

## THE CENTER FOR MUSCULOSKELETAL RESEARCH



The Center is directed by Edward M. Schwarz, Ph.D., the Richard and Margaret Burton Distinguished Professor in Orthopaedic Musculoskeletal Research. Dr. Schwarz's pioneering work is leading to potential new treatments for diseases such as rheumatoid arthritis, bone infections, and tissue regeneration.



Stephen L. Kates, M.D., the Hansjörg Wyss Professor of Orthopaedic Surgery serves as associate director. Dr. Kates' Geriatric Fracture Center Model of Care has been emulated around the world. He is currently overseeing numerous research projects aimed at combating infections following bone and joint surgery.

The  
**MELIORA**  
CHALLENGE

THE CAMPAIGN *for the*  
UNIVERSITY OF ROCHESTER



## *Research to Revolutionize Orthopaedic Care*

Imagine being able to grow new bones to help a loved one walk again...or repair the tendons in hands that were rendered useless...or develop a new therapy that avoids total joint replacement. Researchers in the Center for Musculoskeletal Research (CMSR) at the University of Rochester Medical Center have proven that these technologies work in pre-clinical studies. With your help, we can advance human musculoskeletal health.

Our investigators have developed a solution for large, long bone defects in the leg or arm due to a tumor or trauma. Stem cells harvested from the hip bone are grown and transplanted back into the patient, bringing the bone back to life. They have also developed a tissue engineering solution to repair tendons in the hands and tears in the rotator cuff in the shoulder. And although total joint replacement surgery is renowned as the most successful medical procedure developed in the 20th Century, many patients suffer afterwards due to plastic and metal wear debris particles generated from the prosthesis. Our investigators are testing antioxidant biomaterials and a novel drug therapy as solutions for both of these problems.

The Center's Biomechanics Lab is currently using non-invasive 3D imaging and similar techniques to identify musculoskeletal problems and develop tissue repair and surgical solutions. An expanded laboratory facility would help us test these new technologies and get them into clinical trials to help people.

*"In the future, we will translate our laboratory findings to orthopaedic patients, providing you with care tailored to your personal needs.  
Your support can lead the way."*

—REGIS J. O'KEEFE, M.D., PH.D., CHAIR AND  
MARJORIE STRONG WEHLE PROFESSOR IN ORTHOPAEDICS

# Your gift can help us *Revolutionize Orthopaedic Care*

Established in 2000, the creation of **the Center for Musculoskeletal Research (CMSR)** at URMCM formalized a distinguished 25-year history of multidisciplinary, comprehensive research led by experienced physicians and biomedical scientists to improve people's bone, joint, and muscular health. Since its founding, it has consistently ranked in the nation's top 5 NIH-funded orthopaedic research programs and was **ranked number one in 2012**.

Nearly 25 faculty members from a variety of departments have individual labs supporting more than 75 scientists who have shared research interests. Together, we work to address the most challenging questions in the musculoskeletal sciences, and train young investigators whose promising research will help advance musculoskeletal health.

Here is a sampling of how you can help us revolutionize orthopaedic care. Please join us.

## **THE BIOMECHANICS LAB & ENDOWMENT FUND—\$500,000**

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\$300,000 of your investment will support laboratory renovations. Facilities support has an immediate impact, helping us promote collaborative research, medical education, and regional and global outreach. You can also support the technology that speeds the path to new therapies and cures, yet adds heavily to research costs.

\$200,000 of your investment will support an endowed research fund. Endowed programmatic support serves as a lasting tribute in your name, providing permanent, uninterrupted sources of funding for our exceptional scientists and educators, and our most promising graduate students, now, and for generations to come. Our entrepreneurial, innovative research teams have a legacy of working collaboratively across disciplines to advance musculoskeletal health.

## **RISEING STAR FUNDS—\$250,000 to \$500,000 (MULTI-YEAR)**

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Support at this level can help the best and brightest, early-career researchers fund promising science that may be too cutting-edge to attract external funding from traditional avenues of support like the National Institutes of Health (NIH); work that is vital to scientific discoveries and advances.

## **BRIDGE FUNDS—\$100,000**

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As government research funds become more restrictive, it is increasingly difficult for both well-established and new investigators to maintain funding when there is an interruption in NIH funding—interruptions that can have a significant, negative impact on the research being conducted. Private philanthropy is an essential stopgap measure to sustain promising science and highly meritorious research projects.

## **PILOT PROJECTS/SEED FUNDS—\$50,000 to \$100,000 (ANNUALLY)**

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Gifts for seed funding are “risk capital.” They allow scientists to shift the direction of their research to follow promising leads or new ideas, propelling scientific discoveries in new ways. You can help give researchers the time they need to push the boundaries of science and allow innovative ideas to reach their full potential.



UNIVERSITY of  
**ROCHESTER**  
MEDICAL CENTER

MEDICINE of THE HIGHEST ORDER

## **URMC CENTER FOR MUSCULOSKELETAL RESEARCH**

For more information about how your gift can make an impact, please contact Peggy Martin at:  
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