Instructors

A. Multiscale Approaches

Mariya Ptashnyk (Heriot-Watt University, United Kingdom)

Title: Multiscale modelling and analysis of biological systems

• Chandrasekhar Venkataraman (University of Sussex, United Kingdom)

Title: Numerical methods for multiscale models arising in biology

B. Cancer

- Mark Chaplain (University of St Andrews, United Kingdom) &
- Nikolaos Sfakianakis (University of St Andrews, United Kingdom)

: A differential equation approach to cancer growth, invasion, and metastasis

C. Epidemiology

• Julien Arino (University of Manitoba, Canada)

Title: Deterministic models in mathematical epidemiology

• Frank Ball (University of Nottingham, United Kingdom)

Title: Stochastic models of epidemics

Ruth Bowness (University of Bath, United Kingdom)

Title: Modelling infectious diseases within-host using a hybrid multiscale individual-based model

D. Immunology and treatment

Rachel Bearon (King's College London)

Title: Insights from mathematical models of micro-tissues for drug uptake & cancer spread

Gibin Powathil (Swansea University, United Kingdom)

Title: Mathematical Oncology: Introduction to agent-based modelling and multi-scale approach

E. Cell Migration

- John MacKenzie (University of Strathclyde, United Kingdom) &
- Robert Insall (Beatson Institute & University College London, United Kingdom)

Title: Helping dissect directed cell migration using computational modelling

• Fiona Macfarlane (University of St Andrews, United Kingdom)

Title: Discrete and continuum models of collective cell invasion processes

Tentative program

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Monday	Tuesday	Wednesday	Thursday	Friday
09:30-11:00	Lecture 1	Lecture 3	Lecture 5	Lecture 7	Lecture 9	Outing	Lecture 11	Lecture 13	Lecture 15	Lecture 17	Projects presentation
11:00-11:30	Break	Break	Break	Break	Break		Break	Break	Break	Break	Break
11:30-13:00	Lecture 2	Lecture 4	Lecture 6	Lecture 8	Lecture 10		Lecture 12	Lecture 14	Lecture 16	Lecture 18	Projects presentation
13:00-14:30	Lunch	Lunch	Lunch	Lunch	Lunch		Lunch	Lunch	Lunch	Lunch	Lunch
14:30-16:00	Tutorial 1	Tutorial 2	Project	Practical 2	Practical 3		Tutorial 3	Practical 4	Practical 5	Practical 6	Panel discussion
16:00-17:30	Practical 1	Project	Project	Project	Project		Project	Project	Project	Project	Closing