



**UNIVERSITY OF
STIRLING**

**SCHOOL OF BIOLOGICAL AND
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PhD studentship opportunity 2010

Ageing and the invertebrate immune system

Immune defence is obviously crucial for protecting against parasite attack during an organism's lifetime. However, immune system deployment can also negatively influence other traits by causing damage to the host. We have recently uncovered evidence that there is a tradeoff between investment in immunity and the rate at which flies age: pathogen defence comes at the cost of faster senescence. Working in *Drosophila* this project will investigate the interplay between the immune system and the ageing process. You will assess the extent to which activation of the immune system leads to alterations in the pattern of demographic ageing in fly populations. The project will also investigate how immune activity influences the senescent decline of other fitness-related traits, such as fecundity, locomotion and stress resistance. Understanding these processes in invertebrates is of intrinsic scientific importance; however this information will also shed light on issues of medical relevance to an ageing worldwide human population.

The closing date for applications is Friday 26th February 2010, but interested students should make informal enquiries to Dr Matt Tinsley as soon as possible by email to mt18@stir.ac.uk. For general lab details please see: <http://www.sbes.stir.ac.uk/people/tinsley.html>. The project will be jointly supervised by Dr Luc Bussière, details of whose research can be found at: <http://www.sbes.stir.ac.uk/people/bussiere/index.html>. The anticipated start date is 1 October 2010 but is flexible.

Suitable candidates would have an interest in host-parasite evolutionary biology, disease ecology, immunology or ageing. The entry qualification for postgraduate studentships is a first class or upper second class honours degree in a relevant biological subject, or an appropriate Masters degree. You should contact Dr Tinsley to discuss funding options. Suitable candidates will be nominated for a NERC quota award studentship, Departmental research scholarship or University studentship, and may also be eligible for other funding sources depending on background.