The Physics of Living Matter for Tomorrow
An international workshop in association with the 17th HFSP Awardees Meeting
Champalimaud Centre for the Unknown, Lisbon, Portugal, Sunday, 9 July 2017

Daniel Riveline, University of Strasbourg, France
Karsten Kruse, University of Geneva, Switzerland
Guntram Bauer, HFSP, Strasbourg, France

09:00 Welcome
HFSPO, Champalimaud Centre for the Unknown

09:10 Introduction to the goals of the workshop
Daniel Riveline, Karsten Kruse

09:30 Invited Lecture
Physics meets biology in the fly embryo – an adventure story
William Bialek, Princeton University, USA and Eric Wieschaus, Princeton University, USA

10:30 Coffee Break

Research and training programs for physics in the life sciences

11:00 Teaching theory to biologists
Jane Kondev, Department of Physics, Brandeis University, Waltham, USA; Cold Spring Harbor Laboratory, USA; Marine Biology Laboratory, Woods Hole, USA

11:30 A new Cell Physics Master: an integrated training year at the interfaces for scientific graduate students
Daniel Riveline, University of Strasbourg, CellPhysics Master, France

12:00 Developing an interdisciplinary bootcamp for incoming graduate students in the biosciences
Tim Saunders, Mechanobiology Institute, Singapore

12:30-13:30 Panel discussion

13:30 Lunch break

Physical approaches in biological research

14:30 Beyond Turing: mechanochemical basis of pattern formation in active biological materials
Nikta Fakhri, Massachusetts Institute of Technology, USA

14:55 Decoding of precise position in the developing neural tube from antiparallel morphogen gradients
Anna Kicheva, Institute of Science and Technology, Klosterneuburg, Austria

15:20 Possible and impossible cells
Mukund Thattai, National Centre for Biological Sciences, Bangalore, India

15:45 Physics-Biology interface in the study on ATP synthase
Hiroyuki Noji, University of Tokyo, Japan

16:10-17:00 Panel discussion

Welcome reception for the HFSP Awardees Meeting

19:00 Altis Grand Hotel, Lisbon