



HFSP AWARDS 2010

RESEARCH GRANTS

- Program Grants and Young Investigators are listed separately
- 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

The calcified byssus of Anomia: a unique solution to underwater adhesion

BIRKEDAL Dept. of Chemistry DENMARK
Henrik Aarhus University

WAITE Dept. of Molecular, Cell, Developmental Biology USA
Herbert University of California, Santa Barbara

Analysis of “cytoplasmic freezing” – preserving cellular architecture

BRUNNER Cell Biology and Biophysics Unit GERMANY
Damian EMBL (SWITZERLAND)
Heidelberg

FLORIN Center for Nonlinear Dynamics and Dept. of Physics USA
Ernst-Ludwig University of Texas at Austin (GERMANY)

HOENGER Dept. of Molecular, Cellular and Developmental Biology USA
Andreas University of Colorado at Boulder (SWITZERLAND)

A microfluidic, small molecule approach to perturbation of the pluripotency transcription network

CHAMBERS MRC Centre for Regenerative Medicine UK
Ian and Institute for Stem Cell Research
University of Edinburgh

LEE Dept. of Bioengineering USA
Luke P. University of California, Berkeley

SCHROEDER Institute of Stem Cell Research GERMANY
Timm Helmholtz Zentrum Muenchen - German Research Centre
Munich / Neuherberg

WANDLESS Dept. of Chemical and Systems Biology USA
Thomas Stanford University

Dissecting the molecular mechanisms regulating somatic cell reprogramming

COSMA Dept. of Gene Regulation and Function ITALY
Maria Pia Telethon Institute of Genetics and Medicine - TIGE
Naples

CALIFANO Joint Centers for Systems Biology USA
Andrea Columbia University (ITALY)
Herbert Irving Comprehensive Cancer Center, New York

Central auditory processing: from single cells to perception and learning of complex sounds

DOUPE Allison	Dept. of Physiology and Psychiatry University of California, San Francisco	USA (CANADA)
BIALEK William S.	Dept. of Physics Princeton University New Jersey	USA
WILD John Martin	Dept. of Anatomy with Radiology University of Auckland	NEW ZEALAND

Spatiotemporal control of neuronal activity with holographic patterned illumination

EMILIANI Valentina	Neurophysiology and New Microscopies Lab. University Paris Descartes	FRANCE (ITALY)
CURTIS Jennifer	School of Physics/ Molecular and Cell Biophysics Lab. Georgia Institute of Technology Atlanta	USA
ISACOFF Ehud Y.	Dept. of Molecular and Cell Biology University of California Berkeley	USA
PEDARZANI Paola	UCL Neuroscience, Physiology and Pharmacology University College London	UK (ITALY)

Mechanistic analysis of neuronal circuit structure and function

FRIEDRICH Rainer	Dept. of Neurobiology Friedrich Miescher Institute for Biomedical Research Basel	SWITZERLAND (GERMANY)
SEUNG H. Sebastian	Dept. of Brain and Cognitive Sciences Massachusetts Institute of Technology Howard Hughes Medical Institute, Cambridge	USA
YOSHIHARA Yoshihiro	Lab. for Neurobiology of Synapse RIKEN Brain Science Institute Saitama	JAPAN

The regulation of growth as a driving force for patterning and regeneration

GALLIOT Brigitte	Dept. of Zoology and Animal Biology University of Geneva	SWITZERLAND
DEUTSCH Andreas	Centre for Information Services and High Performance Computing Technical University Dresden	GERMANY
IRVINE Kenneth D.	Waksman Institute Rutgers University HHMI, Piscataway	USA
MORATA PÉREZ Gines	Centro de Biología Molecular Consejo Superior de Investigaciones Científicas Universidad Autónoma de Madrid	SPAIN
TANAKA Elly	Dept. of Regeneration Center for Regenerative Therapies Dresden University of Technology	GERMANY (USA)

Optogenetics for small G-proteins and protein kinases in neuroscience

KASAI Haruo	Lab. of Structural Physiology Center for Disease Biology and Integrative Medicine Faculty of Medicine, University of Tokyo	JAPAN
HAHN Klaus	Dept. of Pharmacology University of North Carolina at Chapel Hill	USA
KUHLMAN Brian	Dept. of Biochemistry and Biophysics University of North Carolina at Chapel Hill	USA

Structure of nascent peptides and kinetic control of co-translational folding on the ribosome

KOMAR Anton	Center for Gene Regulation in Health and Disease Dept. of Biology Cleveland State University	USA (RUSSIA)
RODNINA Marina	Dept. of Physical Biochemistry Max Planck Institute of Biophysical Chemistry Goettingen	GERMANY
SCHWALBE Harald	Institute for Organic Chemistry and Chemical Biology Center for Biomolecular Magnetic Resonance (BMRZ) Johann Wolfgang Goethe-University Frankfurt	GERMANY

Odor recognition in natural environments: Bayesian inference from insects to mammals

MAINEN Zachary	Systems Neuroscience Lab. Champalimaud Neuroscience Programme Institute Gulbenkian de Ciência, Oeiras	PORTUGAL (USA)
LOUIS Matthieu	Lab. of Sensory Systems and Behaviour EMBL-CRG Systems Biology Unit Center for Genomic Regulation, Barcelona	SPAIN (BELGIUM)
POUGET Alexandre	Dept. of Brain and Cognitive Science University of Rochester	USA (FRANCE)

Information processing by signal transduction and gene regulatory networks in mammalian cells

MARTINEZ-ARIAS Alfonso	Dept. of Genetics Cambridge University	UK (SPAIN)
GUNAWARDENA Jeremy	Dept. of Systems Biology Harvard Medical School Boston	USA (UK)
HADJANTONAKIS Anna-Katerina	Developmental Biology Program Sloan-Kettering Institute New York	USA (UK)

Dynamical coordination in a multi-domain, peptide antibiotic mega-synthetase

MOOTZ Henning	Faculty of Chemistry and Lab of Chemical Biology and Biochemistry TU Dortmund University	GERMANY
KOMATSUZAKI Tamiki	Research Institute for Electronic Science Hokkaido University Sapporo	JAPAN
YANG Haw	Dept. of Chemistry Princeton University	USA (CHINESE TAIPEI)

Optical interrogation of motor cortex to provide insight into neuronal control of movement.

MURPHY Timothy H.	Dept. of Psychiatry University of British Columbia Vancouver	CANADA (USA)
BOYDEN Edward	Synthetic Neurobiology Group MIT Media Lab, Biological Engineering, Brain and Cognitive Sciences Cambridge	USA
MARTIN Kevan A. C.	Institute of Neuroinformatics University of Zurich Swiss Federal Institute of Technology	SWITZERLAND (UK)

Nanoscale photoactivation and imaging of synaptic physiology

NÄGERL Valentin	Dept. of Life Sciences University of Bordeaux	FRANCE (GERMANY)
HELL Stefan	Dept. of NanoBiophotonics Max Planck Institute for Biophysical Chemistry Goettingen	GERMANY
LI Wen-Hong	Dept. of Cell Biology University of Texas Southwestern Medical Center Dallas	USA

Mitotic Spindles in Nematodes: From Comparative Biophysics to Evolutionary Biology

NEEDLEMAN Daniel	School of Engineering and Applied Sciences Harvard University Northwest Building, Cambridge	USA
DELATTRE Marie	Lab. of Molecular Biology of the Cell Ecole Normale Supérieure de Lyon- CNRS	FRANCE
MÜLLER-REICHERT Thomas	Electron Microscopy Lab. MPI of Molecular Cell Biology and Genetics Dresden	GERMANY

Spatio-temporal Rho GTPase signaling to the cytoskeleton during neuronal development and repair

PERTZ Olivier	Cell Migration Lab. Institute of Biochemistry and Genetics Dept. Biomedicine/ University of Basel	SWITZERLAND
DANUSER Gaudenz	Dept. of Cell Biology The Scripps Research Institute La Jolla	USA (SWITZERLAND)
JEON Noo Li	Dept. of Mechanical Engineering Seoul National University	REPUBLIC OF KOREA (USA)

Deliberative decision-making in rats

REDISH A. David	Dept. of Neuroscience University of Minnesota Minneapolis	USA
DUDCHENKO Paul	Dept. of Psychology Center for Cognitive and Neural Systems University of Stirling	UK (USA)
LAUWEREYNS Jan	School of Psychology Victoria University of Wellington	NEW ZEALAND (BELGIUM)
TSUDA Ichiro	Research Center for Integrative Mathematics Hokkaido University Sapporo	JAPAN
WOOD Emma	Centre for Cognitive and Neural Systems University of Edinburgh	UK

An interaction map of *C. elegans* dauer pheromone components and chemoreceptors

SENGUPTA Piali	Dept. of Biology and National Center for Behavioral Genomics Brandeis University Waltham	USA (INDIA)
CLARDY Jon	Dept. of Biological Chemistry and Molecular Pharmacology, Harvard Medical School Harvard University, Boston	USA
TOUHARA Kazushige	Dept. of Integrated Biosciences The University of Tokyo Chiba	JAPAN

Role of genetic interactions and recombination in experimental evolution of *Caenorhabditis elegans*

TEOTONIO Henrique	Dept. of Evolutionary Genetics Instituto Gulbenkian de Ciencia Oeiras	PORTUGAL
ROCKMAN Matthew	Dept. of Biology and Center for Genomics and Systems Biology New York University	USA
SHRAIMAN Boris	Kavli Institute for Theoretical Physics University of California Santa Barbara	USA

An Interdisciplinary Approach to Understand the Development and Evolution of Leaf Shapes

TSIANTIS Miltos	Dept. of Plant Sciences University of Oxford	UK (GREECE)
PRUSINKIEWICZ Przemyslaw	Dept. of Computer Science University of Calgary	CANADA

Chiral effects in DNA supercoiling

VAN DER HEIJDEN Gert	Dept. of Civil, Environmental and Geomatic Engineering University College London	UK (NETHERLANDS)
KORNYSHEV Alexei	Dept. of Chemistry Imperial College London	UK (RUSSIA)
WUITE Gijs J.L	Dept. of Exact Sciences/Physics of Complex Systems VU University Amsterdam	NETHERLANDS
ZECHIEDRICH Lynn	Dept. of Molecular Virology and Microbiology, Biochemistry, Pharmacology Baylor College of Medicine Houston	USA

Synthetic Biology of cell division: reconstructing the bacterial division machinery in the test tube

VICENTE Miguel	Dept. of Microbial Biotechnology Centro Nacional de Biotecnología Consejo Superior de investigaciones científicas Madrid	SPAIN
MARGOLIN William	Dept. of Microbiology and Molecular Genetics University of Texas Medical School at Houston	USA
RIVAS German	Dept. of Chemical and Physical Biology Centro de Investigaciones Biológicas, CSIC Madrid	SPAIN
SCHWILLE Petra	Dept. of Biophysics/BIOTEC TU Dresden	GERMANY

Viral docking and maturation in whole bacterial cells at near atomic resolution and in 4 dimensions

VIOLLIER Patrick	Dept. of Microbiology and Molecular Medicine Faculty of Medicine University of Geneva	SWITZERLAND
HOWARD Martin	Dept. of Systems Biology John Innes Centre Norwich	UK
WRIGHT Elizabeth	Division of Pediatric Infectious Diseases School of Medicine Emory University, Atlanta	USA

Cycle-Quant: Defining Cell Cycle Progression and Responses to Perturbations

WOLTHUIS Rob	Dept. of Molecular Biology- B7 The Netherlands Cancer Institute Amsterdam	NETHERLANDS
CARPENTER Anne	Carpenter Lab. Broad Institute of Harvard and MIT Cambridge	USA
CHANG Young-Tae	Dept. of Chemistry National University of Singapore	SINGAPORE (REPUBLIC OF KOREA)

YOUNG INVESTIGATORS

Nanoelectronic biosensors: novel tools to watch individual enzymes at work

BLANK Kerstin	Dept. of Molecular Materials Institute for Molecular Materials Radboud University Nijmegen	NETHERLANDS (GERMANY)
MINOT Ethan	Dept. of Physics Oregon State University Corvallis	USA

Fundamental Principles of Dynamic Running Gaits

DALEY Monica A.	Structure and Motion Lab. Royal Veterinary College Hatfield	UK (USA)
HURST Jonathan	Dept. of Mechanical, Industrial and Manufacturing Engineering Oregon State University Corvallis	USA

Stem Cell Differentiation in 3D Nanostructured Environments

ENGLER Adam	Dept. of Bioengineering University of California, San Diego La Jolla	USA
BATTAGLIA Giuseppe	Biomaterials and Tissue Engineering Group Dept. of Engineering Materials University of Sheffield The Kroto Research Institute	UK (ITALY)

Molecular architecture and mechanical properties of the kinetochore: a biophysical approach.

GREGAN Juraj	Dept. of Chromosome Biology Max F. Perutz Labs University of Vienna	AUSTRIA (SLOVAKIA)
CIMINI Daniela	Dept. of Biological Sciences Virginia Polytechnic Institute and State University Blacksburg	USA (ITALY)
TOLIC-NORRELYKKE Iva M.	Tolic-Norrelykke Lab. MPI of Molecular Cell Biology and Genetics Dresden	GERMANY (CROATIA)

Mechanochemistry of DNA strand separation by helicases

KOVACS Dept. of Biochemistry HUNGARY
Mihaly Eotvos University
Budapest

NEUMAN Lab. of Molecular Biophysics USA
Keir National Heart Lung and Blood Institute
National Institutes of Health, Bethesda

Towards an integrated model of phenotypic evolution: the genetic architecture of network dynamics

LANDRY Institut de Biologie Integrative et des Systemes CANADA
Christian Dept. de Biologie
Universite Laval, Quebec

MOHAN Dept. of Computational Systems Biology UK
Madan Babu MRC Lab. of Molecular Biology (INDIA)
Cambridge

RIFKIN Dept. of Ecology, Behavior, and Evolution USA
Scott Division of Biological Sciences
University of California, San Diego, La Jolla

Spatial control of the mitotic checkpoint clock - dissecting the role of a spindle matrix

MAIATO Institute for Molecular and Cell Biology PORTUGAL
Helder University of Porto

CHEESEMAN Dept. of Biology USA
Iain Whitehead Institute for Biomedical Research
MIT, Cambridge

WEISS Cellular Biophysics Group GERMANY
Matthias German Cancer Research Center
c/o BioQuant, Heidelberg

A new stress-induced program of senescence and its multi-dimensional regulation.

NARITA Cellular Senescence and Tumour Suppressors Lab. UK
Masashi Cancer Research UK (JAPAN)
Cambridge Research Institute

OHBAYASHI Division of Animal Resources and development JAPAN
Tetsuya Research Center for Bioscience and Technology
Tottori University, Yonago-City

Characterization of light-dependent rhythmic processes in the marine environment

TESSMAR-RAIBLE Kristin	Dept. of Microbiology, Immunobiology and Genetics Max F. Perutz Lab. University of Vienna	AUSTRIA (GERMANY)
FALCIATORE Angela	Lab. of Ecology and Evolution of Plankton Stazione Zoologica Anton Dohrn Naples	ITALY
ISHIKAWA Tomoko	Dept. of Radiation Biology and Medical Genetics Osaka University	JAPAN
OLIVERI Paola	Dept. of Genetics, Evolution and Environment University College London	UK (ITALY)