

INTERNATIONAL WORKSHOP ON METHODS IN CARDIOVASCULAR PHARMACOLOGY

PROGRAMME

Friday 18 July, 2008

Session Chair: Fabien Brette

Time	Speaker	Title
9-9.25		registration
9.25- 9.30	Alison Gurney, University of Manchester	Welcome and introduction
9.30 -10.00	Mark Boyett University of Manchester	Overview of cardiac electrophysiology
10.00-10.30	Holly Shiels University of Manchester	Excitation-contraction coupling in the heart
10.30-11.00		Coffee break
11.00-11.30	Fabien Brette University of Manchester	Cardiac Ca ²⁺ channels
11.20-12.00	Rodolphe Fischmeister Université Paris Sud, France	FRET based probes to study ion channels in cardiac myocytes
12.00-12.30	Halina Dobrzynski University of Manchester	Molecular techniques to investigate ion channel biology in the heart
12.30-14.00		Lunch + posters
14.00-17.00		Practical demonstrations
19.00		Workshop dinner

Saturday 19 July, 2008

Session Chair: Alison Gurney

Time	Speaker	Title
9.00-9.30	Per Hellstrand University of Lund, Sweden	Organ culture methods in vascular research
9.30 -10.00	Alison Gurney University of Manchester	Single cell techniques in vascular research
10.00-10.30	David Beech University of Leeds	Ion channels in vascular smooth muscle cells
10.30-11.00		Coffee break
11.00-11.30	Kim Dora University of Bath	Ca ²⁺ signalling in endothelial and smooth muscle cells
11.20-12.00	Ian Fearon University of Manchester	Endothelial cell proliferation

12.00-12.30	Kath Hinchliffe University of Manchester	Inositol lipid signalling
12.30-14.00		Lunch + posters
14.00-16.30		demonstrations
17.00		Poster prize award and close

DEMONSTRATIONS

Six demonstrations are planned to run in the Faculty of Life Sciences laboratories on level 2 of the core Technology Facility, throughout both afternoons as follows:

	Demonstration	Chief Demonstrators
1	<i>small vessel wire myograph measurements</i> – this will cover the set up, mounting of vessels, endothelium removal, calibration and simple experiments involving the creation of dose-response curves	Boris Manoury
2	<i>myograph measurements on pressurised arteries</i> - this will demonstrate the equipment, preparation and mounting of vessels for pressure myography, pressure adjustment and measurement of vessel diameter in response to vasoactive agents.	Annie Geraghty
3	<i>fluorescence measurements of Ca²⁺ in vessels and cells</i> – this demonstration will cover the loading of cells and tissues with fluorescent dyes, basic concepts of fluorescence and confocal microscopy, combining fluorescence with myography techniques and the measurement of Ca ²⁺ signals in myocytes and intact blood vessels	A Gurney, I Fearon, K Dora
4	<i>isolated perfused heart</i> – this will demonstrate how to study cardiac function in an isolated perfused heart preparation.	H Shiels
5	<i>patch clamp of cardiac myocytes</i> – Students will be shown how to patch clamp freshly isolated cardiac myocytes and to record ion channel currents, including Na ⁺ and Ca ²⁺ .	F Brette
6	<i>Cell isolation techniques</i> – the essential steps required for isolating cells from cardiac and vascular preparations will be covered, including cardiac and vascular myocyte isolation and endothelial cell explant culture.	A Gurney, I Fearon, H Shiels, F Brette

The demonstrations should be able to accommodate around 4-7 students at a time, with students rotating around the demonstrations over the 2 afternoons.