

CURRICULUM VITAE

Michael D. Brown, Ph.D.

Teaching Professor
Neuroscience Center
Department of Physiology and Developmental Biology
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EDUCATION

- Ph.D. Colorado State University. 1999. Anatomy. Molecular, Cellular, and Integrative Neurosciences Program. Thesis Advisor: Dr. James R. Bamburg. Thesis title: Regulation of the Actin Cytoskeleton during Cell Division and Neuronal Development by the Small GTPases Rac1 and Cdc42.
- M.S. Colorado State University. 1998. Anatomy. Program in Neuronal Growth and Development.
- B.S. Brigham Young University. 1993. Major: Microbiology. Minor: Japanese. Summa cum laude graduation honors.

PROFESSIONAL EXPERIENCE

- Teaching Professor, Brigham Young University, 2015-present
- Director, Neuroscience Center, Brigham Young University, 2010-2015
- Associate Teaching Professor, Brigham Young University, 2009-2015
- Assistant Teaching Professor, Brigham Young University, 2003-2009
- Instructor, Biology Department, Yakima Valley Community College, 2000-2003.
- Adjunct Faculty, Human Anatomy & Physiology, Front Range Community College, 1998-1999.
- Lecturer, Techniques in Neuroscience, Colorado State University, 1996-1999.
- Teaching Assistant, Human Anatomy & Physiology, Colorado State University, 1997.
- Teaching Assistant, Functional Neuroanatomy, Colorado State University, 1996.

AWARDS & HONORS

- Open Textbook Conversion Grant, Brigham Young University, 2016. *Competitive internal grant used to fund the development of an open-format anatomy textbook.*
- C. Joseph Rowberry Teaching and Learning Faculty Fellowship, Brigham Young University, 2015. *University-wide award and fellowship recognizing outstanding contributions in teaching and learning.*
- Karl G. Maeser Professional Faculty Excellence Award, Brigham Young University, 2014. *University-wide award for outstanding achievement in fulfilling professional faculty responsibilities of teaching and service.*
- Distinguished Faculty Award, Department of Physiology & Developmental Biology, Brigham Young University, 2013. *Department award recognizing outstanding achievement and service.*

Faculty Recognition Award, Accessibility Center, Brigham Young University, 2010. *University-level award for distinguished contributions, service and advocacy for accessibility.*

Continuing Faculty Status, Brigham Young University, 2009. *Analogous to tenure at other major universities in the United States.*

College Teaching Excellence Award, College of Biology and Agriculture, Brigham Young University, 2005. *College-level award for outstanding service and example in the classroom.*

Tenured Biology Instructor, Yakima Valley Community College, 2002

American Society for Cell Biology Predoctoral Student Travel Award, 1997.

Colorado Institute for Research in Biotechnology Fellowship, 1995-1996.

Colorado Graduate Fellowship, Colorado State University, 1994-1995

Full-Tuition Presidential & Continuing Student Academic Scholarships, Brigham Young University, 1988-1993.

COURSES TAUGHT

Human Anatomy with Lab (2012-present)

Advanced Neuroscience (2003-present)

Neuroanatomy (2003-present)

Neuroscience Laboratory (2003-2015)

Neurobiology (2003-2010)

Human Physiology (2007-2009)

Oral Embryology and Histology (2002-2003)

Human Anatomy & Physiology I and II (2000-2003)

Microbiology (2000-2003)

General Biology (2000-2002)

Biorhythms (collaborative course combining General Biology and Music Appreciation; 2001-2002)

PROFESSIONAL MEMBERSHIPS

Human Anatomy and Physiology Society, 2005-present

The Society for Neuroscience, 2004-present

Faculty for Undergraduate Neuroscience, 2004-present

Brigham Young University Neuroscience Center, 2003-present

SERVICE

University-Level

- General Education Design Committee, BYU, 2020-present
- University Council on Rank and Status, BYU, 2015-2019
- Director, Neuroscience Center, BYU, 2010-2015

College-Level

- College Curriculum Committee, College of Life Sciences, BYU, 2018-present
- Dean's Advisory Council, College of Life Sciences, BYU, 2015-2017

- Academic Grievance *Ad Hoc* Committee, College of Life Sciences, BYU, 2016
- College Research and Mentoring Committee, College of Biology and Agriculture, BYU, 2005-2009
- College Research Committee (*ad hoc* reviewer for MEG and ORCA grant applications), College of Biology and Agriculture, 2004-2005

Department-Level

- Executive Committee, Department of Physiology and Developmental Biology, BYU, 2018-present
- Department Curriculum Committee Chair, Department of Physiology and Developmental Biology, BYU, 2018-present
- Search Committee Chair, Department of Physiology and Developmental Biology, BYU, 2018-2019
- Department Self-Study Committee, Department of Physiology and Developmental Biology, BYU, 2018
- Department Rank & Status Committee, Department of Physiology and Developmental Biology, BYU, 2017-2018
- Department Curriculum & Teaching Committee, Department of Physiology and Developmental Biology, BYU, 2012-2018
- Search Committee Chair, Department of Physiology and Developmental Biology, BYU, 2011-2012
- Teaching Evaluation and Improvement Committee Chair, Department of Physiology and Developmental Biology, BYU, 2009-2012
- Search Committee, Department of Physiology & Developmental Biology, BYU, 2006

Neuroscience Center

- Neuroscience Internship Advisor, Neuroscience Center, BYU, 2016-present
- Neuroscience Undergraduate Curriculum Committee, Neuroscience Center, BYU, 2015-present
- Neuroscience Learning Outcomes Committee, Neuroscience Center, BYU, 2015-present
- Neuroscience Valedictorian Selection Committee, Neuroscience Center, BYU, 2015-present
- Graduation Clearance and Transfer Equivalency Committee, Neuroscience Center, BYU, 2004-2015
- Faculty Advisor to Neuroscience Students, Neuroscience Center, BYU, 2003-2015

PUBLICATIONS

- Brown, M.D. Physiology and Developmental Biology Teaching Portfolio. 2010. Chapter in *The Teaching Portfolio: a Practical Guide to Improved Performance and Promotion/Tenure Decisions*, 4th edition. Ed. P. Seldin, J.E. Miller and C.A. Seldin. San Francisco: Jossey-Bass.
- Brown, M.D. and M. Fingerma. Neurosecretion. 2006. McGraw-Hill Encyclopedia of Science and Technology, 10th edition.
- Brown, M.D., B.J. Cornejo, T.B. Kuhn, and J.R. Bamburg. 2000. Cdc42 stimulates neurite outgrowth and formation of growth cone filopodia and lamellipodia. *J Neurobiol* 43:352-364.
- Kuhn, T.B., P.J. Meberg, M.D. Brown, B.W. Bernstein, L.S. Minamide, J.R. Jensen, K. Okada, E.A. Soda, and J.R. Bamburg. 2000. Regulating actin dynamics in neuronal growth cones by ADF/cofilin and Rho family GTPases. *J Neurobiol* 44:126-144.
- Bamburg, J.R. and M.D. Brown. Neurobiology. 1999. McGraw-Hill Encyclopedia of Science and Technology, 9th edition.
- Kuhn, T.B., M.D. Brown, C.L. Wilcox, J.A. Raper, and J.R. Bamburg. 1999. Myelin and collapsin-1 induce motor neuron growth cone collapse through different pathways: Inhibition of collapse by opposing mutants of rac1. *J Neurosci* 19:1965-1975.

- Kuhn, T.B., M.D. Brown, and J.R. Bamburg. 1998. Rac1 dependent actin filament organization in growth cones is necessary for β 1 integrin-mediated advance but not for growth on poly-D-lysine. *J Neurobiol* 37:524-540.
- Brown, M.D., T.B. Kuhn, and J.R. Bamburg. 1999. Activation of cdc42 mimics the effects of soluble laminin on growth cone morphology and neurite outgrowth. *Mol Biol Cell (Supplement)* 10:384a. 39th American Society for Cell Biology. Annual Meeting. *Abstract/Poster Presentation*.
- Brown, M.D., B.J. Cornejo, and J.R. Bamburg. 1998. Cdc42 modulates neurite outgrowth and growth cone morphology. *Mol Biol Cell (Supplement)* 9:364a. 38th American Society for Cell Biology Annual Meeting. *Abstract/Poster Presentation*.
- Brown, M.D., and J.R. Bamburg. 1997. Regulation of the phosphorylation of *Xenopus* ADF/cofilin during cytokinesis by rac1. *Mol Biol Cell (Supplement)* 8:366a. 37th American Society for Cell Biology Annual Meeting. *Abstract/Poster Presentation*.
- Brown, M.D. and J.R. Bamburg. 1996. Role of the small GTPase rac1 in cytokinesis in *Xenopus* embryos. 9th Annual Colorado Biotechnology Symposium. *Abstract/Poster Presentation*.
- Brown, M.D. and J.R. Bamburg. 1996. Role of the small GTPase rac1 in cytokinesis in *Xenopus* embryos. 6th International *Xenopus* Conference. *Abstract/Poster Presentation*.
- Abe, H., T.A. Verrastro, M.D. Brown, L.S. Minamide, W.S. Caddoo, B.J. Agnew, T. Obinata, and J.R. Bamburg. 1995. *Xenopus* development is dependent upon regulation of ADF/cofilin by phosphorylation. *Mol Biol Cell (Supplement)* 6:22a. 35th American Society for Cell Biology Annual Meeting. *Abstract*.