







La science pour la santé _____ From science to health

Objectives

Under a partnership between Inserm and CNRS, a call for proposals is launched aimed at:

- Enabling young scientists to create and lead a team within an established Inserm or CNRS (Institute of biological sciences) laboratory in France. The ATIP - Avenir teams will strengthen the research of the host units but will develop independently their own scientific project.

- **Promoting mobility** and attracting young team leaders of high-level working abroad.

The ATIP - Avenir grant is allocated for a period of 3 years. After evaluation, it can be extended for an additional 2 years.

It is open to any young scientists, whatever their present position and nationality, who have defended their PhD (or equivalent doctoral degree) for over 2 years and under 8 years (PhD between september 15th 2012 and september 15th 2018)¹. Successful applicants will have to develop their projects within a structure in which he/she has not been working for more than 18 months² and will not find any previous mentors (of PhD and/or post doctorate). Laureates of a grant for the young researchers similar to the ATIP-Avenir program are not eligible (e.g. ANR or ERC programs to manage a research group). ATIP-Avenir laureates can candidate to similar programs, but cannot cumulate funding for programs similar to ATIP-Avenir.

Applicants cannot apply for more than two different ATIP-Avenir calls.

Projects must relate to Life sciences or Health. The contract will have to begin during the first half of the year 2022.

Applications from clinicians are encouraged. Projects should comply with ethics rules of Inserm and CNRS.

Funding:

- Annual grant of €60,000
- Two-year salary for a postdoctoral researcher.
- Three-year salary for non-tenured successful applicants.

The host laboratory will provide the team a dedicated research area of about 50m² (infrastructures fees will be paid by the host lab) and access to the local technological facilities. Applicants may submit their proposal without an identified host laboratory.

Potential partners for the co-funding of projects in their scientific areas

Selection procedure

Applications will be assessed by specialized international scientific committees with appropriate experts³:

- LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics;
- LS2 Genetics, 'Omics', Bioinformatics and Systems Biology;
- LS3 Cell Biology, Development and Evolution;
- LS4 Physiology, Pathophysiology and Endocrinology;
- LS5 Neurosciences and Neural Disorders;
- LS6 Immunity, Infection and Microbiology;
- LS7 Diagnostic tools, Therapies, Biotechnology and Public Health.

The selection will be done in two stages: shortlisting in April 2021 and interviews of the selected applicants in mid-June 2021. CNRS and Inserm will establish the final list of laureates and their host laboratories jointly early July 2021.

Dead line: applications must be submitted in electronic form before November 18th 2020

Proposals should be submitted on-line at:

https://sp2013.inserm.fr/sites/eva/appels-a-projets/Pages/Page1.aspx

¹ Exceptions can be granted for maternity (18 months per child) or paternity and/or military service leaves and for clinicians (laureates from the École de l'Inserm Liliane Bettencourt...)

² Exceptions can be granted to teachers and medical doctors from university hospitals

³ Consult the themes of research covered by these juries on the following page online

Further information can be obtained from

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ANRS (Agence nationale de recherches sur le sida et les hépatites virales), AFM (Association française contre les myopathies), ARC (Fondation ARC pour la recherche sur le cancer), FINOVI (Fondation innovations en infectiologie), la Fondation Bettencourt Schueller, LNCC (Ligue nationale contre le cancer), Plan Cancer, Université de Lorraine (ISITE LUE), Université de Montpellier (ISITE MUSE), Université de Nantes (ISITE NEXT).

ATIP-Avenir Evaluation panels and fields of research covered by the respective panels

LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics:

Macromolecular complexes including interactions involving nucleic acids, proteins, lipids and carbohydrates

Biochemistry

DNA biosynthesis, modification, repair and degradation

RNA synthesis, processing, modification and degradation Protein synthesis, modification and turnover Lipid biology, Glycobiology

Molecular biophysics (e.g. single-molecule approaches, bioenergetics, fluorescence)

Structural biology and its methodologies (e.g. crystallography, cryo-EM, NMR and new technologies) Molecular mechanisms of signalling pathways

Fundamental aspects of synthetic biology and chemical biology

LS2 Genetics, 'Omics', Bioinformatics and Systems Biology:

Molecular genetics, reverse genetics, forward genetics, genome editing Non-coding RNAs Quantitative genetics Genetic epidemiology Epigenetics and gene regulation Genomics (e.g. comparative genomics, functional genomics) Metagenomics, transcriptomics, proteomics Metabolomics, glycomics, lipidomics Bioinformatics Computational biology Biostatistics Systems biology

LS3 Cell Biology, Development and Evolution:

Morphology and functional imaging of cells and tissues Cytoskeleton and cell behaviour (e.g. control of cell shape, cell migration and cellular mechanosensing) Organelle biology and trafficking Cell junctions, cell adhesion, cell communication and the extracellular matrix Cell signalling and signal transduction Cell cycle, division and growth Cell death (including senescence) and autophagy Cell differentiation, physiology and dynamics Tissue organisation and morphogenesis in animals and plants (including biophysical approaches) Stem cell biology in development, tissue regeneration and ageing Evolution of developmental mechanisms

LS4 Physiology, Pathophysiology and Endocrinology:

Organ physiology and pathophysiology Comparative physiology and pathophysiology Molecular aspects of endocrinology Fundamental mechanisms underlying ageing Metabolism, biological basis of metabolism related disorders Fundamental mechanisms underlying cancer Fundamental mechanisms underlying cardiovascular diseases Non-communicable diseases (except for neural/psychiatric and immunity-related disorders)

LS5 Neurosciences and Neural Disorders:

Neural cell function, communication and signalling, neurotransmission in neuronal and/or glial cells Systems neuroscience and computational neuroscience (e.g. neural networks, neural modelling) Neuronal development, plasticity and regeneration

Sensation and perception (e.g. sensory systems, sensory processing, pain)

Neural bases of cognitive processes (e.g. memory, learning, attention)

Neural bases of behaviour (e.g. sleep, consciousness, addiction)

Neurological disorders (e.g. neurodegenerative diseases, seizures)

Psychiatric disorders (e.g. affective and anxiety disorders, autism, psychotic disorders)

Neurotrauma and neurovascular conditions (including injury, blood-brain barrier, stroke, neurorehabilitation)

LS6 Immunity, Infection and Microbiology:

Innate immunity

Adaptive immunity

Regulation and effector functions of the immune response (e.g. cytokines, interferons and chemokines, inflammation, immune signalling, helper T cells, immunological memory, immunological tolerance, cell-mediated cytotoxicity, complement)

Immunological mechanisms in disease (e.g. autoimmunity, allergy, transplantation immunology, tumour immunology)

Biology of pathogens (e.g. bacteria, viruses, parasites, fungi)

Mechanisms of infection (e.g. transmission, virulence factors, host defences, immunity to pathogens, molecular pathogenesis)

Biological basis of prevention and treatment of infection (e.g. infection natural cycle, reservoirs, vectors, vaccines, antimicrobials)

Infectious diseases in animals and plants

LS7 Diagnostic tools, Therapies, Biotechnology and Public Health:

Imaging for medical diagnosis Genetic tools for medical diagnosis Other medical technologies for diagnosis and monitoring of diseases Pharmacology and pharmacogenomics (including drug discovery and design, drug delivery and therapy, toxicology) Applied gene and cell therapies, regenerative medicine Radiation therapy Analgesia and surgery Epidemiology and public health Environmental health, occupational medicine Health services, health care research, medical ethics