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Dr Gillian Grafton BSc, AKC, PhD

Research Fellow

Pharmacy, Pharmacology and Therapeutics

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About

Gillian Grafton is a research fellow. She has published numerous papers in scientific journals as well as reviews and book chapters in the fields of cell signalling, diabetes, immunology and pharmacology. She has received major grants from the Medical Research Council.

Qualifications

- HPC Registered Biomedical Scientist 2009
- PhD Medicine 1994
- BSc (Hons) Biochemistry 1984
- AKC 1984

Biography

Gillian Grafton qualified with a BSc (Hons) in Biochemistry from King's College London in 1984. After a brief sojourn as a clinical chemist she went on to study for a PhD in Medicine at the University of Birmingham. From there she went to the MRC Toxicology Unit in Leicester before returning to Birmingham to the Department of Immunology.

While at Birmingham she developed research interests in cellular signalling with a particular emphasis on calcium signalling. She has been an invited speaker at conferences organised by the Keystone Symposia, the British Society for Immunology, the Endocrinology Society and the Biochemical Society and was a regular reviewer for the journal Immunology.

After 14 years at Birmingham she spent some time working in the IT industry and then in the NHS before returning once more. She is currently in the Department of Pharmacology.

Postgraduate supervision

Gillian has supervised doctoral research students in the following areas:

- calcium signalling in B lymphocytes
- novel calcium channels in B and T lymphocytes

Research

The main emphasis of Gillian's work over the past 17 years has been the role of calcium channels in cell signalling. Key discoveries include the observation of a critical intracellular calcium threshold for B cell receptor-induced apoptosis. She showed that a novel calcium channel highly related to voltage-gated L-type channels plays a key role in this process. Subsequent work focussed on the regulation and expression of this family of channels. Although controversial to start with, the presence of these channels in cells in the immune system is now widely accepted.

Her current work focuses on the role of the serotonin system in the development and maintenance of tinnitus. There is currently no effective treatment for this debilitating condition. Recent evidence suggests that the serotonin system may play a key role. Her work involves a systematic study of the role of serotonin receptors in tinnitus with a view to the development of new treatment regimes.

Publications

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