



OWEN NADEAU, PhD

Operations Administrator, Vermont Center for Cardiovascular and Brain Health

- Center Roles: mentor Jr. Investigators and assist with grant and manuscript preparation; oversee day-to-day operations and Chair, Publications Committee.

Contact Information

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Research Interests

- Combining biophysical, biochemical and bioinformatics approaches to characterize allosteric transitions in large multi-subunit enzyme complexes.
- Role of phosphorylase kinase in the regulation of glycogenolysis as it pertains to memory consolidation in brain.
- Tandem MS, cell and animal model approaches to understand global proteome responses to alcohol and inflammation in brain microglia.

Expertise

- Developing chemical crosslinking and mass spectrometric (XL-MS) approaches to determine structural features and subunit contacts in oligomeric protein complexes.
- Use of XL-MS, cryo-EM 3D reconstruction and homology modeling to evaluate the structure and function of the 1.3 MDa phosphorylase kinase complex.
- Use of XL-MS data collected from protein oligomeric complexes containing intrinsic subunits of unknown structure to constrain atomic homology models of those subunits for optimal docking in cryo-EM envelopes of the parent complex.
- Use of MS-based proteomics to evaluate activated microglia phenotypes in animal and cell-culture models of alcohol abuse and inflammation in brain.

Academic and Industrial Positions

2020-Present **Operations Admin.—Vermont Center for Cardiovascular & Brain Health (VCCBH)**
Department of Medicine, University of Vermont – Burlington, VT

2018-2020 **Senior Scientist** - Albany College of Pharmacy & Health Sciences – Colchester, VT

2013-2017 **Research Associate Professor** - University of Kansas Medical Center – Kansas City, KS

2003-2012 **Research Assistant Professor** - University of Kansas Medical Center – Kansas City, KS

1999-2002 **Research Assistant Professor** - University of MO-Kansas City – Kansas City, MO

1997-1999 **Senior Scientist, Project Leader** - Hexos Incorporated – Bothell, Washington

1996-1997 **Post-Doctoral Fellow** – Dept. of Pathology, UT Health Science Center, Memphis, TN

1992-1996 **Post-Doctoral Fellow** – Dept. of Biochemistry, UT Health Science Center, Memphis, TN

Education

1991 **Ph.D.**, Biochemistry, University of Vermont, Burlington, VT

1984 **M.S.**, Organic Chemistry, Indiana University of PA, Indiana, PA

1981 **B.S.**, Chemistry, Indiana University of PA, Indiana, PA

Awards

1983 Academic Achievement Award – Indiana Univ. of PA

1983 Graduate Research Award – Indiana Univ. of PA

1992 American Heart Association Post-Doctoral Fellowship

2012 *Journal of Biological Chemistry* Paper of the Year – Bioinformatics Category

PUBLICATIONS

1991-present

Complete list of publications, including 52 research articles, reviews and book chapters:
<https://www.ncbi.nlm.nih.gov/sites/myncbi/10Kfozyicp5/bibliography/44042652/public/?sort=date&direction=ascending>