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Dr Geraint Bevan
Email: request-6719-@x

RECORDS MANAGEMENT SECTION

The University of Edinburgh
Old College
South Bridge
Edinburgh EH8 9YL

Direct Dial 0131 651 4099
Switchboard 0131 650 1000
Fax 0131 650 2147

Dear Dr Bevan

Thank you for your email dated 26 January 2009, in which you asked for details of research involving animal testing undertaken at the University of Edinburgh, funded wholly or in part by cosmetics companies for each year since 1997. I am pleased to provide the following information in response to your request.

We have identified one research project which is partly funded by a cosmetic company. The current project licence covering this work was awarded in August 2005. The aims and benefits associated with the project can be found in the attached document entitled 'Cosmetic Company Funded Research – Project Details'.

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Yours sincerely

pp. Susan Graham
University Records Manager
susan.graham@ed.ac.uk

Cosmetic Company Funded Research - February 2009

Funding details: In July 2008 the researcher won a “fellowship for women in science” which was joint funded by L’Oreal and United Nations Educational, Scientific and Cultural Organization (UNESCO) and also involved the Royal Institution of Great Britain and the UK Resource Centre for Women in Science, Engineering and Technology. This fellowship has provided modest funds for the researcher’s work on malaria parasites.

Research aims: Malaria parasites cause some of the most serious infectious diseases of humans, our livestock, companion animals and wildlife. There is a great deal of research into the genetics, cell and molecular biology, and immunology of malaria parasites but despite this effort, malaria parasites remain a step ahead of medical science. The researcher’s work takes a broader view and considers how these parasites have evolved sophisticated strategies to maximise their ability to infect mosquito vectors, which they must do to be able to be transmitted to new hosts (infections). For example, malaria parasites have both an asexual- and sexual phase. The asexual phase is responsible for causing the symptoms of disease, but the sexual phase is responsible for transmitting parasites to mosquitoes. A large part of the researcher’s work is motivated by the need to understand the sex and social lives of parasites to help develop medical interventions to target them. Recently it has been discovered that, after mating, some parasites undergo apoptosis (a form of programmed-cell-suicide) inside mosquitoes, rather than infecting them. This seems to contradict ‘Darwinian survival of the fittest’ as parasites are expected to evolve strategies to maximise their proliferation not their death. The fellowship for women in science allows the researcher to harness recently developed experimental techniques to investigate why parasites have evolved to undergo apoptosis.

Expected benefits: Harnessing this suicide-like behaviour in parasites could offer a new paradigm to treat infectious disease – and could apply to parasites that cause leishmaniasis and sleeping sickness too – but requires an understanding of the evolution, physiology, and genetics of this behaviour first. More generally, there is an increasing demand to be able to use evolutionary principles to evaluate the likely short- and long-term success of medical inventions. However, the success of this endeavor hinges on understanding whether the basic biology of parasites can be explained by evolutionary theories.