

# **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

---

[Please click here to view the full profile.](#)

This profile was created by [Expertfile.](#)