



HFSP AWARDS 2017

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

A dung beetle's life: how miniature creatures perform extraordinary feats with limited resources

BAIRD Emily	The Lund Vision Group, Dept. of Biology Lund University	SWEDEN (AUSTRALIA)
GORB Stanislav N.	Dept. of Functional Morphology and Biomechanics Zoological Institute, University of Kiel	GERMANY
MANOONPONG Poramate	Embodied Artificial Intelligence & Neurorobotics Lab, Centre for BioRobotics The Maersk Mc-Kinney Moller Institute The University of Southern Denmark Odense	DENMARK (THAILAND)

Exploring the concept of adaptive immunity to viruses in mosquitoes

BONIZZONI Mariangela	Dept. of Biology and Biotechnology University of Pavia	ITALY
SOUZA-NETO Jayme	Vector Functional Genomics & Microbiology lab. São Paulo State University Botucatu	BRAZIL
VAN RIJ Ronald	Dept. of Medical Microbiology Radboud University Medical Center Nijmegen	THE NETHERLANDS

Imaging the neurobiology of numerosity - the evolution of counting

BRENNAN Caroline	School of Biological and Chemical Sciences Queen Mary University of London	UK
FRASER Scott E.	Translational Imaging Center University of Southern California Los Angeles	USA
VALLORTIGARA Giorgio	Centre for Mind/Brain Sciences University of Trento Rovereto	ITALY

Dynamic rearrangement of protein interactions within macromolecular complexes in vivo

BROWN Nicholas H.	Dept. of Physiology, Development and Neuroscience University of Cambridge	UK
GIANNONE Grégory	Interdisciplinary Institute for NeuroScience CNRS, University of Bordeaux	FRANCE

PROGRAM GRANTS

Novel method for high-resolution imaging of single biological molecules

CHAPMAN Henry	Center for Free-Electron Laser Science DESY, University of Hamburg	GERMANY (UK)
FORSYTH Trevor	Macromolecular Structure Group EPSAM/ISTM, Keele University	UK
MILLANE Rick	Electrical and Computer Engineering University of Canterbury Christchurch	NEW ZEALAND
SEEMAN Nadrian	Dept. of Chemistry New York University	USA

Rebuilding and reimagining the last common ancestor, a ribo-organism

ELLINGTON Andrew	The Ellington Lab, Dept. of Chemistry and Biochemistry The University of Texas at Austin	USA
JEWETT Michael Christopher	Dept. of Chemical and Biological Engineering Northwestern University Evanston	USA
MARLIERE Philippe	Xenobiology Team Institute of Systems and Synthetic Biology Genopole Evry	FRANCE
SUGA Hiroaki	Dept. of Chemistry Graduate School of Science The University of Tokyo	JAPAN

Extracellular vesicles and their role in breast cancer bone metastasis

FISCHBACH-TESCHL Claudia	Meinig School of Biomedical Engineering Cornell University Ithaca	USA (GERMANY)
ADDADI Lia	Dept of Structural Biology Weizmann Institute of Science Rehovot	ISRAEL
ESTROFF Lara A.	Dept. of Materials Science and Engineering Cornell University Ithaca	USA
FRATZL Peter	Dept. of Biomaterials MPI of Colloids and Interfaces Potsdam	GERMANY (AUSTRIA)

PROGRAM GRANTS

'Forcing' changes in the adult stem cell transcriptome

GILBERT Penney	Institute of Biomaterials and Biomedical Engineering University of Toronto	CANADA (USA)
BETZ Timo	Institute of Cell Biology University of Münster	GERMANY
DARZACQ Xavier	Dept. of Molecular and Cell Biology University of California Berkeley	USA (FRANCE)

Revealing universal surface patterning mechanisms in plants and animals

GLOVER Beverley	Dept. of Plant Sciences University of Cambridge	UK
CROSBY Alfred	Dept. of Polymer Science & Engineering University of Massachusetts Amherst	USA
MILINKOVITCH Michel	Lab. of Artificial & Natural Evolution Dept of Genetics & Evolution University of Geneva	SWITZERLAND (BELGIUM)

Defining the capacity of cells to keep the proteome folded over space and time

HATTERS Danny	Dept. of Biochemistry and Molecular Biology The University of Melbourne Parkville	AUSTRALIA
DICKSON Alex	Dept. of Biochemistry and Molecular Biology Michigan State University East Lansing	USA (CANADA)
EBBINGHAUS Simon	Dept. of Chemistry, Institute for Physical Chemistry II Ruhr-University Bochum	GERMANY
NICHOLAS Hannah	School of Life and Environmental Sciences University of Sydney	AUSTRALIA

PROGRAM GRANTS

The mechanobiology of obesity

HONORÉ Eric	Institute of Molecular and Cellular Pharmacology CNRS, Valbonne	FRANCE
DISCHER Dennis E.	Biophysical Engineering Lab. University of Pennsylvania Philadelphia	USA
GRASHOFF Carsten	Molecular Mechanotransduction Group MPI of Biochemistry Martinsried	GERMANY
XU Aimin	State Key Lab. of Pharmaceutical Biotechnology Dept. of Pharmacology and Pharmacy The University of Hong Kong	HONG KONG, CHINA

The physical basis of autophagosome biogenesis

HURLEY James H.	Dept. of Molecular & Cell Biology University of California Berkeley	USA
HUMMER Gerhard	Dept. of Theoretical Biophysics MPI of Biophysics Frankfurt am Main	GERMANY (AUSTRIA)
MARTENS Sascha	Max F Perutz Laboratories University of Vienna	AUSTRIA (GERMANY)
YOSHIMORI Tamotsu	Dept. of Genetics Graduate School of Medicine Osaka University Suita	JAPAN

Robotics-inspired biology: decoding flexibility of motor control by studying amphibious locomotion

IJSPEERT Auke	Biorobotics Lab., Interfaculty Institute of Bioengineering Ecole Polytechnique Federale de Lausanne	SWITZERLAND (THE NETHERLANDS)
ISHIGURO Akio	Research Institute of Electrical Communication Tohoku University Sendai	JAPAN
STANDEN Emily	Dept. of Biology University of Ottawa	CANADA

PROGRAM GRANTS

Photochemical trap and high-resolution imaging of transient chromatin complexes from living cells

LLORCA Oscar	Dept. of Chemical and Physical Biology Center for Biological Research (CIB) Spanish National Research Council (CSIC) Madrid	SPAIN
NEUMANN Heinz	Applied Synthetic Biology Group MPI for Molecular Physiology Dortmund	GERMANY
SKEHEL Mark	Cell Biology Division MRC Lab. of Molecular Biology Cambridge	UK

Elucidating the molecular logic of membrane-free compartment function and assembly

MICHNICK Stephen W.	Dept. of Biochemistry University of Montreal	CANADA
ALBERTI Simon	Alberti Lab. MPI of Molecular Cell Biology and Genetics Dresden	GERMANY
PAPPU Rohit V.	Dept. of Biomedical Engineering and Center for Biological Systems Engineering Washington University in St.Louis	USA

3D genome organization and transcription regulation in hippocampal circuits

RUAN Yijun	Genomic Medicine, The Jackson Laboratory University of Connecticut Health Center Farmington	USA
BARCO Angel	Institute of Neurosciences Miguel Hernández University Spanish National Research Council (CSIC) San Juan De Alicante	SPAIN
WILCZYNSKI Grzegorz	Lab. of Molecular and Systemic Neuromorphology Nencki Institute Warsaw	POLAND

PROGRAM GRANTS

Generating and understanding de novo enzyme functionalities using ancestral proteins as scaffolds

SANCHEZ RUIZ Jose Manuel	Dept. of Physical Chemistry Faculty of Sciences University of Granada	SPAIN
GAUCHER Eric	School of Biology Georgia Institute of Technology Atlanta	USA
KAMERLIN Shina Caroline Lynn	Dept. of Cell and Molecular Biology Uppsala University	SWEDEN (UK)
SEELIG Burckhard	Dept. of Biochemistry, Molecular Biology & Biophysics BioTechnology Institute, University of Minnesota St. Paul	USA (GERMANY)

A PURE-ly synthetic ribosome biogenesis in DNA compartments on a chip

SHIMIZU Yoshihiro	Lab. for Cell-Free Protein Synthesis RIKEN Quantitative Biology Center (QBiC) Suita	JAPAN
BAR-ZIV Roy	Dept. of Materials & Interfaces Faculty of Chemistry Weizmann Institute of Science Rehovot	ISRAEL

Collective behaviour and information transmission in heterogeneous societies

THORNTON Alex	Centre for Ecology and Conservation University of Exeter Penryn	UK
OUELLETTE Nicholas	Dept. of Civil and Environmental Engineering Stanford University	USA
VAUGHAN Richard	School of Computing Science Simon Fraser University Burnaby	CANADA

PROGRAM GRANTS

Phenotypic transitions in cooperative societies: an evolutionary and molecular approach

TUNG Jenny	Dept. of Evolutionary Anthropology Duke University Durham	USA
BARREIRO Luis	Dept. of Pediatrics CHU Sainte Justine Research Center University of Montreal	CANADA (PORTUGAL)
CLUTTON-BROCK Tim	Large Animal Research Group, Dept. of Zoology University of Cambridge	UK
MUKHERJEE Sayan	Dept. of Statistical Science, Mathematics and Computer Science Duke University Durham	USA

How to make a heart beat? Basic principles for novelties and parallel innovations in cephalopods

YOSHIDA Masa-Aki	Marine Biological Science Section, Education and Research Center for Biological Resources Faculty of Life and Environmental Science Shimane University	JAPAN
DEBREGEAS Georges	LJP - Jean Perrin Lab. UPMC - University Pierre and Marie Curie, CNRS Paris	FRANCE
EDSINGER Eric	Josephine Bay Paul Center, Sogin Lab. Marine Biological Lab. Woods Hole	USA
MOROZ Leonid	Dept. of Neuroscience The Whitney Lab. for Marine Bioscience & College of Medicine University of Florida, St. Augustine & Gainesville	USA

YOUNG INVESTIGATORS

The molecular circadian clock as a causal mediator of sleep-regulated neurophysiology and cognition

HAVEKES Robbert	Groningen Institute for Evolutionary Life Sciences Faculty of Science and Engineering University of Groningen	THE NETHERLANDS
ATON Sara	Dept. of Molecular, Cellular and Developmental Biology University of Michigan Ann Arbor	USA
KIM Jae Kyoung	Dept. of Mathematical Sciences Korea Advanced Institute of Science and Technology Daejeon	KOREA
ZURBRIGGEN Matias	Institute of Synthetic Biology University of Düsseldorf	GERMANY (ARGENTINA)

Integrative single-cell analysis of prefrontal output neurons in goal-driven behavior

KIM Sung-Yon	Dept. of Biophysics and Chemical Biology Seoul National University	KOREA
AMIT Ido	Dept. of Immunology Weizmann Institute of Science Rehovot	ISRAEL
YIZHAR Ofer	Dept. of Neurobiology Weizmann Institute of Science Rehovot	ISRAEL

Mechanical regulated gene expression during T-cell activation

KLOTZSCH Enrico	EMBL Node in Single Molecule Science School of Medical Sciences Australian Centre for Nanomedicine and ARC Centre of Excellence in Advanced Molecular Imaging University of New South Wales Kensington	AUSTRALIA (GERMANY)
RIES Jonas	Dept. of Cell Biology and Biophysics / Cellular Nanoscopy EMBL Heidelberg	GERMANY

YOUNG INVESTIGATORS

Fully synthetic self-regulated cytoskeleton

MONTENEGRO Javier	Center for Research in Chemical Biology and Molecular Materials University of Santiago de Compostela	SPAIN
DEVARAJ Neal	Dept. of Chemistry and Biochemistry University of California San Diego La Jolla	USA
TAKEUCHI Toshihide	Institute for Chemical Research Osaka University Suita	JAPAN

Building a theory of shifting representations in the mammalian brain

O'LEARY Timothy	Dept. of Engineering University of Cambridge	UK
HARVEY Christopher	Dept. of Neurobiology Harvard Medical School Boston	USA
ZIV Yaniv	Dept. of Neurobiology Weizmann Institute of Science Rehovot	ISRAEL

Do seabirds use infrasound to navigate the vast ocean?

PATRICK Samantha	Seabird Ecology Group, Marine Biology School of Environmental Sciences University of Liverpool	UK
ASSINK Jelle	R&D Dept. of Seismology and Acoustics Royal Netherlands Meteorological Institute - KNMI De Bilt	THE NETHERLANDS
BASILLE Mathieu	Fort Lauderdale Research and Education Center University of Florida Fort Lauderdale	USA (FRANCE)
CLUSELLA-TRULLAS Susana	Dept. of Botany and Zoology Stellenbosch University	SOUTH AFRICA (SPAIN)

YOUNG INVESTIGATORS

Midichloria mitochondrii, unique intramitochondrial bacterium and novel tool to explore mitochondria

SASSERA Davide	Dept. of Biology and Biotechnology University of Pavia	ITALY
JEX Aaron	Population Health and Immunity Division The Walter and Eliza Hall Institute Parkville	AUSTRALIA
RIEMER Jan	Institute for Biochemistry University of Cologne	GERMANY
STAVRU Fabrizia	Bacteria-Cell Interactions Lab. Pasteur Institute - CNRS Paris	FRANCE (ITALY)

Regulation of photosynthetic light harvesting: how does protein conformation control photophysics?

SCHLAU-COHEN Gabriela	Dept. of Chemistry Massachusetts Institute of Technology Cambridge	USA
ISHIZAKI Akihito	Institute for Molecular Science National Institutes of Natural Sciences Okazaki	JAPAN
JOHNSON Matthew	Dept. of Molecular Biology and Biotechnology University of Sheffield	UK

CHRomatin dynamics and nuclear METabolism: an intimate interplay uncovered by non-linear optics

STRINGARI Chiara	Lab. for Optics and Biosciences Ecole Polytechnique - CNRS Palaiseau	FRANCE (ITALY)
AGUILAR ARNAL Lorena	Dept. of Molecular Biology and Biotechnology Institute of Biomedical Sciences UNAM - National Autonomous University of Mexico Mexico City	MEXICO (SPAIN)