

Paul Durham

Distinguished Professor, Cell Biology at Missouri State University

Springfield, MO, US

Dr. Durham's research is directed at understanding the cellular and molecular mechanisms in models of migraine, TMJ disorder and epilepsy.

Description

Dr. Paul Durham is Distinguished Professor of Cell Biology at Missouri State University and Director of its Center for Biomedical and Life Sciences, a multidisciplinary laboratory that utilizes cellular/molecular, microbiological, biochemical and chemical techniques.

A primary goal of his research is to determine the signaling pathways by which inflammatory and anti-inflammatory agents control neuropeptide gene expression in disorders involving the trigeminal nerve.

Currently, he is studying the regulation of protein expression in cultured nerve and glial cells, human cell lines, in vivo animal models and clinical studies. A major focus of his research has been to elucidate the cellular/molecular mechanisms by which novel drugs and nutraceuticals modulate the excitability state of neurons and glial cells under pathological conditions in models of migraine, TMJ disorder and epilepsy. More recently, his laboratory has been investigating epigenetic mechanisms and changes in gut microbiota in response to changes in diet, sleep pattern, stress and chronic inflammation.

Dr. Durham is frequently invited as a guest lecturer. He has published more than 70 peer-reviewed research articles and more than 100 abstracts. He is a member of the Society for Neuroscience, the American Association for the Advancement of Science, the American Headache Society, the American Pain Society and the American Academy of Orofacial Pain. In addition, he has served on numerous study sections for the National Institutes of Health, as well as pharmaceutical company advisory boards, and is currently a reviewer for more than 10 journals.

Industry Expertise

Research, Education/Learning

Topics

Science, Biology, Molecular Biology, Health, Cell Biology, Life Sciences, Neuroscience, Chronic Pain, Inflammation, Migraines, Temporomandibular joint (TMJ) disorder, Calcitonin Gene-Related Peptide (CGRP), Fluorescence Microscopy

Affiliations

Society for Neuroscience : Member, American Association for the Advancement of Science : Member, American Headache Society : Member, American Pain Society : Member, American Academy of Orofacial Pain: Executive Committee Member, Frontiers, Neurology: Editorial Board Member

Education

University of Iowa

Ph.D. Anatomy and Cell Biology

University of Iowa

M.S. Plant Biochemistry

St. Ambrose University

B.S. Biology/Philosophy

Accomplishments

Patents

Dr. Durham is an author of 16 patents

Excellence in Teaching Award

2017

Missouri Board of Governorâ€™s

Foundation Award in Teaching

2017

Missouri State University

Foundation Award in Research

2016, 2010, 2007

Missouri State University

Atwood Research and Teaching Award

2015

Missouri State University

Service Award

2015

College of Natural and Applied Sciences, Missouri State University

Excellence In Innovation Award

2004

Awarded by Allergan

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