



# HFSP AWARDS 2020

## CROSS-DISCIPLINARY FELLOWSHIPS

**as approved by the Board of Trustees (March 2020)**

The HFSP fellowship program funds innovative, ground-breaking projects that have the potential to advance knowledge in the applicants' field of study or open a new approach to a research problem. High risk research is supported.

**Cross-disciplinary fellowships** are intended for postdoctoral fellows with a degree from outside the life sciences (e.g. physical sciences, chemistry, mathematics, engineering or computer sciences) who wish to receive training in biology. Fellows receive 3 years of support to obtain training in an outstanding laboratory of their choice in another country. Applicants for this fellowship are expected to move into a new research field through a significant change in discipline.

<b>ASHDOWN George UK</b>	From	Department of Life Sciences Imperial College London UK	<b><i>Mycobacterium tuberculosis modulation of host, elucidated by super-resolution imaging and proteomics</i></b>
	To	Division of Infectious Diseases and Immune Defence Walter and Eliza Hall Institute of Medical Research Melbourne AUSTRALIA	Supervisors: PELLEGRINI Marc and COUSSENS Anna
<b>BENDTZ Katarina SWEDEN</b>	From	Department of Psychology Stockholm University SWEDEN	<b><i>Global Neuronal Network theory vs Integrated Information Theory</i></b>
	To	Children's Hospital Harvard University Boston USA	Supervisor: KREIMAN Gabriel
<b>BOYS Alexander USA</b>	From	Department of Materials Science and Engineering Cornell University, Ithaca USA	<b><i>Pathways of neural information transfer along the gut-brain axis</i></b>
	To	Department of Chemical Engineering and Biotechnology University of Cambridge UK	Supervisors: OWENS Roisin and MALLIARAS George
<b>CHEW Wei Xiang MALAYSIA</b>	From	Department of Physics University of Malaya Kuala Lumpur MALAYSIA	<b><i>Physical determinants for the coexistence of nematic and polar network states in mitotic spindles</i></b>
	To	Department of Cell and Developmental Biology Centre for Genomic Regulation Barcelona SPAIN	Supervisor: SURREY Thomas
<b>DAMRY Adam CANADA</b>	From	Department of Chemistry and Biomolecular Sciences University of Ottawa CANADA	<b><i>Electrochemical biosensors for minimally invasive continuous small molecule monitoring</i></b>
	To	Research School of Chemistry Australian National University Canberra AUSTRALIA	Supervisor: JACKSON Colin

<b>DUPIC Thomas FRANCE</b>	From	Département de Physique Ecole Normale Supérieure Paris FRANCE	<b><i>Reproducing affinity maturation dynamics in vitro</i></b>
	To	Department of Organismic and Evolutionary Biology Harvard University Boston USA	Supervisor: DESAI Michael
<b>GOSZTOLAI Adam HUNGARY</b>	From	Department of Mathematics Imperial College London UK	<b><i>Data-driven discovery of decentralised control mechanisms of action selection</i></b>
	To	Neuroengineering Laboratory Brain Mind Institute and Interfaculty Bioengineering Institute, EPFL Lausanne SWITZERLAND	Supervisors: RAMDYA Pavan and IJSPEERT Auke
<b>JEONG Seungwon KOREA</b>	From	Department of Physics Korea University Seoul KOREA	<b><i>Miniaturized two-photon microscope capable of deep brain imaging in freely behaving animals</i></b>
	To	Department of Neuroscience Johns Hopkins University Baltimore USA	Supervisor: KWON Hyungbae
<b>KASHCHUK Anatolii UKRAINE</b>	From	Institute of Physics National Academy of Sciences Kyiv UKRAINE	<b><i>Investigating mechanotransduction at a single molecule level</i></b>
	To	Department of Physics and Astronomy University of Florence ITALY	Supervisor: CAPITANIO Marco
<b>LI Li CHINA</b>	From	Transnational Center National Institute of Biological Sciences Beijing CHINA	<b><i>Elucidating the acute cellular sensing and response pathways to severe hypoxia</i></b>
	To	Department of Pharmaceutical Chemistry University of California San Francisco USA	Supervisor: ALTSCHULER Steven

<b>MILLES</b> <b>Lukas</b> GERMANY	From	Faculty of Physics LMU Munich GERMANY	<b><i>De novo design of autocatalytic formation of isopeptide bonds</i></b>
	To	Institute for Protein Design University of Washington Seattle USA	Supervisor: BAKER David
<b>RABUT</b> <b>Claire</b> FRANCE	From	Physics for Medicine Laboratory INSERM Paris FRANCE	<b><i>Whole-brain acoustic tracking of calcium and hemodynamics (WATCH)</i></b>
	To	Division of Chemistry and Chemical Engineering California Institute of Technology Pasadena USA	Supervisor: SHAPIRO Mikhail
<b>RINALDIN</b> <b>Melissa</b> ITALY	From	Leiden Institute of Physics Leiden University THE NETHERLANDS	<b><i>Investigating the role of non-equilibrium pathways to liquid-liquid phase separation in vitro</i></b>
	To	Martin A. Fisher School of Physics Brandeis University Waltham USA	Supervisors: DUCLOS Guillaume and ROGERS Benjamin
<b>SCHUEDER</b> <b>Florian</b> GERMANY	From	Molecular Imaging and Bionanotechnology Lab Max Planck Institute of Biochemistry Martinsried GERMANY	<b><i>Characterization of the sorting platform's assembly in bacteria using 4Pi microscopy and DNA-PAINT</i></b>
	To	Department Cell Biology and Department of Microbial Pathogenesis Yale University, New Haven USA	Supervisors: BEWERSDORF Joerg and GALAN Jorge
<b>VALET</b> <b>Manon</b> FRANCE	From	Laboratoire Jean Perrin Université de la Sorbonne Paris FRANCE	<b><i>Biomechanical induction of a primitive streak in a synthetic human embryo</i></b>
	To	Center for Studies in Physics and Biology The Rockefeller University New York USA	Supervisors: SIGGIA Eric and BRIVANLOU Ali