



HFSP AWARDS 2018

RESEARCH GRANTS

Research Grants (Program Grants and Young Investigators) provide 3 years of support for international teams involving at least two countries. Preference is given to intercontinental collaborations (rather than all N. American or all European teams). All team members are expected to broaden the character of their research compared to their ongoing research programs and interact with teams bringing expertise that is very different from their own so as to create novel approaches to problems in fundamental biology. All members of a Young Investigator team must be within 5 years of establishing their independent research group and no more than 10 years from their doctoral degree. Program Grant teams may consist of team members at any stage of their career as independent investigators.

Program Grants and Young Investigators are listed separately, alphabetically. The first named for each award is the Principal Investigator. Nationality is in parentheses when different from country in which the laboratory is located.

PROGRAM GRANTS

Controlling cellular biochemistry with electronic signals – a step towards bioelectronic hybrids

ALEXANDROV Kirill	Dept. of Cell & Molecular Biology Institute for Molecular Bioscience and Australian Institute of Bioengineering & Nanotechnology The University of Queensland St Lucia, Brisbane	Australia
KATZ Evgeny	Dept. of Chemistry & Biomolecular Science Clarkson University Potsdam, NY	USA
O' SULLIVAN Ciara	Dept. of Chemical Engineering Universitat Rovira i Virgili ICREA Tarragona	Spain (Ireland)

Integrating mechanotransduction in development: how does cell shape dictate chromatin remodeling?

CHABOUTE Marie-Edith	Institut De Biologie Moléculaire des Plantes CNRS UPR 2357 Strasbourg	France
ASNACIOS Atef	Matière et Systèmes Complexes UMR 7057 CNRS Université Paris-Diderot	France
JÖNSSON Henrik	Sainsbury Lab University of Cambridge	UK (Sweden)
TAMURA Kentaro	Dept. of Botany Kyoto University	Japan

Protein nanocages as single molecular reactors to understand biocatalysis in crowded environments

DE PABLO Pedro J.	Física de la Materia Condensada C-III Universidad Autónoma de Madrid	Spain
DOUGLAS Trevor	Dept. of Chemistry Indiana University Bloomington	USA
VICKERS Claudia	Australian Institute for Bioengineering & Nanotechnology The University of Queensland St Lucia, Brisbane	Australia

PROGRAM GRANTS

Probing persistence paradigms: synthetically, immunologically and ecologically

DREXLER Jan Felix	Institute of Virology Charité – Universitätsmedizin Berlin	Germany
DUPREX W Paul	Center for Vaccine Research University of Pittsburgh	USA (UK)
STREICKER Daniel	MRC-University of Glasgow Centre for Virus Research University of Glasgow	UK (USA)

Handling OXPPOS structural heterogeneity and metabolic plasticity

ENRÍQUEZ José Antonio	Myocardial Pathophysiology Area Fundación Centro Nacional de Investigaciones Cardiovasculares Carlos III-CNIC Madrid	Spain
BUSCH Karin	Dept. of Biology Institute of Molecular Cell Biology The Westfalian Wilhelms University of Muenster	Germany
EBERWINE James	Systems Pharmacology and Experimental Therapeutics University of Pennsylvania, Perelman School of Medicine Philadelphia	USA
MERCADER Nadia	Institute of Anatomy University of Bern	Switzerland

Sleep, the clock, and the brain: a neuromathematical approach

FORGER Daniel	Dept. of Mathematics University of Michigan Ann Arbor	USA
BROWN Steven A.	Chronobiology and Sleep Research Group Institute of Pharmacology and Toxicology University of Zurich	Switzerland (USA)
UEDA Hiroki R.	Dept. of Systems Pharmacology Graduate School of Medicine University of Tokyo	Japan

PROGRAM GRANTS

Quantitative dissection of molecular determinants of enhancer function

GOMPEL Nicolas	Dept. of Evolutionary Ecology Ludwig Maximilian University München Martinsried	Germany (France)
PREIBISCH Stephan	Berlin Institute for Medical Systems Biology Max Delbrück Center for Molecular Medicine Berlin	Germany
ROHS Remo	Depts. of Biological Sciences, Chemistry, Physics and Computer Science University of Southern California Los Angeles	USA (Germany)

From molecular stochasticity to robust cell divisions

HAMANT Olivier	Reproduction et Développement des Plantes Ecole Normale Supérieure Lyon	France
DUMAIS Jacques	Facultad de Ingeniería y Ciencias Universidad Adolfo Ibáñez Viña del Mar	Chile (Canada)
MJOLSNESS Eric	Dept. of Computer Science University of California - Irvine	USA
SCHNITTGER Arp	Dept. of Developmental Biology University of Hamburg Biozentrum Klein Flottbek Hamburg	Germany

New letters to the DNA alphabet

HANSEN Lars Hestbjerg	Environmental Microbial Genomics group Dept. of Environmental Science Aarhus University Roskilde	Denmark
DE CRECY-LAGARD Valerie	Dept. of Microbiology and Cell Science University of Florida Gainesville	USA
MOINEAU Sylvain	Dept. of Biochemistry, Microbiology and Bioinformatics Laval University Quebec	Canada

PROGRAM GRANTS

The architecture of the postsynaptic density

HOELZ André	Division of Chemistry and Chemical Engineering California Institute of Technology Pasadena	USA (Germany)
CLARIDGE-CHANG Adam	Dept. of Neuroscience and Behavioral Disorders Duke-NUS Medical School Singapore	Singapore (Australia)
COPLEY Richard	Biologie du Développement de Villefranche-sur-mer UMR 7009 CNRS UPMC Villefranche-sur-Mer	France
ROBINSON Robert	Structural Biology Lab Research Institute for Interdisciplinary Science Okayama University	Japan (UK)

Can evolution minimize spurious signaling crosstalk to reach optimal performance?

LANDRY Christian	Dept. of Biology IBIS, Laval University Quebec	Canada
TKACIK Gasper	Dept. of Theoretical Biophysics and Computational Neuroscience IST Austria Klosterneuburg	Austria (Slovenia)
VILLEN Judit	Dept. of Genome Sciences University of Washington Seattle	USA (Spain)

Dynamics of collective cell migration on curved surfaces

LIM Chwee Teck	Biomedical Engineering / MechanoBioEngineering Lab. National University of Singapore	Singapore
DELACOUR Delphine	Dept. of Cell Adhesion and Mechanics Institut Jacques Monod - CNRS UMR 7592 Université Paris Diderot	France
KIM Deok-Ho	Dept. of Bioengineering University of Washington Seattle	USA
PROST Jacques	Physical Chemistry Curie Institute – UMR 168 Paris	France

PROGRAM GRANTS

Fusion of evidence and expectation: untangling stimulus and prior information in the visual cortex

ORBAN Gergo	Computational System Neuroscience Lab MTA Wigner Research Centre for Physics Budapest	Hungary
GOLSHANI Peyman	Dept. of Neurology David Geffen School of Medicine University of California - Los Angeles	USA
LENGYEL Mate	Computational and Biological Learning Lab Dept. of Engineering University of Cambridge	UK (Hungary)
SINGER Wolf	Dept. of Neurophysiology Max Planck Institute for Brain Research Ernst Strüngmann Institute for Neuroscience Frankfurt am Main	Germany

Structure and biophysics of disordered domains mediating RNP granules: from atoms to cells

PAREKH Sapun	Dept. of Molecular Spectroscopy Max Planck Institute for Polymer Research Mainz	Germany (USA)
FAWZI Nicolas	Dept. of Molecular Pharmacology, Physiology and Biotechnology Brown University Providence	USA

Integrated view of photosynthetic control in algae in response to light- and metabolic-signals

PETROUTSOS Dimitris	Cell & Plant Physiology Lab Institute of Biosciences and Biotechnologies CEA Grenoble - CNRS	France (Greece)
GROSSMAN Arthur R.	Dept. of Plant Biology Carnegie Institution for Science Stanford University	USA
HE Chuan	Dept. of Chemistry The University of Chicago	USA (China)
NIKOLOSKI Zoran	Systems Biology and Mathematical Modeling Max Planck Institute of Molecular Plant Physiology Potsdam	Germany

PROGRAM GRANTS

Nanoscale heat transfer phenomena: new paradigm for intra- and intercellular signalling and shaping

PLAKHOTNIK Taras	School of Mathematics and Physics The University of Queensland St. Lucia, Brisbane	Australia
LANE Ellen Birgitte	Epithelial Biology Lab Institute of Medical Biology Singapore	Singapore (UK)
SUZUKI Madoka	Comprehensive Research Organization Waseda University Tokyo	Japan
ZEEB Vadim	Cytotechnology Lab Institute of Theoretical and Experimental Biophysics Russian Academy of Sciences Pushchino, Moscow region	Russia

Coupling of cell polarization and differentiation in organoids

RIVELINE Daniel	Dept. of Cell Physics IGBMC, Strasbourg University Illkirch	France
GRAPIN-BOTTON Anne	Center for Stem Cell Biology (DanStem) University of Copenhagen	Denmark (France)
HONIGMANN Oscar Alf	Dept. of Bio-Membrane Organization and Function Max Planck Institute for Molecular Cell Biology and Genetics Dresden	Germany
SANO Masaki	Dept. of Physics The University of Tokyo	Japan

Muscle building: dissecting tension-driven myofibrillogenesis in vitro, in vivo and in silico

SCHNORRER Frank	Muscle Dynamics Institute of Developmental Biology Marseille (IBDM) Aix-Marseille Université	France (Germany)
FRIEDRICH Benjamin M.	Biological Algorithms Group CFAED - Center For Advancing Electronics Dresden Technical University Dresden	Germany
POURQUIE Olivier	Dept. of Pathology, Dept. of Genetics Brigham and Women's Hospital Harvard Medical School Boston	USA (France)

PROGRAM GRANTS

Evolutionary mechanics of adhesion complexes

SOTOMAYOR Marcos	Dept. of Chemistry and Biochemistry The Ohio State University Columbus	USA (Chile)
LYNCH Vincent	Dept. of Human Genetics The University of Chicago	USA
RICO Felix	Force Microscopy Group Adhesion Inflammation Lab (LAI) Aix-Marseille University	France (Spain)

Mechanisms of chromatin reprogramming to totipotency

TACHIBANA-KONWALSKI Kikue	Institute of Molecular Biotechnology (IMBA) Austrian Academy of Sciences Vienna	Austria
MIRNY Leonid	Institute for Medical Engineering & Science and Physics Massachusetts Institute of Technology (MIT) Cambridge	USA
PETERS Jan-Michael	Mitosis and Chromosome Biology Lab Research Institute of Molecular Pathology (IMP) Vienna	Austria (Germany)
SAITOU Mitinori	Dept. of Anatomy and Cell Biology Graduate School of Medicine Kyoto University	Japan

Defying the reproduction-maintenance trade-off: Role of diet in long-lived termite reproductives

VASSEUR COGNET Mireille	Institute of Ecology and Environmental Sciences CNRS 7618, UPEC 7618, IRD 242, INRA 1392 Paris - Créteil	France
BORNBERG-BAUER Erich	Div. of Bioinformatics, School of Biological Sciences The Westfalian Wilhelms University of Muenster	Germany (Austria)
DE BEER Z. Wilhelm	Dept. of Microbiology Forestry and Agricultural Biotechnology Institute (FABI) University of Pretoria	South Africa
SUL Hei Sook	Dept. of Nutritional Sciences and Toxicology University of California - Berkeley	USA

PROGRAM GRANTS

Disentangling trophic and sexual transmission dynamics in a ubiquitous parasite

VYAS Ajai	School of Biological Sciences Nanyang Technological University Singapore	Singapore (India)
---------------------	--	----------------------

O'HANDLEY Ryan	Dept of Pathobiology, Infectious Disease and Public Health School of Animal and Veterinary Sciences The University of Adelaide Roseworthy	Australia
--------------------------	--	-----------

How cerebrospinal fluid physico-chemical properties impact body axis formation and scoliosis

WYART Claire	Spinal Sensory Signaling lab Brain and Spine Institute (ICM) Inserm U975, UMR UPMC CNRS 7225 Paris	France
------------------------	---	--------

GALLAIRE Francois	Lab of Fluid Mechanics and Instabilities (LFMI) Ecole Polytechnique Federale Lausanne (EPFL)	Switzerland (France)
-----------------------------	---	-------------------------

LEHTINEN Maria	Dept. of Pathology Boston Children's Hospital	USA
--------------------------	--	-----

Detecting inequity in dendritic cells through bio-inspired synthetic T cells

BASTINGS Maartje	Programmable Biomaterials Lab Institute of Materials Ecole Polytechnique Federale Lausanne (EPFL)	Switzerland (The Netherlands)
JUNGMANN Ralf	Dept. of Physics Ludwig Maximilian University München Max Planck Institute of Biochemistry Martinsried	Germany
PARISH Ian	Cancer Immunology Program Peter MacCallum Cancer Centre Melbourne	Australia

Evolutionary puzzles: Do microbes in the Atacama Desert harvest UV as an energy source?

FREEDMAN Kevin	Dept. of Bioengineering University of California-Riverside	USA
AZUA-BUSTOS Armando	Dept. of Planetology and Habitability Centro de Astrobiología, CSIC-INTA Madrid	Spain (Chile)

Tracing AID/APOBEC- and MSI-mediated hyper-mutagenesis in the clonal evolution of gastric cancer

JU Young Seok	Graduate School of Medical Science and Engineering and Lab. of Cancer Genomics Korea Advanced Institute of Science and Technology Daejeon	Korea
KOO Bon-Kyoung	Institute of Molecular Biotechnology (IMBA) Austrian Academy of Sciences Vienna	Austria (Korea)
SNIPPERT Hugo	Dept. of Molecular Cancer Research University Medical Center Utrecht	The Netherlands

Behavior-dependent optimization of the brain's metrics for space and time

KITAMURA Takashi	Dept. of Psychiatry University of Texas Southwestern Medical Center Dallas	USA (Japan)
ITO Hiroshi	Memory and Navigation Circuits Group Max Planck Institute for Brain Research Frankfurt am Main	Germany (Japan)
KROPFF Emilio	Neural Plasticity Lab Fundacion Instituto Leloir - IIBBA, CONICET Buenos Aires	Argentina

Molecular control of cortical homeostasis and cell polarization

MURRELL Michael	Dept. of Biomedical Engineering Yale University / Systems Biology Institute West Haven	USA
BANERJEE Shiladitya	Dept. of Physics and Astronomy Institute for the Physics of Living Systems University College London	UK (India)
DIZ-MUÑOZ Alba	Cell Biology and Biophysics Unit European Molecular Biology Lab (EMBL) Heidelberg	Germany (Spain)

Remembering the future: Interactions between sensation, memory, and behavior

SALEEM Aman	Dept. of Experimental Psychology University College London	UK
BERMAN Gordon	Dept. of Biology Emory University Atlanta	USA
MACKE Jakob	Centre for Cognitive Science and Institute for Psychology Technical University Darmstadt	Germany

Visual circuit adaptations to natural environments and behaviors in zebrafish and cichlids

THIELE Tod	Dept. of Biological Sciences University of Toronto Scarborough Toronto	Canada
ARRENBURG Aristides	Systems Neurobiology Group Institute for Neurobiology Werner Reichardt Centre for Integrative Neuroscience University of Tuebingen	Germany
COOPER Emily	Dept. of Psychological and Brain Sciences Dartmouth College Hanover, NH	USA
JUNTTI Scott	Dept. of Biology University of Maryland College Park	USA

Active morphological colloids for probing and tailoring intracellular antigen processing

VAN DEN BOGAART Geert	Dept. of Tumor Immunology Radboud University Medical Center Radboud Institute for Molecular Life Sciences Nijmegen	The Netherlands
SACANNA Stefano	Dept. of Chemistry New York University	USA
THUTUPALLI Shashi	Simons Centre for the Study of Living Machines National Centre for Biological Sciences (NCBS) Tata Institute for Fundamental Research Bangalore	India