

Collaboration

Governor Bullock Announces Grant Award to MRI for its Montana Center for Aging Research and Memory Care

“The time to invest in the research of the future is now,” Governor Steve Bullock said in his announcement of a grant for nearly a million dollars awarded to McLaughlin Research Institute in late April by the Montana Department of Commerce. **“The research that will be conducted as a result of this funding is poised to change the landscape of healthcare for millions of patients across Montana and the nation struggling with Alzheimer’s, Parkinson’s and other brain diseases. I’m proud that the State of Montana is continuing to support the McLaughlin Research Institute.”**

The \$904,500 grant takes MRI a big step closer to applying its promising research on degenerative brain diseases to patient care through a partnership with Benefis Healthcare. The funding will help establish the joint Montana Center for Aging Research and Memory Care to address the growing problem of dementia in Montana’s aging population.

“This is not an abstract discussion,” Governor Bullock told a crowd at MRI. **“We all have friends and loved ones we’ve cared for, prayed for, and worked with who are battling these challenging diseases,”** he said. **“I’m sure everyone in this room wants to see further advances.”**

Funding for those advances in medical research are harder and harder to come

by, as Benefis CEO John Goodnow pointed out. **“Funding is drying up at the national level,”** he said. **“As widespread as these diseases are becoming, it’s amazing there’s not more funding for this important research. Good for Montana for supporting it—I’m convinced it’s going to make a significant difference.”**

MRI Director George Carlson explained that the funding will make possible: “a totally new approach to the problem of degenerative brain diseases: developing new technologies for transplanting human cells into mice in order to study the disease process in a living animal. **We’re so grateful to the State for their past and present support,”** he said. **“This new grant is particularly exciting because it hasn’t been done before,**

to my knowledge – an excellent nonprofit community hospital teaming up with an independent nonprofit research facility to see how quickly we can translate our basic research into patient care.”

According to Dr. Carlson, the previous grants—totaling \$4 million—that MRI has received from the Montana Department of Commerce have helped generate \$70 million in out of state funds over a period of a dozen years. Commerce Department Director Meg O’Leary told the audience that “The economic impact of the State’s investment will be felt for years to come. In addition to advancing patient care and research, it will provide new jobs and educational opportunities to the Great Falls community. This facility is an outstanding asset to Montana.”



“What they study here at MRI affects everyone – it’s so important to keep this research going, and it needs our support,” said Representative Carlie Boland. Pictured from left: Randy Gray, Robert Mehlhoff, Carlie Boland, John Goodnow, Mitch Tropila, Governor Steve Bullock, Meg O’Leary, Gene Thayer, and Dr. George Carlson.

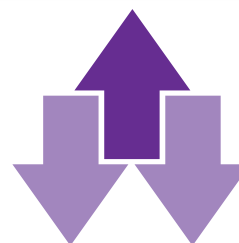
Curran Bequest Comes at a Critical Time

Mike Curran did not know that his keen interest in George Carlson's prion research at McLaughlin Research Institute would turn out to have relevance to his own health.

Not in time to help him, unfortunately, but his generosity saw to it that others will benefit. Before his death in 2002, Curran visited Dr. Carlson's lab periodically to learn about the research into prion diseases – the family of disorders that includes mad cow disease, which interested Mike as the owner of the Dearborn Ranch for nearly 40 years. In 1999 he made a large contribution that helped expand research at MRI.

When Mike and his wife, Kathleen, or "K.B.", as she was known, did their estate planning, they decided to include MRI as a beneficiary of the trust they established. After K.B.'s death in April 2013, MRI received \$1.4 million from the Currans' estate. ***"This wonderful gift comes at a time when the Institute needs more private contributions to replace the funding we're losing with federal budget cuts,"*** Dr. Carlson said. ***"It will help MRI make the transition that is underway to more clinically relevant research."***

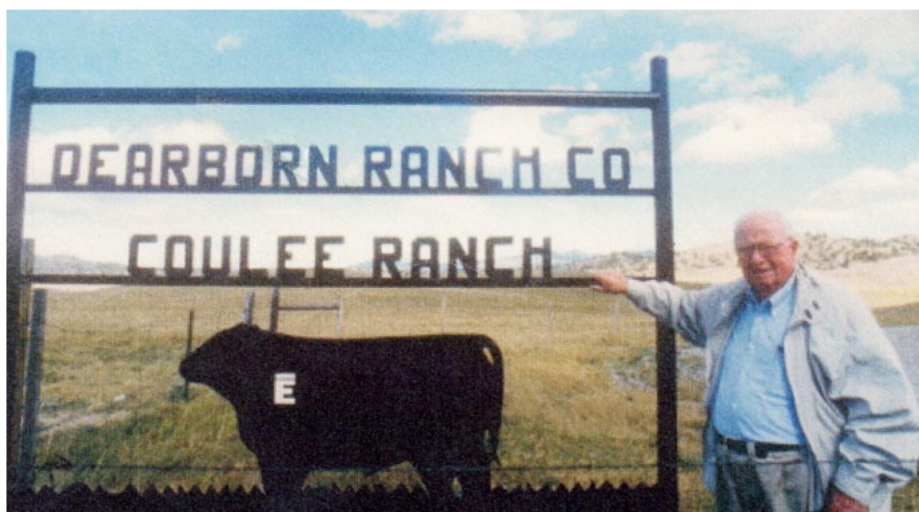
Dr. Carlson's early research played a key role in the discovery of the prion, a rare infectious protein that spreads by inducing other proteins to distort their shape in a similar fashion. In addition to mad cow disease and chronic wasting disease in deer and elk, prions cause very rare brain wasting diseases in humans. But in recent years, research into this rare form of disease has come to have very wide applicability as scientists have learned that another class of brain diseases which includes Alzheimer's and Parkinson's – also studied at MRI – spreads through the same protein "misfolding" mechanism. (In each disease, the particular misshapen protein is different.) This finding has opened up tremendous possibilities for understanding these neurodegenerative diseases and for preventing or curing them.



Since 2000, deaths from Alzheimer's have risen 68%—while deaths from other major diseases have decreased.

While Mike Curran also showed an interest in Dr. Carlson's Alzheimer's research, when he and K.B. chose to leave more than a million dollars to MRI he had no way of knowing he would develop Alzheimer's disease himself. Yet their gift has made it possible to advance the research into that disease as well as other brain diseases. "It seems an appropriate coincidence," according to the Currans' daughter Mary Barrett, of Helena, who worked with Alzheimer's patients for many years as a social worker and helped care for her father during his illness. "Dad was very gracious through it all; he held onto that Irish charm till the end," she said.

Mary is one of Mike and K.B. Curran's six children. After relocating to Montana from Tulsa in 1960, the family enjoyed recreating together on their beautiful ranch along the Dearborn River, near where Mike had spent many summers working on his uncle's neighboring ranch. The river inspired Mike's passion for fishing as well as his passion for protecting private property rights, and K.B. loved



Mike and K.B. Curran have left a legacy of hope for families like theirs who have suffered from Alzheimer's, Parkinson's and the other degenerative brain diseases studied by the scientists at McLaughlin.

her quiet walks to the river with her dogs. In addition to being an innovative cattle rancher with one of the largest operations around, Mike was a highly successful international oil pipeline contractor.

(In 1997, the Currans sold the Dearborn Ranch to software mogul Tom Siebel, known in Montana for his own philanthropy and his influential Montana Meth Project.)

The Currans were introduced to MRI many years ago by their close friends Sally and Jack McGregor. The McGregor family has played a key role in keeping the Institute alive throughout its history, both through their own generosity and through acting as ambassadors for MRI.

Back in the 1960s, when the Institute desperately needed a home, they asked their friend Jay McLaughlin to donate the cost of building a small building on the north side of Great Falls. Sally remains on MRI's National Development Council, and she and her daughter Bethann both served on the Board of Directors for many years. It is connections like the one between the McGregors and the Currans, with loyal MRI supporters encouraging their friends to learn about the Institute's important work, that will keep McLaughlin viable during an era of change in federal research funding.



Someone develops Alzheimer's every 68 seconds.

-alz.org

MRI's Integral Role in Educating Young Scientists

The impact of MRI's summer education program for students and teachers has come full circle.

During the mid-1990s, Nathan Gregier was a sophomore at C.M. Russell High School in Great Falls. His biology teacher, Josy McLean, had just spent two summers as an intern in Dr. Carlson's lab at MRI as part of the Partners in Science program. The enthusiasm Mrs. McLean brought back to class rubbed off on Nathan, which was precisely the goal of the program. He was so taken with science and with teaching it to young people that he eventually became McLean's colleague at "CMR," as the high school is known locally. **"To say that Josy was influential in my decision to go into science education is an understatement,"** Nathan said.

In recent years, high school teacher interns at MRI have been sponsored by either the M. J. Murdock Charitable Trust, through its Partners in Science program, or the Howard Hughes

Medical Institute's K-12 Science Initiative. HHMI has dropped its program, so this was the final year of funding from that source. For the past six years, in addition to funding the high school student portion of MRI's education program, HHMI has funded a two-year teacher program. High school science teachers spent one summer learning research in the lab and a second summer integrating that experience with curriculum development and application to the classroom.

Nathan Gregier participated in that two-year program in 2009-10, but he felt like he needed more time, both in the lab and to incorporate his experience into his teaching. He applied for a Partners in Science grant, which funded two more years at McLaughlin, in 2012 and 2013. He studied peripheral neuropathy in Dr. Gunn's lab. **"The knowledge we're gaining about this condition can be applied to other neurological diseases,"** he said.

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OUTER CIRCLE L TO R Brittny Gibbs, CMR Class of 2013; Kelsey Smith, Montana State University; Tom Cabbage, CMR AP biology teacher; Shelton Kingston, Senior, Centerville High School; Cory Cummings, Senior, Cascade High School; Nicole Aline, Senior, GFHS; Rachael Newmiller, AP biology teacher, Choteau High School; Allyson Hoof, science teacher, Cut Bank High School; Nathan Gregier, CMR Biology teacher and recipient MJ Murdoch Charitable Trust Partners in Science grant; **INNER CIRCLE L TO R** Josephine Coburn, Senior, University of California, Berkeley; Brandon Nelson, Sophomore, Carleton College, Northfield, MN; Alekses Clifton, Sophomore, Washington University, St. Louis, MO





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Educating Young Scientists

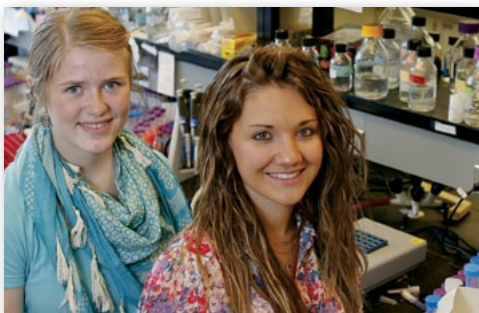
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My students look at me as someone who practices science, not as someone who just talks about it.

As a former student who had a role model in Josy McLean, Nathan Gregier is an example of the success of the program. "There are now two generations of teachers working at MRI," he said, when explaining that CMR's science department is filled with teachers who have spent summers at McLaughlin. They are a tight-knit group of dedicated educators constantly seeking to enhance their teaching, and they rely heavily on the Institute for that:

"MRI is the focal point of our ability to strengthen our science department at CMR. I hope the community can understand what an important part MRI plays in providing education in Great Falls and even in increasing funding for schools. Because of my internship here I am able to apply for a supplemental Murdock grant that will provide funding equivalent to 14 years of my regular budget for lab equipment for my students. The fact that we are lucky enough to have MRI in north central Montana makes such a difference. People should know that MRI is really impacting the schools."

—Nathan Gregier



Students Kelsey Smith and Nicole Aline

Mr. Gregier's colleague Chris Hibbert participated in the HHMI program six years ago. His excitement for teaching science is now so contagious that a student in his class two years ago decided she wanted to spend her life doing science, somehow. That led Britney Gibbs to an internship at MRI this past summer; she is now a freshman at Montana State University in Bozeman. She spent the summer in Dr. Gunn's lab working with Nathan Gregier. **"Everyone at MRI is great,"** she said, **"and this was the best summer ever."**

Over the past 20 years, from Josy McLean to Nathan Gregier, and from Chris Hibbert to Britney Gibbs, teachers have been inspiring their students to pursue science careers, and it all begins at McLaughlin Research Institute.

This year MRI reached the 60-year mark of training students in its labs. Irving Weissman was MRI's first student intern in 1954 and returned to MRI for many



Teachers Rachael Newmiller and Allyson Hoof

summers thereafter as he worked toward what became a stellar career in stem cell cancer research at Stanford University.

The generosity of Howard Bethel, Jim and Fran Wylder, the George & Sybil Upton Scholarship Fund, and an Anonymous Donor continues to make MRI's education program possible.

Annual Report Coming in October

The report will cover 2 years, with news from around the Institute, including developments in MRI's groundbreaking research, as well as information on our donors and the financial summaries for 2013/2014.

You can find the audited financial statement for 2013 on our website: www.mclaughlinresearch.org.

Go to About MRI > Media Center > Audits/990s.

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