Research Grants, Program and Early Career, 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 an Early Career 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 and Early Career Grants 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.
Trapped in ice

BABIN
Marcel
Dept. of Biology
Takuvik International Research Laboratory
Laval University, Quebec

FRIPiAT
Francois
Dept. of Geosciences, Environment and Society
Université libre de Bruxelles

MARÉCHAL
Eric
Cell and Plant Physiology Lab.
University of Grenoble – Alpes

PRAKASH
Manu
Dept. of Bioengineering
Stanford University (India)

Discovering the chemical space of bioactive modified nucleotides and their enzymatic repertoire

BELTRAO
Pedro
Dept. of Biology
ETH Zürich

CORREIA-MELO
Clara
Dept. of Microbiome in Ageing
Leibniz Institute on Aging
Fritz Lipmann Institute, Jena

FUGGER
Kasper
Dept. of Cancer Biology
University College London Cancer Institute (Denmark)

Probing the evolutionary ecology of cognition through High-Density Diffuse Optical Tomography

BOTERO
Carlos
Dept. of Integrative Biology
The University of Texas at Austin

CULVER
Joseph
Dept. of Radiology
Washington University in St.Louis

GÜNTÜRKÜN
Onur
Dept. of Psychology and
Institute for Cognitive Neuroscience
Ruhr University Bochum

Deciphering the role of ion distribution in mitochondria for long-term memory formation

BUSCH
Karin
Dept. of Biology
University of Münster

JONAS
Elizabeth
Dept. of Internal Medicine
Yale University
New Haven

TOMKINSON
Nicholas
Dept. of Pure and Applied Chemistry
University of Strathclyde
Glasgow
3D-bioprinting meets machine learning: a novel tool to decipher the determinants of viral tropism.

**CASTILLO**
Gabriel
Plant Sciences building, School of Biosciences
University of Nottingham
UK (Spain)

**STEGMAYER**
Georgina
Dept. of Informatics
National University of the Littoral
Santa Fe Capital
Argentina

**VALLI**
Adrian
Dept. of Plant Molecular Genetics
National Center of Biotechnology (CSIC)
Madrid
Spain (Argentina)

Unambiguous Biosignatures for Life Detection

**CLEAVES**
Henderson
Dept. of Chemistry
The Howard University
Washington
USA

**MCMAHON**
Sean
School of Physics and Astronomy
University of Edinburgh
UK

**VAN ZUILEN**
Mark
Laboratoire Geo-Ocean
Institut National des Sciences de l’Univers (INSU)
CNRS Plouzané
France

Illuminating Microbial Communication Networks: The Phycosphere lab

**COUDRET**
Christophe
Softmat Lab.
Université Toulouse III
France

**RAINHA**
Jean-Baptiste
Climate Change Cluster
University of Technology Sydney
Australia (France)

**TUVAL**
Idan
Mediterranean Institute for Advanced Studies
CSIC Esporles
Spain

**WHEELER**
Glen
Marine Biological Association of the UK (MBA)
Plymouth
UK

Decoding invisibility: from genome evolution to tissue optical properties in transparent fish

**DEL BENE**
Filippo
Dept. of Developmental Biology
Institut de la Vision
Paris
France (Italy)

**JOHNSON**
Sonke
Dept. of Biology
Duke University
Durham
USA

**RAMIALISON**
Mirana
Stem Cell Medicine
Murdoch Childrens Research Institute
Parkville
Australia (Madagascar)
Cross-talk between the skin microbiome, immunity and sensory innervation in neurophysiology

DI GIOVANNI
Simone
Dept. of Brain Sciences
Imperial College of Science, Technology and Medicine
London

ITALY

ELINAV
Eran
Dept. of Systems Immunology
Weizmann Institute of Science
Rehovot

ISRAEL

FAN
Rong
Dept. of Biomedical Engineering
Yale University
New Haven

USA

Optogenetic control of organelle “chatter” and effects on calcium dynamics in human cardiomyocytes

ENTCHEVA
Emilia
Dept. of Biomedical Engineering
The George Washington University
Washington

USA

COLMAN
Michael
Dept. of Biomedical Sciences
The University of Leeds

UK

SATO
Moritoshi
Dept. of Life Sciences
The University of Tokyo

JAPAN

Mechanisms and origins of glycosylation in giant viruses

FISCHER
Matthias
Dept. of Biomolecular Mechanisms
MPI for Medical Research
Heidelberg

GERMANY

DE CASTRO
Cristina
Dept. of Chemical Sciences
University of Naples Federico II
Napoli

ITALY

OGATA
Hiroyuki
Institute for Chemical Research
Kyoto University, Uji Campus

JAPAN

Deciphering the Impact of Viral Infections on Human Neurocognitive Functions ex vivo

GAUDIN
Raphael
Institut de Recherche en Infectiologie de Montpellier (IRIM)
University of Montpellier

FRANCE

GOWRISHANKAR
Ganesh
Laboratoire d'Informatique, de Robotique et de Microelectronique de Montpellier (LIRMM)
CNRS Languedoc-Roussillon

FRANCE

Yoshiho
Institute of Industrial Science
The University of Tokyo

JAPAN
Elucidating physico-chemical forces setting the limit of bacterial growth

HWA
Terence
Dept. of Physics and Biology
University of California, San Diego
La Jolla
USA

FRITZ
Georg
School of Molecular Sciences
University of Western Australia (UWA)
Perth
Australia (Germany)

PILIZOTA
Teuta
School of Biological Sciences
University of Edinburgh
UK

VAN TEEFELEN
Sven
Dept. of Microbiology, Infection and Immunology
University of Montreal
Canada (Germany)

Functional ecology of flagellates sheds new light on early eukaryotic evolution

KIORBOE
Thomas
Centre for Ocean Life, DTU Aqua
Technical University of Denmark
Kgs. Lyngby
Denmark

SIMPSON
Alastair
Dept. of Biology
Dalhousie University
Halifax
Canada (Australia)

WAN
Kirsty
Living Systems Institute
University of Exeter
UK

Mechanisms and evolutionary consequences of stress-induced mutagenesis

KUPIEC
Martin
The Shmunis School of Biomedicine and Cancer Research
Tel Aviv University
Israel

TRAULSEN
Arne
Dept. of theoretical Biology
MPI for Evolutionary Biology
Plön
Germany

Vibrational information transfer between living cells in the extracellular matrix

LESMAN
Ayelet
School of Mechanical Engineering
Tel Aviv University
Israel

GENIN
Guy
McKelvey School of Engineering
Washington University in St.Louis
USA

MORTIMER
Beth
Dept. of Biology
University of Oxford
UK

ZAERA POLO
Ramon
Continuum Mechanics and Structural Analysis
Carlos III University of Madrid
Leganes
Spain
### Cognitive convergence: Vertebrate carnivore-like predatory planning behaviors in jumping spiders

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<tr>
<th>LI</th>
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<td>Chen</td>
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<tr>
<td>Malcolm</td>
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### Scaling the impact of viruses from single cells to the global methane cycle

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<td>Ashish</td>
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<td>Graeme</td>
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### UV opsin as the sensor for magneto-sensation in animals

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<td>Igor</td>
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<td>Mickey</td>
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<td>Christine</td>
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<td>College Station</td>
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### From nano to organismal scale: structural regulation of regenerating jellyfish

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<tr>
<td>SINIGAGLIA</td>
<td>Integrative Biology of Marine Organisms (BIOM) CNRS Languedoc-Roussillon</td>
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<tr>
<td>Chiara</td>
<td>Banyuls sur mer</td>
<td>(Italy)</td>
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<td>MDES</td>
<td>Center for Systems Biology Dresden (CSBD) MPI of Molecular Cell Biology and Genetics Dresden</td>
<td>Germany (USA)</td>
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<tr>
<td>Carl</td>
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<tr>
<td>SHIMANOVICH</td>
<td>Dept. of Materials and Interfaces Weizmann Institute of Science Rehovot</td>
<td>Israel</td>
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### Temporal structures in complex deep-sea versus surface marine life: from molecules to communities

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<td>TESSMAR-RAIBLE</td>
<td>Dept. of Microbiology, Immunobiology and Genetics University of Vienna</td>
<td>Austria (Germany)</td>
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<td>Kristin</td>
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<tr>
<td>MATABOS</td>
<td>Mineral Resources and Deep-Sea Ecosystems (REM) French Research Institute for Exploitation of the Sea (IFREMER) Plouzané</td>
<td>France</td>
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<tr>
<td>Marjolaine</td>
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<tr>
<td>OAKLEY</td>
<td>Dept. of Ecology Evolution and Marine Biology The University of California, Santa Barbara</td>
<td>USA</td>
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<tr>
<td>Todd</td>
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<tr>
<td>PELEG</td>
<td>Computer Science Dept. and BioFrontiers Institute University of Colorado Boulder</td>
<td>USA (Israel)</td>
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<td>Orit</td>
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### Physical forces and mechanotransduction during mouse embryo implantation

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<tr>
<td>TREPAT</td>
<td>Dept. of Integrative Cell and Tissue Dynamics Fundacio Institut de Bioenginyeria de Catalunya Barcelona</td>
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<tr>
<td>Xavier</td>
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<tr>
<td>HIIRAGI</td>
<td>Dept. of Multi Cellular Coordination Hubrecht Institute Utrecht</td>
<td>The Netherlands (Japan)</td>
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<tr>
<td>Takashi</td>
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### Understanding the molecular basis of animal cold thermosensation

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<tr>
<td><strong>VIANA</strong></td>
<td>Dept. of Cellular and Systems Neurobiology</td>
<td>Instituto de Neurociencias de Alicante</td>
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<tr>
<td>Felix</td>
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<td>Sant Joan d'Alacant</td>
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<td><strong>DALEN</strong></td>
<td>Dept. of Zoology</td>
<td>Stockholm University</td>
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<td>Love</td>
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<tr>
<td><strong>DOMENE</strong></td>
<td>Dept. of Chemistry</td>
<td>University of Bath</td>
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<tr>
<td><strong>SOBOLEVSKY</strong></td>
<td>Dept. of Biochemistry and Molecular Biophysics</td>
<td>Columbia University in the City of New York</td>
<td>USA</td>
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<tr>
<td>Alexander</td>
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### Hormone-like Bacterial Signaling Molecules as Mediators of Gut-Brain Dialogues

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<tr>
<td><strong>XAVIER</strong></td>
<td>Bacterial Signalling Lab.</td>
<td>Fundacao Calouste Gulbenkian</td>
<td>Portugal</td>
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<tr>
<td>Karina</td>
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<td>Oeiras</td>
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<tr>
<td><strong>MEIJLER</strong></td>
<td>Dept. of Chemistry</td>
<td>Ben-Gurion University of the Negev</td>
<td>Israel</td>
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<tr>
<td>Michael</td>
<td></td>
<td>Be'er-Sheva</td>
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<tr>
<td><strong>NEEDHAM</strong></td>
<td>Stark Neurosciences Institute; Dept. of Anatomy</td>
<td>Indiana University</td>
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<tr>
<td>Brittany</td>
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### Mechanoradicals as a novel form of mechanosensing: from protein stretching to animal aging

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<tr>
<td><strong>ZAIDEL-BAR</strong></td>
<td>Dept. of Cell and Developmental Biology</td>
<td>Tel Aviv University</td>
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<tr>
<td><strong>DUNN</strong></td>
<td>Dept. of Chemical Engineering</td>
<td>Stanford University</td>
<td>USA</td>
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<tr>
<td><strong>GRÄTER</strong></td>
<td>Dept. of Molecular Biomechanics</td>
<td>Heidelberger Institut für Theoretische Studien</td>
<td>Germany</td>
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<tr>
<td>Frauke</td>
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</table>
Quantifying the 4-dimensional microenvironment to explain the coexistence of social insects

**BISHOP**
Tom
Dept. of Organisms and Environment
Cardiff University
UK

**DAVIES**
Andrew
Dept. of Organismic and Evolutionary Biology
Harvard University
Cambridge
USA
(South Africa)

**JANION-SCHEEPERS**
Charlene
Dept. of Biological Sciences
University of Cape Town
South Africa

**SENIOR**
Rebecca
Dept. of Biosciences
School of Biological and Biomedical Sciences
Durham University
UK

Resurrecting the Multiple Origins of Tyrosine Kinase Activity and Phosphotyrosine Recognition

**CREIXELL**
Pau
CRUK Cambridge Institute
The University of Cambridge
UK
(Spain)

**METZGER**
Brian
Dept. of Biological Sciences
Purdue University
West Lafayette
USA

S3: Securing shifting sands – from genes to geoengineering

**DUNNING**
Luke
School of Biosciences
University of Sheffield
UK

**REIJERS**
Valerie
Dept. of Physical Geography
Utrecht University
The Netherlands

**WENGROVE**
Meagan
School of Civil and Construction Engineering
Oregon State University
Corvallis
USA

Deciphering the evolution, cellular biology and biogeochemistry of symbioses in anaerobic eukaryotes

**HUSNIK**
Filip
Okinawa Institute of Science and Technology Graduate University
Onna-son, Okinawa
Japan
(Czech Republic)

**BEINART**
Roxanne
Graduate School of Oceanography
University of Rhode Island
Narragansett
USA

**STAIRS**
Courtney
Dept. of Biology
Lund university
Sweden
(Canada)
How predictable is evolution? Eco-evolutionary dynamics of fungi across biological scales

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<td>MANHART</td>
<td>Dept. of Biochemistry and Molecular Biology, Rutgers Biomedical and Health Sciences</td>
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<td>CHARLEBOIS</td>
<td>Dept. of Physics, The University of Alberta</td>
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<td>WORTEL</td>
<td>Dept. of Microbiology, University of Amsterdam</td>
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Mechanical control of hidden embryonic boundaries

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<td>Dept. of Cell and Developmental Biology, University College London</td>
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<tr>
<td>ALMUEDO-CASTILLO</td>
<td>Dept. of Gene Regulation and Morphogenesis, Centro Andaluz de Biología del Desarrollo/ CSIC Sevilla</td>
<td>Spain</td>
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<tr>
<td>SERRA</td>
<td>Dept. of Physics, University of California, San Diego (Italy)</td>
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A novel approach to tropical dendroclimatology using hyperspectral imaging and deep learning [ATHIL]

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<tr>
<td>RANNESTAD</td>
<td>Faculty of Environmental Sciences and Natural Resource Management, Norwegian University of Life Sciences Ås</td>
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<td>SIYUM</td>
<td>Dept. of Climate and Society, Mekelle University, Institute of Climate and Society</td>
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The Emergence of Collective Intelligence: Understanding Human Behavior through AI Agents

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<td>Depto de Estructura de la Materia, Física Térmica y Electrónica, Universidad Complutense de Madrid</td>
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<td>SAXE</td>
<td>Gatsby Computational Neuroscience Unit and Sainsbury Wellcome Centre, University College London (USA)</td>
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<td>SPIZTER</td>
<td>Dept. of Psychology, Martin Luther University Halle-Wittenberg</td>
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<tr>
<td>TEICH</td>
<td>Dept. of Physics, Wellesley College</td>
<td>USA</td>
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**RESEARCH GRANTS – EARLY CAREER**

A tale of tails – reconstructing evolutionary transition between archael and eukaryotic chromatin

| **TAKEMATA** | Dept. of Synthetic Chemistry and Biological Chemistry
Kyoto University | Japan |
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| **DODONOVA** | Structural and Computational Biology Unit
EMBL-Heidelberg | Germany |
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