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)