

Donald G. Welsh, PhD
Chief Scientific Advisor of MVT in Silico company.
Resume, October 2024

Present Rank: Professor.

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Academic Record and Distinctions

- PhD in Biophysics, Faculty of Science, 1994
- Post-doctoral fellow, Dept. Cellular & Molecular Physiology, 1994-1997
- Post-doctoral fellow, Dept. Pharmacology, 1998-2001
- Canada Research Chair, Tier II, 2003-2013
- Research Scholar, Alberta Heritage Foundation for Medical Research, 2001-2013
- Senior Scientist, Robarts Research Institute, 2015-present
- Rorabeck Chair, University of Western Ontario, 2015-present
- Visiting Professor, Peking University, China, 2018-2022

Key Academic Duties

- Oversight Chair, VITAL Imaging Facility, Robarts Institute, 2019-present
- Executive Member, Idea Institute, 2022-present
- Executive Member & Chair, World Congress of Microcirculation, 2018-present
- Executive Member, International Liaison Committee for Microcirculation, 2015-present
- Editor-in-Chief, Microcirculation, 2016-present

Training Development

Since 2001, I have mentored 4 high school students and > 30 undergraduate students in the field of cardiovascular biology. I have also supervised 18 graduate students trained and 9 postdoctoral fellows who are now employed in academia and biotechnology/life sciences industry.

Research Support

I have maintained consistent peer review support since 2001 for organizations including the National Institute of Health, Alberta Heritage Foundation for Medical Research, Canadian Institute of Health Research, Natural Science and Engineering Council, Social Science Research Council of Canada, Canadian Foundation for Innovation and the Heart and Stroke Foundation of Canada with total funds exceeding \$18,000,000.

Research Interests and Productivity

My research centers on vascular ion channels and how the electrical events supported by gap junctions drive brain blood flow in normal and diseased states. My experimental approach begins at the biophysical level to develop mechanistic insight and then translate those findings into human tissues and live animal models of disease. My lab incorporates an extensive range of techniques (molecular biology, immunohistochemistry, electrophysiology, modeling, myography, MRI, and advanced microscopy). I have published >95 research manuscripts in high impact journals including Physiological Reviews, Circulation Research, ATVB and PNAS.