



University of Tasmania



Thursday 3 July 2014

University researchers advancing knowledge of life on Earth

Life on Earth is capable of surviving from temperatures well below freezing to above the boiling point of water – University of Tasmania has produced a predictive model, at the University of Tasmania, with the potential to produce the temperature dependence of all biological growth processes on Earth.

This exciting research will be revealed at a School of Land and Food seminar tomorrow (**Friday 4 July**) at the University of Tasmania. The model is applicable to single-celled and multi-celled species, from all three domains of life.

Potential future applications of the new model may include a range of scientific fields including climate change. Here, growth rates of an indicator species could be a

support for a system common to all life, perhaps even illuminating what we know about the 'last universal common ancestor' to all life.

Other applications of the research include:

- x to identify the limits of life on Earth and how organisms adapt to temperature
- x being able to define the limits of life on Earth set by combinations of temperature and eventually by salinity and pH.

Seminar: "From the limits of life on Earth to the limits of life on Mars" – open to the public and welcome to attend.

Presented by Dr Ross Corkrey, Senior Research Fellow in Biometrics, and Dr Tom Boss, Associate Professor in Food Microbiology.

Time: 5pm, Friday 4th July

Where: Lecture Theatre 1, Life Sciences Building, UTAS Sandy Bay Campus.

Biographies for speakers Dr Ross Corkrey studied at the University of Adelaide as a mature-aged student and, in 1984, published his major research paper for which he won the Michael Smyth memorial award. He then worked for the Australian Bureau of Statistics and the University of Newcastle where he handled public health interventions and a research program on tobacco use. He completed his PhD at the University of Newcastle in 1991 and worked for the University of Queensland from 1992 to 2000.

relocating to Queensland in 2000 to work for the Queensland Health Department, where he was particularly using Bayesian methods.

Associate Professor Tom Ross, who works within the Food Safety Centre at TIA, was recently awarded the prestigious Keith Farrer Award of Merit at the Australian Convention – this award is given for achievements in food science and technology in the wide areas of research, industry and education and contributions to further the aims and objectives of the Institute. Assoc. Professor Ross' research focuses on developing science and decision support systems to help industry and government to reduce the chances of food-borne infections.