

Junior Interdisciplinary Fellowships (deadline 29/03/2019)

List of projects:

1. *'Novel Hybrid Hydrogels for Improving Ambient Temperature Storage of Cell-Free Extracts'* – Ajioka, Jim (Pathology); Fruk, Ljiljana and Molloy, Jenny (Chemical Engineering and Biotechnology)
2. *'Development of artificial cochleae with similar electrical characteristics to living cochleae'* – Bance, Manohar (Clinical Neurosciences); Malliaras, George (Engineering)
3. *'Using single-molecule imaging and chromosome conformation capture (Hi-C) to build realistic polymer models of enhancer-promoter interactions'* – Basu, Srinjan (MRC Stem Cell Institute); Collepardo-Guevara, Rosana (Physics)
4. *'Antibody-mediated targeted and intracellular delivery of PROTACS'* - Bernardes, Gonçalo (Chemistry); Kouzarides, Tony (Gurdon)
5. *'Mitochondrial genomics to infer mitochondrial genetic dynamics and impacts during ageing'* – Chinnery, Patrick F. (Clinical Neurosciences/ MRC Mitochondrial Biology Unit); Jones, Nick S. (Mathematics at Imperial College London)
6. *'Unifying optical imaging modalities through nanophotonics for early cancer detection'* - Bohndiek, Sarah (Physics); di Pietro, Massimiliano (MRC Hutchinson Laboratory/Department of Oncology)
7. *'The development and application of cutting-edge imaging techniques to uncover the spatiotemporal dynamics of host cell modification caused by virus infection'* - Crump, Colin (Pathology); Kaminski, Clemens (Chemical Engineering and Biotechnology)
8. *'Discovering potent and selective chemical probes of GPCRs with statistical physics-based machine learning'* - Davenport, Anthony (Medicine); Lee, Alpha (Physics)
9. *'Genes in Cages. Overcoming the bottleneck of safer nucleic acid chain transportation for gene therapy'*- Fairen-Jimenez, David (Chemical Engineering and Biotechnology); Marciniak, Stefan J. (Cambridge Institute for Medical Research)
10. *'Bacterial motility and chemotaxis as drivers of antimicrobial resistance in biofilms'* - Goldstein, Raymond (DAMTP); Parkhill, Julian (Sanger/Veterinary) and Locke, James (Sainsbury)
11. *'Deciphering Leukaemogenic Mechanisms by Integrated Systems-Scale Analysis'* - Gottgens, Bertie (Haematology); Simons, Benjamin (Physics)
12. *'Impact of mechanical heterogeneity on brain tumour invasion, recurrence and treatment outcome'* - Kabla, Alexandre (Engineering); Franze, Kristian (PDN)
13. *'Improving blood stem cell expansion using mechanical biology approaches and 3D microenvironments'* - Kent, David (MRC Stem Cell Institute); Chalut, Kevin (Physics)
14. *'Towards a predictive evolutionary theory of public health interventions'* - Kilner, Rebecca M. (Zoology); Bacallado, Sergio (DPMMS)
15. *'Machine learning tools for precision mental health'* - Kourtzi, Zoe (Psychology); Schönlieb, Carola-Bibiane (DAMTP)
16. *'Multimodal neural implants for restoration of motor and sensory function following nervous system injury'* - Malliaras, George (Engineering); Morton, Jenny (PDN)
17. *'Deciphering how the nanoscale architecture of the actomyosin cortical network determines cell surface tension'* - Nedelec, Francois (Sainsbury); Paluch, Ewa (PDN); Kaminski Clemens (Chemical Engineering and Biotechnology)
18. *'Dissecting the impact of human red blood cell biophysical properties on malaria parasite invasion'* - Rayner, Julian (Institute for Medical Research); Cicuta, Pietro (Physics)
19. *'The genotype-phenotype map of disease-relevant host manipulating microbial effectors'* - Schornack, Sebastian (Sainsbury Lab); Ahnert, Sebastian (Physics/Sainsbury)
20. *'Artificial intelligence solutions for the analysis of microscopic biopsy images with integration of molecular analysis of tissue immune responses'* - Soilleux, Elizabeth (Pathology); Schönlieb, Carola-Bibiane (DAMTP)