

First Circular (June 2013)

Are there limits to evolution?

25-26 September, 2014

A scientific Conference to be held at St. John's College, Cambridge

What will evolutionary biology look like in 50 years? More of the same or will there be new paradigms, new syntheses? What lies on the horizon?

The impact of evolution is undeniable, but it can be viewed through different lenses. For the scientist it is the investigative discipline, mapping out the history of life, uncovering its intricacies and revealing its mechanisms. For others it might be the grand narrative, and across society it brings different meanings—sometimes to the point of polarization. Ideas about evolution pervade and influence our self-understanding. This was evident throughout the celebrations in 2009 of Darwin's bicentennial and *The Origin's* 150 years. Yet the subject of evolution is not merely "Darwinism", let alone "neo-Darwinism", but a science that ought always to seek new questions, rattle the cage of existing paradigms and not rest content with received wisdom.

This conference is an opportunity to focus on the important research objectives, discuss the best ways to achieve them, and use these to set a considered agenda for the continued study of evolution. What are the questions we now need to define? For instance;

- Is evolutionary convergence ubiquitous? If so, is this of any wider significance?
- Can we define biological complexity? Are there limits to complex systems?
- How do biological systems integrate? How do horizontally transmitted genes become incorporated into the genome?
- What is the significance of mosaic evolution?
- How soon before we detect habitable planets and what is the significance for exobiology?
- What is the nature of consciousness, and in the context of neuroscience are there any compelling explanations?

We invite you to join us in Cambridge. Planning is at an early stage, which is why we ask for your input, but at present we envisage four sessions over two days;

- Title – TBC (Complexity) Morning day 1 + keynote
- Title – TBC (Convergence) Afternoon day 1 + keynote
- Title - TBC (Connectivity/integration) Morning day 2 + keynote
- Title - TBC (Far horizons?) Afternoon day 2 + keynote

Join us! If you think you might attend, please let us know. We are also open for speaker submissions; please contact us as soon as possible with your provisional title. A Second Circular is in preparation and in due course we will solicit Abstracts and give details as to how to book, etc.

The Conference will be held in newly refurbished facilities at St. John's College. These include a spacious lecture theatre, full AV facilities, rooms for networking opportunities, as well as immediate

access to the historic centre of Cambridge. Accommodation will be available in College, and the Conference package will include all meals, a wine reception, and a Conference Dinner in John's medieval Dining Hall

This event is part of a larger programme on evolution funded by the Templeton World Charity Foundation. The project in Cambridge includes two post-docs; Dr Sylvain Gerber and Dr Jen Hoyal-Cuthill, who are investigating complexity and convergence. In addition, an outreach team comprising Dr Victoria Ling (science communicator) and Dr Mags Pullen (science writer), are developing a new website resource to introduce and explain evolutionary principles, and bring these big questions in an accessible way to non-specialists, as well as workshops and science festivals.