

MUS Research Centers and Institutes

***BOR Education
March 9, 2017***

Introduction

RESEARCH CENTERS & INSTITUTES

- **Funded by external grants, contracts & donations**
- **Research agendas driven by faculty specialties**
- **Duplication is warranted when highlighting Montana-specific research strengths; invites collaboration**

ACADEMIC PROGRAMS

- **Generally supported by tuition & general fund**
- **Formal coursework**
- **Attempts are made to avoid duplication among campuses**

UM Centers and Institutes

[Baucus Institute](#) (2015) Dean

[Bolle Center](#) (1994) Dean

[Broadcast Media Center](#) (1984) Dean

[Bureau of Business and Economic Research](#) (1948) VPR

[Center for Children, Families, and Workforce Development](#) (2015) Dean

[Center for Environmental Health Sciences](#) (2000) Dean

[Center for Ethics](#) (1996) Dean

[Center for Integrated Research on the Environment](#) (2015) VPR

[Center for Natural Resources and Environmental Policy](#) (1987) VPR

[Center for Riverine Science and Stream Re-naturalization](#) (2002) Dean

[Center for Structural and Functional Neuroscience](#) (2002) Dean

[Central and Southwest Asian Studies Center](#) (2010) Dean

[Clinical Psychology Center](#) (1983) Dean

[English Language Institute](#) (1993) Dean

[Flathead Lake Biological Station](#) (1899) VPR

[Humanities Institute](#) (2016) Dean

[Institute for Education, Research, and Service](#) Dean

[Institute for Gerontology Education](#) (2002) Dean

[Institute for Tourism and Recreational Research](#) (1988) Dean

UM Centers and Institutes (cont.)

[Institute of Medicine and Humanities](#) (1987) Dean

[Maureen & Mike Mansfield Center](#) (1983) Provost

[Montana Avian Science Center](#) (2004) Dean

[Montana Biotechnology Center](#) (1996) VPR

[Montana Center for Investigation & Treatment of Childhood Trauma](#) (2004) Dean

[Montana Center for Work Physiology and Exercise Metabolism](#) (2007) Dean

[Montana Cooperative Wildlife Research Unit](#) (1950) VPR

[Montana Forest Conservation Experiment Station](#) (1937) Dean

[Montana Museum of Art & Culture](#) (1954) Provost

[Montana Safe Schools Center](#) (2006) Dean

[Montana World Trade Center](#) (1995) VPR

[National Center for Landscape Fire Analysis](#) (2010) Dean

[Neural Injury Center](#) (2014) Dean

[O'Connor Center for the Rocky Mountain West](#) (1992) VPR

[Paleontology Center](#) (2005) Dean

[Rural Institute on Disabilities \(MUARID\)](#) (1978) Provost

Shafizadeh Rocky Mountain Center for Wood & Carbohydrate Chemistry (1994) Dean

[Western Montana RiteCare Childhood Language and Literacy Clinic](#) (1998) Dean

[Wilderness Institute](#) (1976) VPR

MSU Centers and Institutes

- [4-H Center for Youth Development](#) (2002) Director of Extension
- [Center for American Indian and Rural Health Equity \(CAIRHE\)](#) (2016) VPRED
- [Agricultural Marketing Policy Center](#) (2001) VP of Agriculture
- [Burton K. Wheeler Center for the Study of Public Issues in Montana](#) (1988) Dean
- [Center for Bilingual/Multicultural Education](#) (1982) Dean
- [Center for Biofilm Engineering](#) (1990) Dean
- [Center for the Communication of Science](#) (2015) Dean
- Center for Computational Biology (1999) Dean
- Center for the Discovery of Bioactive Compounds (1999) Dean
- [Center for Health and Safety Culture](#) (2016) Dean
- [Center for Interdisciplinary Health Workforce Studies](#) (2016) Dean
- [Thermal Biology Institute](#) (2000) VPRED
- [Center for Mental Health Research and Recovery](#) (2014) VPRED
- Center for Native Health Partnerships (2005) VPRED
- Center for Research on Chronic Health Conditions in Rural Dwellers (2013) Dean

MSU Centers and Institutes (cont.)

- [Energy Research Institute](#) (2002) VPRED
- [eXTreme Gravity Institute](#) (2016) Dean
- Humanities Institute (2005) Dean
- [Local Government Center](#) (1989) Director of Extension
- [Montana Engineering Education Research Center](#) (2017) Dean
- [Montana Manufacturing Extension Center](#) (1989) Dean
- [Montana University System Water Resources Center](#) (1985) IoE
- [Optical Technology Center](#) (1985) VPRED
- [Pollinator Health Center](#) (2016) VP of Agriculture
- [Center for Learning and Teaching in the West](#) (2005) Dean
- [Spatial Sciences Center](#) (1989) Dean
- [Spectral Information Technologies Laboratory \(Spectrum Laboratory\)](#) (1999) VPRED
- [The Center for Entrepreneurship for the New West](#) (2001) Dean
- [Wildlife Health and Disease Ecology](#) (1994) Dean
- [Western Transportation Institute for Advanced Rural Transportation, Technology, Research and Education](#) (1994) Dean

Other MUS Centers and Institutes

MSU Billings

- Center for the Northern Plains (1997)
- Center for Business Enterprise (1984)
- [The Montana Center for Inclusive Education](#) (1988)
- [Women's and Gender Studies Center](#) (2014)

MSU Northern

- Bio-Energy Center (2014)

Montana Western

- Charles G. Swysgood Technology Center (1980)

Montana Tech

- [Center for Advanced Mineral and Metallurgical Processing](#) (1989)
- Center for Advanced Supramolecular and Nano Systems (2007)
- [Center for Environmental Remediation and Assessment](#) (2000)
- Economic Development Resource Center (2003)
- Montana Math and Science Academy (2008)
- Rocky Mountain Agile Virtual Enterprise Technical Development Center (2003)

Statewide Centers/Institutes



- Established by the BoR in 2011 to manage the National Science Foundation EPSCoR RII award of \$20M over 5 years, the Institute on Ecosystems(IoE) is a first-of-its-kind experiment for Montana to build a state-wide institute on ecosystem sciences.
- Co-Directors: Dr. Maury Valett (UM) and Dr. Cathy Whitlock (MSU)
- Partners: Montana Tech, MSUB, Montana Climate Office, One Montana, USGS, Montana Water Center, MtnSEON, Aaniih Dakota College, Blackfeet CC, Great Northern LLC, Dept. of Interior NCCSC, Terra.
- Collaborative team: ecology (57), climate science (37), modeling (18), water resources (17), biogeochemistry (15), biological invasions (14), landscape ecology (14), fire (13), microbiology (13), remote sensing (13)

Synergy: Research Center Collaboration

Our veterans deserve the best care possible now and the opportunity to be a part of development of new standards of care.

We have combined the activities of two centers in hopes of improving access to novel treatments in clinical trials:

- Center for Mental Health Research and Recovery - MSU
- Neural Injury Center – UM
- Puget Sound VA

UM National Center for Landscape Fire Analysis



- The FireCenter improves wildland fire management through scientific innovation, creation of management tools, and production of future fire professionals.
- Partners: U.S. Forest Service, W.A. Franke College of Forestry & Conservation, The Nature Conservancy Georgia, National Park Service, MT DNRC, National Interagency Fire Center
- Funding: Primarily federal grants and contracts. Received \$900k MREDI award for DroneFire. The Center also provides academic support through the Fire Practicum and the Fire Club.

Notable Successes - UM

Center for Structural and Functional Neuroscience COBRE Funding \$10.76M,
Leveraged non-COBRE Funding \$40.5M, 207 publications

Center for Environmental Health Sciences COBRE Funding \$25M, Leveraged
non-COBRE Funding \$38.2M, 398 publications

Center for Biomolecular Structure and Dynamics COBRE Funding \$20.4M,
Leveraged non-COBRE Funding \$15M, 70 publications

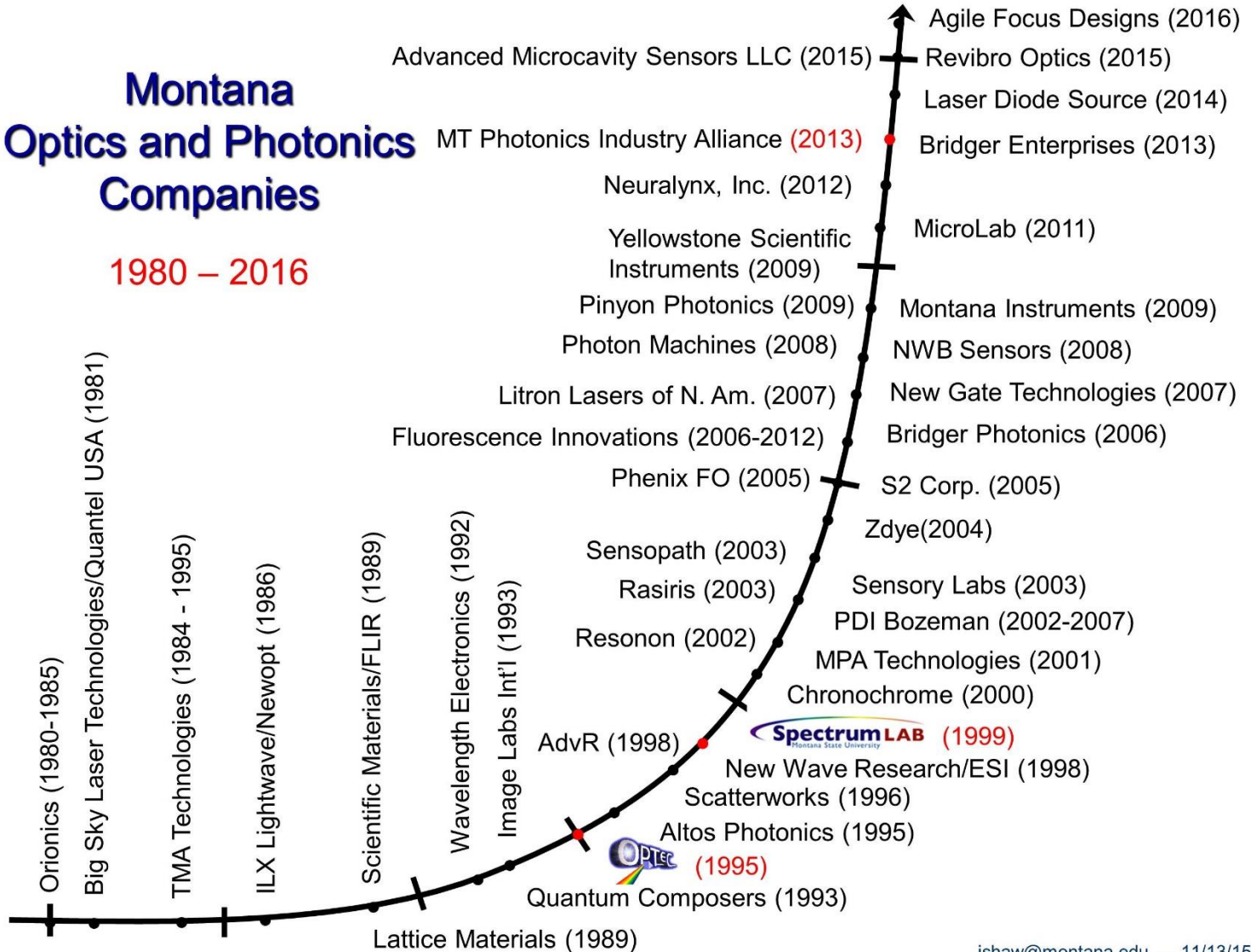
Center for Integrated Research in the Environment (CIRE) \$45M Army Corps
Research Contract

The Flathead Lake Biological Station is the second-oldest active biological field
research station in the US. It was established in 1899 by its first director, Dr.
Morton J. Elrod, UM Distinguished Professor of Biology.

MSU OpTeC

Montana Optics and Photonics Companies

1980 – 2016



Notable Successes - MSU

Center for Biofilm Engineering (1990s) – EPSCoR - has generated funding >\$75M, more than 1050 publications, awarded 235 graduate students with advanced degrees, and partnered with more than 100 companies.

Center for American Indian and Rural Health Equity - COBRE funding of ~\$11M. Focused on reducing health disparities in Montana's tribal and non-tribal rural communities through community-based participatory research.

Center for Mental Health Research and Recovery (2014) addresses mental health and suicide. The CMHRR has introduced novel suicide prevention methods in schools statewide.

The Energy Research Institute (2002) has sustained funding of >\$75M with projects on fossil fuels, alternatives, smart grids and energy security.

The Western Transportation Institute is focused on improving rural transportation options and is designated a top 10 National University Transportation Center in the U.S. Expenditures are >\$6M yearly.

Challenges/Opportunities

- Funding
- Duplication of effort
- Sunsetting of inactive centers

Benefits of Research Centers

- Magnify research strengths
- Create vibrant communities for students, faculty and staff
- Increase visibility for grant applications
- Enhance faculty recruitment and retention
- Can leverage resources across and between universities
- Provide expertise for mentoring and advising

Questions?