



CEE Event – Darwin's Birthday Debate

**Wednesday 13th February 2019
1600 to 1900**

**Bett Lecture Theatre,
Natural History Museum, Exhibition Road,
London, SW7 5BD**

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| 1600 | Event opens |
| 1615 | Welcome and Introduction by Professor Anjali Goswami |
| 1630 | Talk 1 by Professor Anne Stone |
| 17.00 | Talk 2 by Professor Virpi Lummaa |
| 17.30 | Questions and discussion |
| 1800 | Wine Reception and Informal Networking |
| 1900 | Event finishes |



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Arizona State University, USA
Website:

Title: Natural selection – now!

Abstract: The Industrial Revolution and the accompanying nutritional, epidemiological and demographic changes have profoundly changed human ecology and biology, leading to major shifts for example in our disease patterns, lifespan, family size or age at puberty. These recent social and cultural adaptations have cast doubt on the continued relevance of Darwinian selection in humans – we now have modern medical care and effective contraceptive methods so does that mean evolution by natural selection has stopped? I will discuss how mismatches between past adaptations and the current environment mean that gene variants linked to higher fitness in the past may now predispose us to non-communicable diseases, such as Alzheimer disease, cancer and coronary artery disease. Moreover, in both traditional and industrialized societies, differences among individuals still lead to selection favouring certain heritable traits because although survival to old age can be high, not everyone has the same family size and many forego reproduction altogether. In line with this, increasing evidence suggests that the transition to modernity has also altered the direction and intensity of natural selection acting on many traits, with important implications for public and global health.

Speaker bio: Virpi Lummaa studies natural selection in contemporary human populations. Lummaa investigates how the modern environment itself fuels human evolution and how demographic shifts to low birth and death rates affect the opportunity for selection or specific trait selection. She uses longitudinal demographic data from Finland spanning 350 years and more than twelve generations to look at how the strength and direction of natural selection has changed over time.

