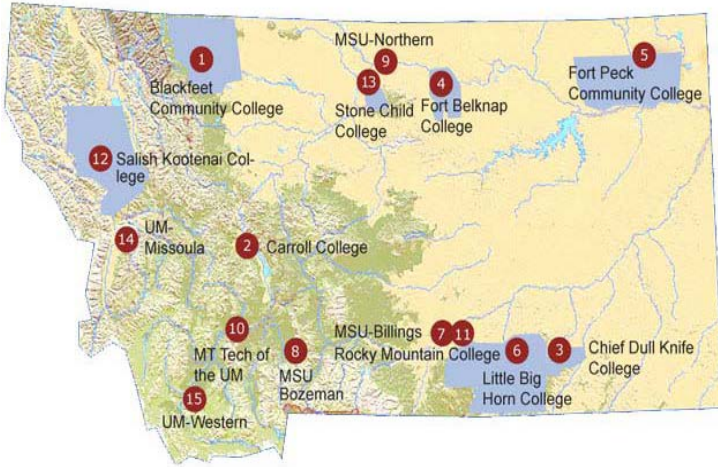


## The IDeA Program in Montana



IDeA programs in Montana include MT INBRE and four COBREs: Center for Zoonotic and Emerging Infectious Diseases, Center for Analysis of Cellular Mechanisms and Systems Biology, Center for Structural and Functional Neuroscience, and Center for Environmental Health Sciences. MT INBRE, a statewide network, funds research at MSU, UM, 5 Primarily Undergraduate Institutions (PIU), and all 7 of the state's Tribal Colleges. To date, \$101 million has been awarded to support the Montana IDeA programs. These programs have increased grant competitiveness, leading to \$120 million in additional new extramural grant funds over the last 10 years.

## IDeA Program Highlights

### MT INBRE

- 135 research projects across the state in infectious disease, environmental health, health disparities, and outreach
- 1,165 UG and Graduate Fellowships awarded; 1,995 elementary, middle school, and high school student research participants, including 24 middle and high school teachers
- 145 publications among statewide Project Leaders, including 66 co-authored by students
- Over 125 Tribal College students involved in research projects; 3 Native American Graduate Fellowships; and 2 Native American Post Docs
- 6 Tribal College Faculty hires in collaboration with EPSCoR
- Senior Investigator Hire in Health Disparities at MSU
- MSU and statewide infrastructure (Bioinformatics, UM's EM Facility, PUI and TC Research Labs)

### Center for Zoonotic and Emerging Infectious Diseases

- Research on invasive pulmonary aspergillosis, methicillin-resistant *Staphylococcus aureus* (MRSA), influenza, and pneumocystis.
- Translational research for development of novel therapeutics against *Coxiella burnetii*
- State-of-the-art flow cytometry, microscopy, and histology core facilities support regional research.
- Construction of new biocontainment facilities for research with small and large animal models

### Center for Analysis of Cellular Mechanisms and Systems Biology

- Mass spectrometry, proteomics, and metabolomics facilities benefit current and emerging research
- Research on improving algal biofuels, diagnosis and treatment of type 2 diabetes and Alzheimer's Disease, crops with enhanced nutrition, controlling chronic wounds, and human epilepsy
- Major advances in both the control of immune response during influenza infection and the use of virus particles in gene therapy through translational research using nanotechnology
- Focus on training and educating users to carry out advanced proteomics experiments

### Center for Environmental Health Sciences (CEHS)

- Research on acute and chronic inflammatory lung diseases (asthma, fibrosis, COPD), gastrointestinal diseases (Chron's Disease, inflammatory bowel disease), neurodegenerative diseases, and cancer
- Animal and human exposure facility and pulmonary function testing regional
- PhD program in Toxicology with excellent faculty placement for graduates

### Center for Structural and Functional Neuroscience

- Research on central nervous system structure and function in health and during disease pathogenesis
- Recruitment of 15 new faculty and establishment of cores for biospectroscopy and neuropharmacology
- Construction of a new 60,000 sq.ft. research addition shared with the CEHS
- Implementation of new Neuroscience and Medicinal Chemistry Ph.D. programs