University of East Anglia

Information Services Directorate

The L brary
University of East Anglia
Norwich Research Park
Norwich NR4 7TJ
United Kingdom

Email: foi@uea.ac.uk
Tel: +44 (0) 1603 593 523
Fax: +44 (0) 1603 591 010
Web: http://www.uea.ac.uk

[redacted]

28 February 2018

Dear [redacted]

Freedom of Information Act 2000 – Information request (ref: FOI_18-037)

We have now considered your request of 12 February 2018 for information relating to use of animals in research undertaken by this University.

Our response is on page 2 of this letter, together with a copy of your request.

We hope this information will meet your requirements, however if you are not satisfied you have the right of appeal. If you wish to appeal, please set out in writing your reasons for appealing and send to the above address. You must appeal within 60 calendar days of the date of this letter. Any appeal received after that date will not be considered nor acknowledged. This policy has been reviewed and approved by the Information Commissioner's Office.

You also have a subsequent right of appeal to the Information Commissioner's Office. Further information is available on their website: https://ico.org.uk/Global/contact_us, or by telephone on 0303 123 1113.

Please note that any material over which UEA has copyright is released on the understanding that you will comply with all relevant copyright rules regarding reproduction and/or transmission of the information provided.

Please quote our reference given at the head of this letter in all correspondence.

Yours sincerely

Dave Palmer
Information Policy and Compliance Manager
University of East Anglia

Response to Freedom of Information Act 2000 request (FOI_18-037)

I write in accordance with the Freedom of Information Act 2000 to request the disclosure of data held which concerns the use of animals in research by the University of East Anglia.

The information I wish to request is as follows:

1. By species: How many animals were used in research by the UEA from January 1st 2017 to December 31st 2017?

Our response is within the table below:

Species	Xenopus laevis	Xenopus tropicalis	Mice
Number of animals used under ASPA[1] procedures	133	41	10,908

2. How many animals were used in research relating to cardiovascular disease:

From January 1st 2017 to December 31st 2017.

From January 2013 - December 2017

Our response is below:

Period	Number of animals
January 01 2017 – 31 December 2017	60 mice
January 2013 – December 2017	300 mice

3. A summary of experiments, key findings, and species used for cardiovascular disease research.

We are using wild-type C57BL/6 mice to develop new drugs for the treatment of hypertension (high blood pressure). We employ wire and pressure myography to investigate artery function ex vivo using small caliber arteries isolated from mice. This work complements our work undertaken on human arteries. We have identified a key role for P2X receptors in controlling contraction and relaxation in arteries. We hope to target these receptors with new drugs to facilitate the development of new therapies in humans. There are three (3) relevant studies to report as follows:

Study 1

Designed to determine the effects of a dietary intervention with four different types of tomatoes, each expressing different types of polyphenols (10% dry powder incorporation), on atherosclerosis and lipid/lipoprotein metabolism in comparison to low polyphenol standard tomatoes. 92 transgenic mice were used.

Main results: Two of the polyphenol-enriched tomatoes caused significant reductions in atherosclerotic plaques whereas tomatoes containing two other types of polyphenols were ineffective. The effects appear to be largely independent of

[1] Animals (Scientific Procedures) Act 1986

lipoprotein metabolism although there were some modest effects on other lipid compounds.

Study 2

Designed to assess the effects of exogenous application of a strong pro-angiogenic growth factor (VEGF) on the rate of growth of atherosclerotic plaques in a mouse model of atherosclerosis, and assess if particular dietary polyphenols affected plaque growth in VEGF-treated and control animals. 108 transgenic mice were used

Main results: Effects of VEGF treatment on plaque size were not significantly different from controls, supporting the notion that angiogenesis does not drive the growth of atherosclerotic plaques. The polyphenols were shown to have strong anti-VEGF inhibitory activities in vitro, but inclusion in mouse diets did not affect the size of plaques compared to controls.

Study 3

Designed to assess the effect of oral sodium nitrite in the drinking water vs. matching placebo (sodium chloride) on the activity of cardiac pyruvate dehydrogenase (PDH). 40 wild type mice were used.

Main results: Oral nitrite increased plasma nitrate levels, liver nitrate levels, and skeletal muscle nitrate levels. Nitrite markedly altered the phosphorylation status of PDH. Work is still ongoing to verify and extend these results looking at cardiac PDH activity and glucose oxidation with nitrite therapy.