

Creating Futures

University of Colorado *Anschutz Medical Campus*



*Improving Treatment, Care and Prevention. Pursuing a Cure.
Rocky Mountain Multiple Sclerosis
Center at Anschutz Medical Campus*

The 19th century “father of multiple sclerosis,” Jean-Marie Charcot, tried injecting patients with gold and silver, as they were helpful in treating the other major nerve disorder common at that time—syphilis.



Multiple sclerosis research has come a long way in the last 150 years.

Now, at the University of Colorado Anschutz Medical Campus, we’re poised to go even further.

You can help us beat this disease by supporting...

Earlier diagnoses

More individualized, accessible and integrated care

Therapies and treatments that address a broader range of symptoms, causes and systems

Research that identifies the disease’s complex triggers and effects



And someday, perhaps, a cure

Your gift today can help the Rocky Mountain Multiple Sclerosis Center at Anschutz Medical Campus become America’s leading center for multiple sclerosis care, research, training and support—for the benefit of millions worldwide whose lives have been affected by this disease.

An Unpredictable, Enigmatic Disease



John Corboy, MD, and Timothy Vollmer, MD

Multiple sclerosis (MS) is one of the more common neurological diseases, currently thought to afflict nearly a half million North Americans, and the most common cause of disability in young women. But for most of its history, MS has been a mystery.

Diagnoses have been hard to pin down, and often arrive late. Treatments and therapies have been slow to evolve, because the triggers that cause the disease to undermine and attack immune and nervous systems have been poorly understood.

Recent advances give us a fighting chance.

- **Enhanced technology** such as Magnetic Resonance Imaging (MRI) helps better identify evidence of MS.
- **New pharmaceutical therapies** help prevent disability, and enable patients to live longer and more comfortably.
- **Increased emphasis on rehabilitation** helps people with MS live more fully.
- **Innovative research** is producing treatments and strategies that mitigate the disease's effects on the brain and on motor functions.

While people with MS have more hope than ever before, we cannot yet reverse the disease's effects, nor keep it from occurring. Its cause remains elusive.

Taking Its Toll, Everywhere You Look

Multiple sclerosis can occur at any age, but it typically confronts patients between ages 18 and 40, leaving them with difficult decades ahead.

The disease's toll is physical, financial and emotional. Average annual costs of pharmaceutical treatment range from \$20,000 to upwards of \$60,000. Some with MS cannot work or receive public assistance, forcing taxpayers or family members to bear costs. The average MS case can incur lifetime costs of up to \$3.7 million, making it one of the most expensive chronic conditions. Add in multiple sclerosis's emotional burden on friends and family, and we have a disease that presents countless challenges.

Colorado is commonly believed to have one of the nation's highest MS incidence rates, as the disease is prevalent at the 40th parallel—which runs through the Denver metro area. As diagnostics improve and the region's population increases, Colorado will require more MS clinical and

rehabilitative care, and the world needs more research that benefits people with MS everywhere.

Fortunately, the University of Colorado is positioned to make a huge impact. We've launched a historic collaboration with the Rocky Mountain Multiple Sclerosis Center to create the Rocky Mountain Multiple Sclerosis Center at Anschutz Medical Campus, which leverages metro Denver's substantial MS expertise and infrastructure.

To enhance this collaboration, the University of Colorado is fundraising for physical space, faculty endowed chairs and research resources to enhance our work on behalf of friends and neighbors who have, or could develop, MS. You can help us expand upon a confluence of expertise and caring to make Colorado the hub of MS discovery, strategy, treatment and hope.

A Decades-Long History Fighting MS in the Rockies

Since long before innovative therapies eased MS symptoms and MRI technology enhanced disease diagnoses, University of Colorado-affiliated doctors and researchers have been leading the charge against multiple sclerosis.

The **Rocky Mountain Multiple Sclerosis Center (RMMSC)** has a 30-plus-year legacy of MS research, care and support services. The RMMSC is a founding member of an international MS center consortium, and its patient-centered education and long-term therapeutic programs have been resources for MS solution-seekers within and beyond the Front Range. By collaborating with this respected and recognizable partner, we've been able to serve the region with truly comprehensive MS care.

With more than 200 years of collective experience in related fields, University of Colorado Anschutz Medical Campus doctors and researchers have established CU as a national leader for MS care and research. The university and affiliates provide clinical care for nearly 2,000 people with MS annually, with doctors volunteering to help low-income patients through the Denver Health Clinic and the Metro Community Providers Network. Key research originating at the University of Colorado Anschutz Medical Campus on immunoglobulin function, novel therapies, stem cells, blood markers and cognitive dysfunction has spurred advances in, and new directions for, MS diagnosis and treatment.

In 2008, CU took its commitment to MS research and care to a new level by establishing the **Rocky Mountain MS Center at Anschutz Medical Campus**, a landmark collaboration between the region's two most



prominent MS centers. This is an ideal time to expand this relationship, as the University of Colorado Anschutz Medical Campus in Aurora—the largest investment in health care and research in the region's history—grows by leaps and bounds.

Under the clinical direction of neurologist and co-director John Corboy, MD, and with the 2008 addition of new co-director and renowned researcher Timothy Vollmer, MD, the Rocky Mountain MS Center at Anschutz Medical Campus aims to continue its growth and impact.



“As a collaborative, comprehensive center with basic and clinical research, clinical care, education, adult day care and physical therapy, we aim to be an internationally renowned destination for MS.”

John Corboy, MD
Co-Director, Rocky Mountain MS Center
at Anschutz Medical Campus

Achieving Our Mission, Leveraging Our Strengths

The mission of the RMMSC at Anschutz Medical Campus collaboration is fourfold:

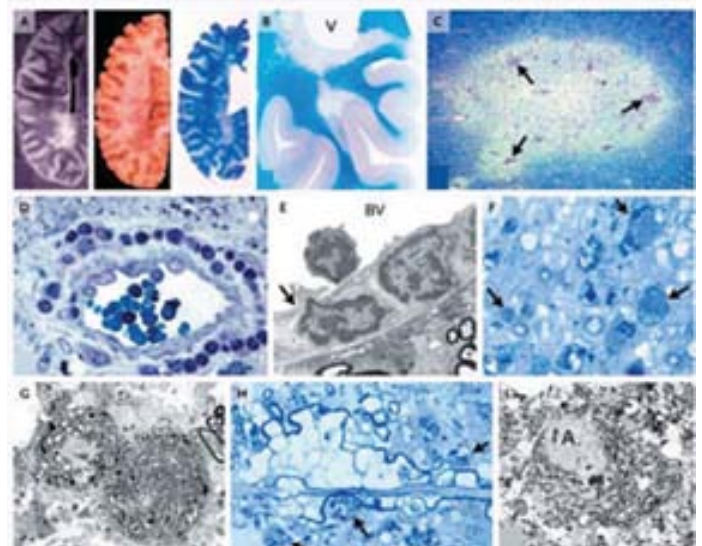
- To provide **progressive MS care and create sustainable treatment strategies**
- To conduct **clinical and basic neuroscience research** on the disease's cause, course and treatment
- To **train health professionals in myriad disciplines** to be tomorrow's leaders in MS care and research
- To be an **international educational resource** for MS

At the Anschutz Medical Campus, the Center builds upon:

- **Established regional momentum:** Denver boasts not only one major MS organization, but several. The University of Colorado has been a forerunner in research, clinical treatment and practitioner education, and the RMMSC has been a key provider of MS patient care and support. The regional headquarters for the National MS Society is in Denver.
- **State-of-the-art facilities and partnerships:** The Anschutz Medical Campus is home to University of Colorado Hospital and the new Colorado Clinical and Translational Sciences Institute, an academic hub that moves research quickly from labs into clinics. Starting this year, in collaboration with the Rocky Mountain Multiple Sclerosis Center, the campus will house one of the world's oldest and largest brain and tissue banks, established by the RMMSC in 1976, and which has been an invaluable resource for MS research.
- **A dream team of doctors and researchers:** Now more than ever, new MS research pathways and clinical approaches are being pursued at the University of Colorado's Anschutz Medical Campus—with explorations into new molecular agents, use of existing medications in new combinations and sequences and a clinical focus on proactive and aggressive treatment.
- **Crossdisciplinary synergies:** Because MS impacts so many systems and crosses so many medical fields—including neurology, ophthalmology, rehabilitation medicine and urology—proximity to expertise in many varied specialties is essential. The Anschutz Medical Campus's scale and talent enables a comprehensive approach to MS research and treatment.

- **Robust patient base for clinical trials:** Due to the region's high incidence of MS and large population base, Denver has a critical mass of patients for high-volume clinical trials—which itself attracts top researchers who can see their lab work go on to improve patients' lives. Recent legislative changes, on which the RMMSC advisory committee played a leading role, require insurers to cover the cost of routine care for clinical trials. These changes promise an improved climate for innovative treatments.

You can open up new possibilities at the University of Colorado Anschutz Medical Campus. Even the most committed doctors and researchers cannot overcome MS in a vacuum—it requires world-class talent, broad and deep resources, collaboration and a major center providing substantial momentum. Your support can help the RMMSC at Anschutz Medical Campus expand upon these advantages and opportunities at a critical time.



One of the nation's largest brain tissue banks, the RMMSC Brain and Tissue Bank, has for years been an invaluable resource for MS research, and will be housed at the Anschutz Medical Campus.

How You Can Help

Dedicated Space for the Center: Our immediate goal is to secure increased space dedicated solely to the care of MS patients and families—ideally, a section of a floor within the University of Colorado Hospital.



MS resources are spread widely across the Anschutz Medical Campus, potentially forcing people with MS to travel to multiple locations to meet their needs. The lack of proximity between the MS clinic, the physician offices, the research labs and the brain and tissue bank creates inefficiencies for doctors and researchers. The current space for MS clinical care is shared with neurosciences—

creating intense scheduling and equipment crunches, and inhibiting us from treating people with MS as comprehensively as possible. As we've recently scaled up in personnel and research activity, our space must increase accordingly.

Dedicated floor space will allow us to implement an evidence-based integrated approach to patient care, incorporate space for therapeutic and technological upgrades and facilitate joint research projects. Greater proximity of key personnel will increase efficiencies, and enable frequent and informal cross-center interactions that can inspire research breakthroughs. Dedicated space can be secured with a philanthropic investment of \$750,000 to \$1 million.

Endowed Faculty Chairs: Some of the nation's leading MS minds are here at the University of Colorado Anschutz Medical Campus. Juggling research, teaching, and clinical duties, faculty and staff workloads are intense. Endowed chairs provide the financial support necessary to retain and motivate the best and brightest clinicians and researchers in fields related to MS. They give researchers the gift of time, and accelerate the pace at which research can move.

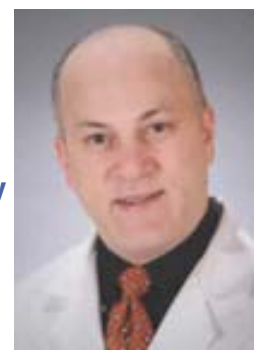


*Imagine being able to use a customized vaccine therapy that could inoculate you against MS? **Timothy Vollmer, MD** is working with a molecular agent that could lead to just this sort of outcome.*

"We want to redesign the way we treat MS. We want to treat early and aggressively, shut down inflammation and stabilize the disease. Then we can hope to prevent disability."

Our aim is to create the national comprehensive care center for MS that includes clinical care, leading research, education and referral services for people with MS and their families, specialist services, individualized disease strategy development and clinical trial activity. While the RMMSC at Anschutz Medical Campus already competes in many of these areas, endowed faculty positions will encourage growth in faculty and capacities, and help us reach the next level of development.

*Optic neuritis can be an early indicator of MS and other demyelinating conditions such as neuromyelitis optica (NMO). University of Colorado Anschutz Medical Campus neurologist **Jeffrey Bennett, MD, PhD** is leading the way towards understanding the causes of optic neuritis, MS and NMO. His groundbreaking research may enable early diagnosis of demyelinating diseases and identify new targets for disease therapy.*



Opportunities Abound at RMMSC at Anschutz

- **Flow cytometry** is an emerging medical-research technique that holds great promise for the study of blood cells. A flow cytometer is an integral piece of equipment that would help researchers more efficiently pursue advances in this realm. An investment of \$150,000 will enable this purchase.
- Magnetic resonance imagery is the most effective method for diagnosing and monitoring MS. Currently, our clinical MS team shares an MRI scanner at the University of Colorado Hospital, and it is increasingly difficult to schedule time on the existing machine. **A dedicated MRI scanner** will help us identify lesions along the spinal column and within brain tissue, speeding some MS diagnoses and furthering research. An investment of \$1.5 million can enable this purchase.



*Neurologist **Augusto Miravalle, MD** is one of the newest members of the MS team at the Anschutz Medical Campus, fresh from a fellowship at Harvard University, and with a strong reputation for proactive patient care.*



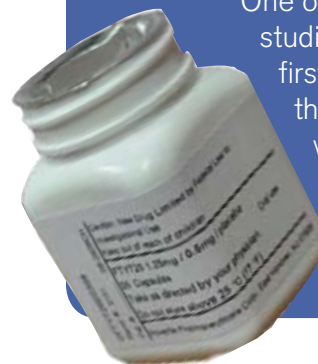
- The University of Colorado Anschutz Medical Campus is dedicated to training tomorrow's doctors, serving more people with MS by providing comprehensive care and research support for high-priority research projects. **Fellowships in MS clinical care and basic research** will achieve these ends. An endowed fellowship can be created with a gift of \$1 million, or an annual commitment of \$50,000.
- The substantial expense of MS testing, clinical visits, lost work time and high-cost pharmaceutical treatments can be beyond the means of many with MS. We aim to create an **endowed Director's Fund** to help fill funding gaps as they appear for clinical care and research. This fund would permit Center leadership the flexibility to target funding toward people and projects so as to have the greatest impact.

Naming the Center: A Transformative Gift

UC Denver has the expertise, the resources and the opportunity to make a substantial leap toward mitigating and eliminating disease on a global scale. You can make a singular naming gift toward the RMMSC that would open up unprecedented opportunity to improve MS care, education and research—and leave a personal legacy that will be a testament to this vision for generations to come.

A Hotbed for Clinical Trials

One of the more than 20 active studies at the Center could be the first disease-modifying therapy that can be administered orally, which could give people with MS a more convenient, lower-cost therapeutic option.





The team at the Rocky Mountain MS Center at the Anschutz Medical Campus

To learn about the many ways you can make a gift:

Contact

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The various treatments of poet and neurological disease sufferer Heinrich Heine in the 19th century included morphine, leeches, and bloodletting.



We've made great strides since then.
 And we're poised for more.

Our research leads to breakthroughs in MS care. Our clinical care is unparalleled and patient-centered. Our outreach bridges the uncertainty between diagnosis and daily life with MS, supports family members and increases the number of team members working on behalf of MS support.

With your help, the Rocky Mountain Multiple Sclerosis Center at Anschutz Medical Campus will accelerate progress against this disease.

Rocky Mountain MS Center at Anschutz Medical Campus



All gifts should be payable to the University of Colorado Foundation, specifying the appropriate fund.