

Calum Wilson
Lecturer B
Strathclyde Institute Of Pharmacy And Biomedical Sciences
Postal address:
United Kingdom
Email: c.wilson@strath.ac.uk
Phone: 01415484976



Employment

Lecturer B

Strathclyde Institute Of Pharmacy And Biomedical Sciences
University Of Strathclyde
United Kingdom
16 Feb 2015 → present

Research outputs

Endothelial PAR2 activation evokes resistance artery relaxation: PAR2 regulation of resistance arteries

Zhang, X., Lee, M. D., Buckley, C., Hollenberg, M. D., Wilson, C. & McCarron, J. G., 15 Feb 2023, (E-pub ahead of print)
In: Journal of Cellular Physiology. 14 p.

Mitochondrial ATP production is required for endothelial cell control of vascular tone

Wilson, C., Lee, M. D., Buckley, C., Zhang, X. & McCarron, J. G., 9 Feb 2023, In: Function. 4, 2, 16 p., zqac063.

Small-world connectivity dictates collective endothelial cell signaling: scale-free signaling in the endothelial network

Lee, M. D., Buckley, C., Zhang, X., Wilson, C. & McCarron, J., 28 Apr 2022, In: Proceedings of the National Academy of Sciences . 119, 18, 12 p., e2118927119.

Mitochondria regulate TRPV4 mediated release of ATP

Zhang, X., Lee, M. D., Buckley, C., Wilson, C. & McCarron, J. G., 31 Mar 2022, In: British Journal of Pharmacology. 179, 5, p. 1017-1032 16 p.

The selfish mitochondrion

McCarron, J. G. & Wilson, C., 31 Dec 2021, In: Cell Calcium. 100, 102498.

Photoactivated release of membrane impermeant sulfonates inside cells

Caldwell, S. T., O'Byrne, S. N., Wilson, C., Cvetko, F., Murphy, M. P., McCarron, J. G. & Hartley, R. C., 25 Apr 2021, In: Chemical Communications. 57, 32, p. 3917-3920 4 p.

Carbenoxolone and 18 β -glycyrrhetic acid inhibit inositol 1,4,5-trisphosphate-mediated endothelial cell calcium signalling and depolarise mitochondria

Buckley, C., Zhang, X., Wilson, C. & McCarron, J. G., 28 Feb 2021, In: British Journal of Pharmacology. 178, 4, p. 896-912 17 p.

Disrupted endothelial cell heterogeneity and network organization impair vascular function in prediabetic obesity

Wilson, C., Zhang, X., Lee, M. D., MacDonald, M., Heathcote, H. R., Alorfi, N. M. N., Buckley, C., Dolan, S. & McCarron, J. G., 1 Oct 2020, In: Metabolism. 111, 10 p., 154340.

FK506 regulates IP3 evoked Ca²⁺ release independently of FKBP in endothelial cells

Buckley, C., Wilson, C. & McCarron, J. G., 26 Jan 2020, (E-pub ahead of print) In: British Journal of Pharmacology. 177, 5, p. 1131-1149 19 p.

Hydrogen peroxide depolarizes mitochondria and inhibits IP₃-evoked Ca²⁺ release in the endothelium of intact arteries
Zhang, X., Lee, M. D., Wilson, C. & McCarron, J. G., 31 Dec 2019, In: Cell Calcium. 84, 12 p., 102108.

Increased vascular contractility in hypertension results from impaired endothelial calcium signaling
Wilson, C., Zhang, X., Buckley, C., Heathcote, H. R., Lee, M. D. & McCarron, J. G., 1 Nov 2019, In: Hypertension. 74, 5, p. 1200-1214 15 p.

Multi-plane remote refocussing epifluorescence microscopy to image dynamic Ca²⁺ events
Lawton, P. F., Buckley, C., Saunter, C. D., Wilson, C., Corbett, A. D., Slater, P. S., McCarron, J. G. & Girkin, J. M., 1 Nov 2019, In: Biomedical Optics Express. 10, 11, p. 5611-5624 14 p.

Endothelial TRPV4 channels modulate vascular tone by Ca²⁺-induced Ca²⁺ release at inositol 1,4,5-trisphosphate receptors
Heathcote, H. R., Lee, M. D., Zhang, X., Saunter, C. D., Wilson, C. & McCarron, J. G., 30 Sep 2019, In: British Journal of Pharmacology. 176, 17, p. 3297-3317 21 p.

Heterogeneity and emergent behaviour in the vascular endothelium
McCarron, J. G., Wilson, C., Heathcote, H. R., Zhang, X., Buckley, C. & Lee, M. D., 30 Apr 2019, In: Current Opinion in Pharmacology. 45, p. 23-32 10 p.

VasoTracker, a low-cost and open source pressure myograph system for vascular physiology
Lawton, P. F., Lee, M. D., Saunter, C. D., Girkin, J. M., McCarron, J. G. & Wilson, C., 21 Feb 2019, In: Frontiers in Physiology. 10, FEB, 17 p., 99.

Mitochondrial ATP production provides long-range control of endothelial inositol trisphosphate-evoked calcium signaling: mitochondrial control of endothelial Ca²⁺ signaling
Wilson, C., Lee, M. D., Heathcote, H. R., Zhang, X., Buckley, C., Girkin, J. M., Saunter, C. D. & McCarron, J. G., 18 Jan 2019, In: Journal of Biological Chemistry. 294, 3, p. 737-758 22 p.

Spatially-structured cell populations process multiple sensory signals in parallel in intact vascular endothelium: stimulus-specific sensory cells in the intact vascular endothelium
Lee, M. D., Wilson, C., Saunter, C. D., Kennedy, C., Girkin, J. M. & McCarron, J. G., 18 Dec 2018, In: Science Signaling. 11, 561, 20 p., eaar4411.

The endothelium solves problems that endothelial cells do not know exist
McCarron, J. G., Lee, M. D. & Wilson, C., 16 Feb 2017, (E-pub ahead of print) In: Trends in Pharmacological Sciences. 38, 4, p. 322-338 17 p.

Advancing age decreases pressure-sensitive modulation of calcium signaling in the endothelium of intact and pressurized arteries
Wilson, C., Saunter, C. D., Girkin, J. M. & McCarron, J. G., 30 Jan 2017, In: Journal of Vascular Research. 53, 5-6, p. 358-369 12 p.

Acetylcholine released by endothelial cells facilitates flow-mediated dilatation
Wilson, C., Lee, M. D. & McCarron, J. G., 15 Dec 2016, In: Journal of Physiology. 594, 24, p. 7267-7307 41 p.

Prizes

American Physiological Society International Early Career Physiologist Travel Award
Wilson, Calum (Recipient), 1 Mar 2018

AAAS/Science Program for Excellence in Science
Wilson, Calum (Recipient), 2016

American Association of Anatomists (AAA) Best Poster Award

Wilson, Calum (Recipient), 2015

ECPS 2014 Best Oral Presentation Award

Wilson, Calum (Recipient), 2014

ECPS 2016 Best Oral Presentation Finalist

Wilson, Calum (Recipient), 2016

SULSA Postdoctoral and Early Career Researcher Exchange Award

Wilson, Calum (Recipient), 2016

Santander Mobility Award

Wilson, Calum (Recipient), 16 Mar 2017

Sir Henry Wellcome Postdoctoral Fellowship

Wilson, Calum (Recipient), 17 Apr 2017

The Journal of Physiology Early Investigator Prize 2015

Wilson, Calum (Recipient), 20 Jul 2016

The Journal of Physiology Early Investigator Prize 2016

Wilson, Calum (Recipient), 17 May 2017

The Journal of Physiology Editorial Board Fellowship

Wilson, Calum (Recipient), 1 Jun 2018

Awards

A multicellular endothelial signalling web coordinates vascular function and is impaired in hypertension- EXT#1

McCarron, J., Buckley, C. & Wilson, C.

British Heart Foundation BHF: £399,358.50

1/09/25 → 18/01/26