

SMB Developmental Biology Subgroup

The Subgroup on Developmental Biology brings together researchers who are interested in understanding developmental biology phenomena using quantitative approaches. Developmental biology has long proven a fertile ground for mathematical modelling and, with recent advances in microscopy, image analysis, and fluorescent reporter methods, it is becoming an increasingly quantitative discipline. We are now able to constrain mathematical models of developmental processes, for example through parameter estimation, increasing the potential of such models to be used in a predictive way. The objective of this Subgroup is to accelerate these efforts, by supporting and advancing the use of mathematical modelling as part of the 'toolkit' of developmental biology.

The subgroup's minisymposium "Interdisciplinary approaches in developmental biology" at the 2018 SMB Annual Meeting in Sydney featured talks by Tracy Stepien (U. Arizona), Yoshihiro Morishita, Berta Verd (Cambridge), Tatsuo Shibata (Riken), Zoltan Neufeld (U. Queensland), and Kaoru Sugimura (Kyoto). The session was a success, and showcased the power of using theoretical methods in tandem with experimental approaches in elucidating developmental processes.

This year, the focus of our symposium is to showcase the cutting edge of research in the mathematical modelling of developmental processes, with a focus on emerging talent, and contemporary mathematical approaches. We are delighted to announce that this year's symposium "Contemporary mathematical approaches in developmental biology" will feature talks by Adam MacLean (U. of Southern California), Ruben Perez (U. College London), Lisanne Rens (U. of British Columbia), and Renske Vroomans (U. of Helsinki). This will be held at the 2019 SMB Annual Meeting in Montreal this July. If you are attending the Meeting, please come along! Finally, we hope that you will join us for a small social gathering.

The annual general meeting of the subgroup took place at the SMB Annual Meeting in Sydney, during which the results of the elections of a new leadership group were announced. The group is lead by Andreas Buttenschoen (chairman, UBC) and Alex Fletcher (secretary, Sheffield), who are advised by Ruth Baker (U. of Oxford), Linus Schumacher (U. of Edinburgh), and Michael Watson (U. of Sydney).

If you are interested in joining and receiving updates from the developmental biology subgroup, we encourage you to join our mailing lists, by emailing the group's secretary Alex Fletcher (a.g.fletcher@sheffield.ac.uk).