HOME OFFICE LICENSING

Since the last meeting, the ERP Certificate Holder's Advisory Group has recommended two applications for amendments to existing project licences. The Committee is asked to receive and note these applications, which were:

Amendments:

Project Title: **Strategies for Brain Repair**

An application to amend an existing Project Licence. The application has been granted by the Home Office, and the lay summary is reproduced below for further information.

Project Title: **Induction of Anti-Viral Immunity**

An application to amend an existing Project Licence. The application has been granted by the Home Office, and the lay summary is reproduced below for further information.

BSO
25 November 2010

Lay Summary and Abstracts from Applications Processed by CHAG

Please note – These are for information only – no assessment by the Committee is needed

Amendment 1 – Strategies for Brain Repair

1. Lay summary: What the changes are:

Two amendments are requested as detailed below:

Change 1

To update swim maze trial and inter-trial intervals to make our licence consistent with other Cardiff Project licences.

Change 2

To update the adverse events section to allow for the rare occurrence of teratomas following tolerisation and or transplantation of stem cells.

2. Why the changes are needed:

Change 1

In pursuing Objective 2, authority already exists for improved methods of assessment of normal and abnormal motor and cognitive function in rats and mice relevant to assess impairment in animal models of neurodegenerative disease. The trial duration and inter-trial interval section of *Behaviour – swimming* has been up dated to make it consistent with other Cardiff Project Licences.

Change 2

In pursuing Objective 3, authority already exists to develop novel and improved strategies for repair and remediation of neurodegenerative damage and disease in the brain, based on neuroprotection, cell replacement (repair), and regenerative plasticity. The use of novel types of stem cells in transplantation and tolerisation raises the issue of a possible adverse event involving the formation of teratomas so the adverse event wording has been updated to include tolerisation and all stem cell types.

3. Species and number to be used

Both amendments apply to adult rats and mice used under protocol 1 and 5, no additional use of animals is required.

4 Effects on the animals:

Change 1

There will be no additional effects on the animals as the amendment of wording has been requested to make our licence consistent with other Cardiff PPL's to avoid confusion on water maze procedures.

Change 2

The update of wording on the adverse event has been requested to allow the use of novel stem cells as they become available. There will be no effect on the animals as the amendment is for a wording change.

5 Brief summary of the cost-benefit ratio of the proposal:

a) Costs to the animals:

Change 1

There is no additional cost to the animals.

Change 2

There is no additional cost to the animals.

b) Potential benefits:

All amendments will provide additional data to address Objectives 1 to 3, providing a valuable contribution to allow the development of improved animal models of human neurodegenerative damage and disease, which validly reproduce the neuropathology, pathogenesis and functional impairments of human disease, and within which to assess novel strategies for neural repair, neuroprotection and plasticity.

c) How the benefits outweigh the costs:

Change 1

The amendment benefits the animals as our PPL will be consistent with other PPL's held in Cardiff which in turn means consistency in water maze procedures.

Change 2

The amendments benefits the animals as the preventative measures will be documented and therefore minimise any possible adverse effects following stem cell transplantation and or tolerisation.

Amendment 1 – Induction of Anti-Viral Immunity

1 Lay summary: What the changes are:

Protocol 1 (Section 19b) has been amended to include administration of probiotics through dressing of normal food.

2 Why the changes are needed:

1. Infection with Influenza can cause immunopathology, which is often associated with severe disease. Part of the project described in this licence is to identify ways in which the immunopathological consequences of infection can be alleviated. One simple way in which this may be achieved is to alter the immune threshold of the host such that the response to the virus becomes more measured i.e. an adequate anti-viral response is mounted but the size of this response is limited. Probiotics have been shown to have downmodulatory effects on the immune system without necessarily compromising its function. We therefore wish to address whether administration of probiotics in food will limit the immunopathological consequences of infection with influenza virus.

3 Species and number to be used

- We will use inbred mouse strains for the probiotic studies. A maximum of 200 mice will be used in this way. No increase in overall mouse numbers is needed.

4 Effects on the animals:

Adverse Effects
No adverse effects of proviotics are expected in our study and the severity limit of the work will not be altered by inclusion of this procedure.

References

Abe F, Muto M, Yaeshima T, Iwatsuki K, Aihara H, Ohashi Y, Fujisawa T (2010). Safety evaluation of probiotic bifidobacteria by analysis of mucin degradation activity and translocation ability. Anaerobe; 16(2):131-6.
Lara-Villoslada F, Sierra S, Díaz-Ropero MP, Olivares M, Xaus J (2007). Safety assessment of the human milk-isolated probiotic Lactobacillus salivarius CECT5713. J Dairy Sci; 90(8):3583-9.
Yakabe T, Moore EL, Yokota S, Sui H, Nobuta Y, Fukao M, Palmer H, Yajima N (2009).Safety assessment of Lactobacillus brevis KB290 as a probiotic strain. Food Chem Toxicol; 47(10):2450-3.

5 Brief summary of the cost-benefit ratio of the proposal:

d) Costs to the animals:

A maximum of 200 mice will be used. It is not expected that any of these animals will experience discomfort as a result of probiotic intake.

6 Potential benefits:

The experiments may reveal that probiotic intake reduces the severity of disease caused by influenza infection. This would represent a simple and economical method of alleviating symptoms (and possibly reducing mortality) associated with influenza infection.

7 How the benefits outweigh the costs:

The procedure described above requires the use of additional animals and incur no adverse effects. The information gained could significantly improve our understanding of factors that control virus-induced immunopathology. These findings may later be used to refine strategies aimed at treating individuals infected with influenza virus.