



MONTANA
UNIVERSITY SYSTEM

Montana Grows Through Research

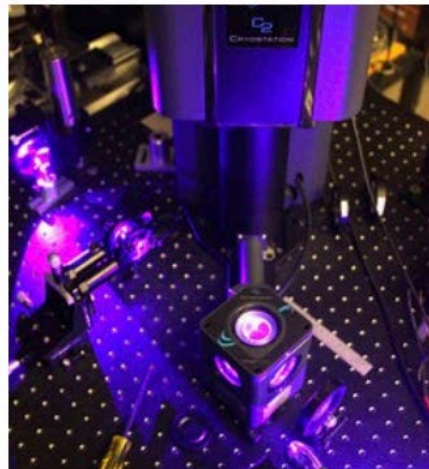
November 20, 2020



MREDI

 Montana Research & Economic
Development Initiative

- ❖ State funded seed money to leverage university-based research into strategic advancements for Montana's economy
- ❖ Specific goals:
 - Solve Montana problems with Montana solutions
 - Create good Montana private-sector jobs
 - Grow emerging research sectors to strengthen and diversify Montana's economy
- ❖ \$15 million appropriation to the MUS to carry out this initiative



RETURN ON STATE INVESTMENT

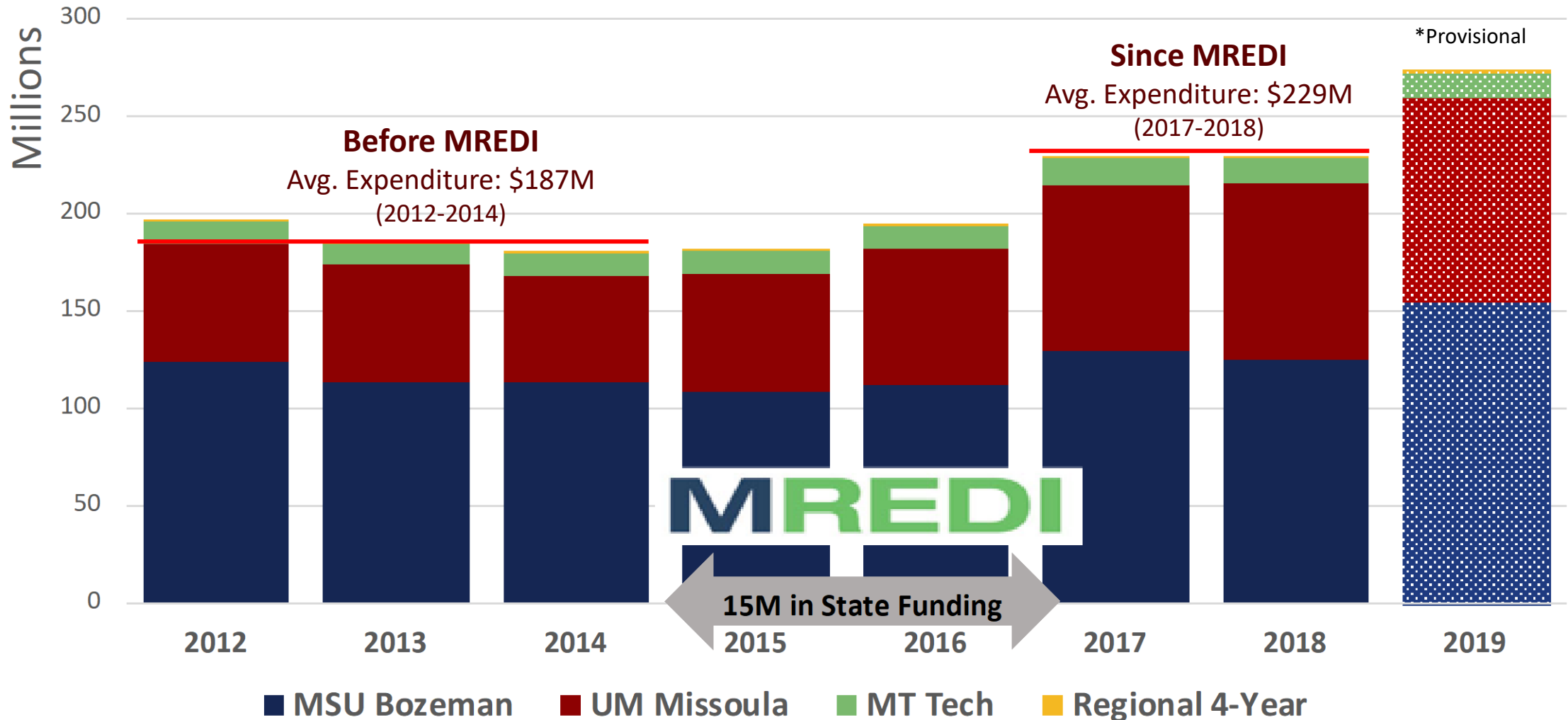
MREDI Montana Research & Economic Development Initiative

(end of funding period, 2017)

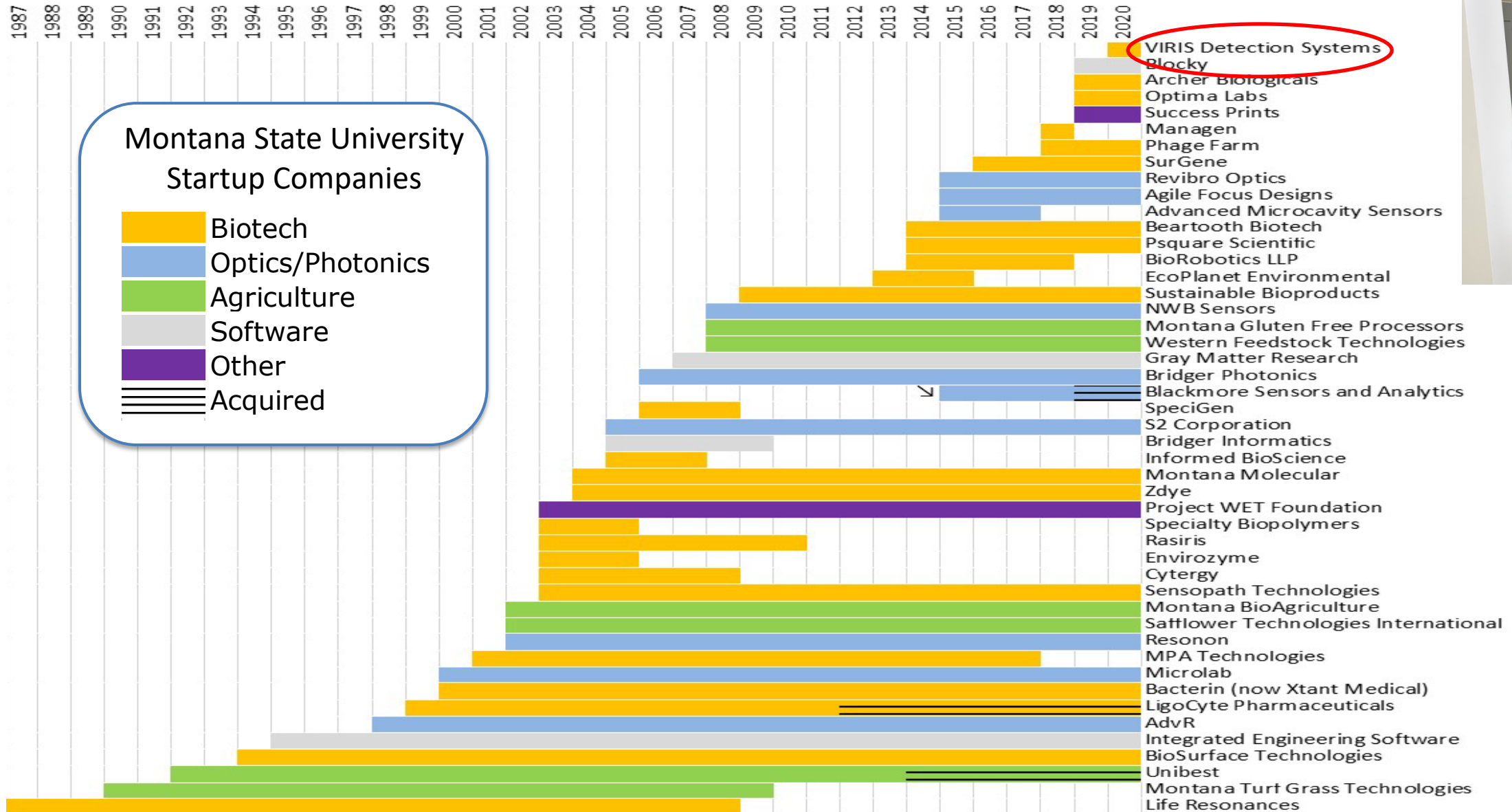
Total additional grants received:	\$57,567,717
Partnerships (private and public):	111 (77 private)
New Montana businesses:	12
Patents:	18
Total Jobs:	353
University:	287
Private:	66

Research Expenditures

(SOURCE: National Science Foundation HERD survey; values in nominal \$)



SPOTLIGHT : MUS Research is Driving Innovation





MISSOULA – The National Institutes of Health has awarded the University of Montana a five-year, \$33.4 million award for the development and clinical trials of opioid vaccines. It is the largest such award in University history.

COVID-19 Testing

FYR Diagnostics is partnering with the Montana community to offer COVID-19 testing using RT-PCR technology approved under Emergency Use Authorization through the FDA. Through these efforts we hope to reduce the burden of COVID-19 in our community.

Home » The Best Universities Solving the Coronavirus Pandemic

THE BEST UNIVERSITIES SOLVING THE CORONAVIRUS PANDEMIC

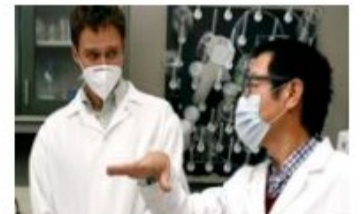
UNIVERSITY: RESEARCH

1. **Harvard University:** Vaccines
2. **University of Oxford:** Vaccines
3. **The Eli & Edythe Broad Institute of MIT and Harvard:** Diagnostics, Clinical Testing, Therapeutics, Surveillance, Disease Biology, Data & Portals, Videos and Seminars
4. **Colorado State University, Fort Collins:** 25+ Projects, including Vaccines
5. **Johns Hopkins University:** Interactive Contagion Mapping, Testing Results Numbers, Free Online Contact Tracing Class
6. **University of Georgia:** Vaccines
7. **University of Michigan, Ann Arbor:** Vaccines, Covid-19 Research Index
8. **University of Montana:** Vaccines
9. **University of Pittsburgh:** Vaccines
10. **University of Wisconsin-Madison:** Vaccines

LOCAL NEWS (Missoulian)

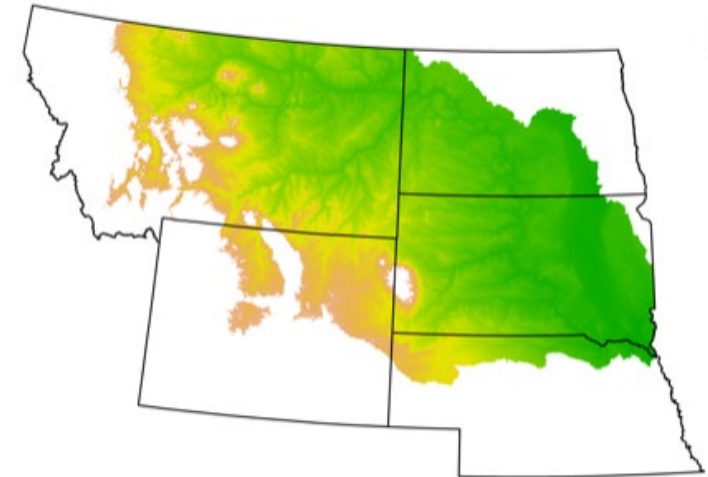
New UM lab to drastically increase COVID-19 testing in MT

David Erickson | Oct 9, 2020





MISSOULA – The Army Corps of Engineers has awarded a \$21 million contract to the Montana Climate Office at the University of Montana to install weather stations for monitoring snowpack and soil moisture in the Upper Missouri River Basin.



Credit: Ruben Benhke, SD Mesonet

Other project collaborators include Kevin Hyde, the Montana Mesonet manager in the Montana Climate Office; Kyle Bocinsky, research associate in the Montana Climate Office; Bruce Maxwell, professor of weed and invasive plant ecology at Montana State University; the Montana Department of Nature Resources and Conservation; and U.S. Natural Resources and Conservation Service.

SPOTLIGHT : MUS Research Solving MT Problems



Round 1: Bozeman Deaconess Partnership (April/May)



Round 2: DPHHS Partnership (July – present)



Round 3: Testing Capacity Grant (October – present)

Research Realizing the Land-Grant Mission of MSU

WHAT DID MREDI ACCOMPLISH?

- Oriented our universities' research capacity to Montana's needs and economic future
- Bridged the product development "valley of death"
- Enriched the education of hundreds of Montana students
- Made Montana's university-based research more competitive on the national stage
- **Forged lasting partnerships between faculty, companies, and communities**

2021 Biennial Budget Priority

MREDI (2.0)

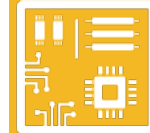
Montana Research Driving Montana's Innovation Economy

- Ever Closer Ties Between Researchers, Communities, Companies
- Building Capacity To Support Montana's Needs and Economic Future



MT GROWS THROUGH RESEARCH

- Grants of \$250k to \$2M to support transformative research addressing MT issues/needs
- Allocated by committee with industry, university, & legislative representation



TECH TRANSFER MT HUBS

- Five hubs for commercialization of research in MT's high-tech growth areas
- Ag & Life Sciences | Health Sciences | Computer & Data Science | Natural Resources | Materials Science



COMPETITIVE MATCH PROGRAM

- Competitive pool, administered by OCHE, to help faculty pursue federal grants requiring match
- Helps MUS researchers become more competitive on the national stage



CORE FACILITY VOUCHERS

- Subsidies to help MT small business leverage university equipment and analyses
- Increases collaboration between university researchers and regional industry
- Encourages new firms to site in Montana

STRATEGY 1: Invest in Transformational Research



Research grants ranging from \$250k to \$2M to support projects that:

- Address Montana issues/needs - *solve Montana problems with Montana solutions*
- Create Montana jobs - *create new Montana private-sector jobs*
- Help support the Montana economy - *grow research sectors that diversify Montana's economy*
- Provide a strong ROI to Montana – *leverage and grow the MUS research enterprise*

Funded projects selected by committee with industry, university, and legislative representation





OUR GOAL:

Nurture a culture on MUS campuses that brings innovations from lab to storefront

Acceleration Hubs: *focused on existing commercialization strengths*

- Ag & Life Sciences Hub (Bozeman) – 0.75 FTE & 750k grant pool
- Health Sciences Hub (Missoula) – 0.75 FTE & 750k grant pool

Generation Hubs: *focused on emerging commercialization strengths*

- Materials Science Hub (Butte) – 0.5 FTE & 300k grant pool
- Computer & Data Science Hub (Bozeman) – 0.25 FTE & 300k grant pool
- Natural Resources Hub (Missoula) – 0.25 FTE & 300k grant pool



STRATEGY 3: Increase National Competitiveness



- MUS faculty often do not submit for or cannot accept competitive federal grants due to a lack of available matching dollars.
- This \$2M competitive match funding pool would dramatically improve our faculty member's ability to seek and land external grant funding, which is then largely spent in Montana.
- Match dollars would be allocated based on how closely tied the funded research is to Montana priorities and the degree to which the grant builds areas of excellence in Montana's research enterprise.



STRATEGY 4: Partner With Montana Business



- Small businesses in high-tech sectors often lack access to costly equipment that is necessary to prototype innovations or conduct key analyses.
- This funding would create a subsidy for small enterprises to access cutting-edge university facilities and analyses.





**Funding for
basic research**



MREDI

**Montana Research & Economic
Development Initiative**

**MREDI
FILLS THE
GAP**



**PRIVATE
INVESTORS**

**Funding for
license-ready
technology**

University-Based Research—An Investment in Montana's Economy

When The State Invests In University-Based Research:

