- and trans-disciplinarity.
- BRIDGES (Fisheries and Biodiversity in the Indian Ocean) for vulnerability issues; climate change risk management; ecological networks; and social networks. Biodiversity conservation and nutrition in the southwest Indian Ocean region
- TRACCS (Transforming Climate Modeling for Climate Services), which aims to make climate information more accessible and useful for decision-makers and communities.