



# UNDERSTANDING THE Physics of Life

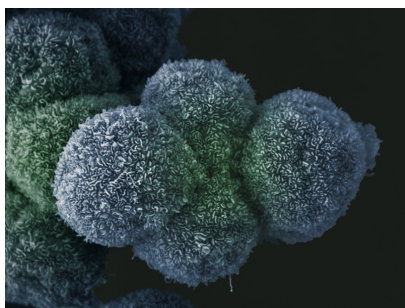
## March Newsletter

**EPSRC**

Pioneering research  
and skills



## Physics of Life Events



CANCER  
RESEARCH  
UK

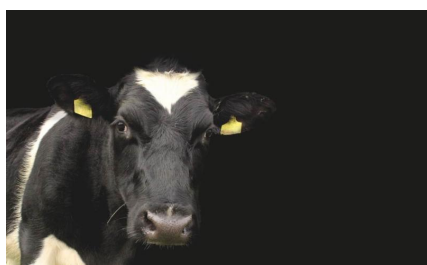


*National Institute for  
Health Research*

**FINAL REMINDER:**  
Merging clinical, biological  
and physical sciences  
approaches for cancer  
research

10 April 2018, BMA House,  
London

Register for cancer  
workshop



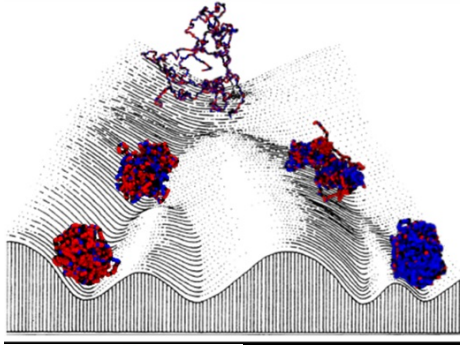
Register for Physics of  
Animal health here

**FINAL REMINDER:**  
Insights and Impact from the  
Physics of Animal Health

12-13 April 2018  
School of Veterinary Medicine  
and Science, University of  
Nottingham, Sutton Bonington  
Campus.

FREE REGISTRATION

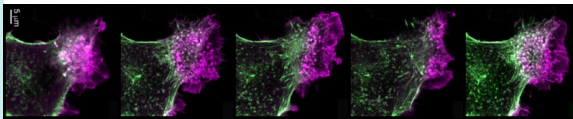
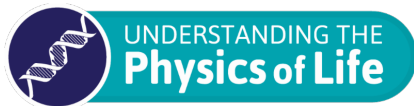
Biophysics of epigenetic and  
chromatin dynamics



16-17 April 2018, Higgs Centre for  
Theoretical Physics, Edinburgh

FREE REGISTRATION

[Register for Epigenetics here](#)



16-17 May 2018, Weetwood  
Hall, Leeds

**Registration:**

**Fee:** £40 \* Includes lunches,  
refreshments and conference dinner.

**Deadline:** 01 May 2018

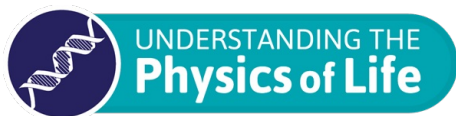
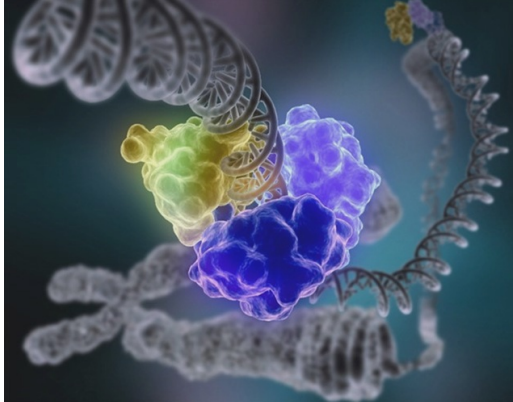
[Register for multiscale  
mechanics workshop](#)

## ***NEW: Multi-scale mechanics in biology: Current Challenges and Potential Solutions for Healthcare Applications***

Multiscale mechanics of biological systems has emerged as an exciting area of research and provides enormous opportunities for innovative multidisciplinary basic research and technological advancement. This workshop will discuss current experimental and theoretical tools for exploring the mechanical properties of biological soft matter, including proteins, polymers, membranes, fibrous networks, cells and tissues. The possibilities of understanding biological systems which span multiple scales, both spatial and temporal, and the challenges involved in bringing this knowledge together into a single multi scale understanding will also be explored. Finally, example success stories, where knowledge of physics at each length scale has resulted in novel approaches to solving clinical challenges will be given. We aim to bring together physical scientists, biologists, engineers and medical disciplines.

### **Speakers:**

Laurent Blanchoin (Grenoble)  
Gijsje Koenderink (AMOLF)  
Cornelis Storm (Eindhoven)  
Robert Ariens (Leeds)  
Daniel Frankel (Newcastle)  
Ewa Paluch (UCL/Cambridge)  
Vasileios Vavourakis (UCL)  
Ruth Wilcox (Leeds)



**16-20 July 2018**  
**Grey College, Durham University**

### Registration:

**Fee:** £100 (includes accommodation and all meals 16-20 July).  
£135 (accommodation, including, additional night stay on 15 July and all meals)

**Deadline:** On or before 29 May 2018 (dependent on place availability; places allocated on a first come, first serve basis).

### Member of BBS?

Two [BBS](#) bursaries have been made available to help with travel to this event. These are available to help with travel for young [BBS members](#) (postgraduate, or first three years postdoc) who are attending this summer school.



## Physics of Life Summer School: New Approaches to Biomolecular structure, dynamics and function

This summer school, aimed at UK-based early stage researchers, will present state-of-the-art computational, theoretical and experimental techniques used to explore how biomolecular dynamics depend on molecular structure and connects to and determines biological function. This is a rapidly expanding field which combines many different aspects of biology and physics. Aimed at early-career researchers from either life-science or physical-science background, it will assist in effective working in the interdisciplinary world that connects them.

The summer school will cover a broad range of topics within this theme, including:

- X-ray/synchrotron technologies ([Martin Walsh](#) and [Ehmke Pohl](#))
- High resolution microscopies ([Rob Pal](#))
- Multiscale modelling ([Gerhard Gompper](#))
- Protein Dynamics ([Sarah Harris](#))
- Dissecting the structural and mechanistic basis of epigenetic memory ([Martin Howard](#))
- NMR-based technologies ([Anastasia Zhuravleva](#))
- Protein Evolution ([Bhavin Khatri](#))
- Working across disciplines ([Tom McLeish](#), [Martin Cann](#), [John Girkin](#), [Olwyn Byron](#))

**Register for Summer School**

**Visit Physics of Life Website**

