

Center for Musculoskeletal Research
Strategic Plan
Updated 8/25/2022

Mission A mission statement answers the question, “Why does our Center exist?”

To be world leaders in musculoskeletal research and education focused on discovery and translation of innovations that improve human health.

Vision A vision statement answers the question, “Where do we see the Center going?”

1. Achieve scientific breakthroughs that lead to novel diagnostics and treatments and improved standards of care.
2. Train the next generation of leaders in musculoskeletal investigation.
3. Sustain preeminence as a top-funded center in musculoskeletal research.

Values

1. Collaboration, Collegiality, and Team Science
2. Innovation
3. Diversity and Inclusion
4. Education and Training
5. Integrity and Transparency

Inclusion Statement

At the Center for Musculoskeletal Research, we as a community continually strive to create an inclusive and safe environment for all people. We welcome diversity and believe that different life experiences provide different approaches to problem-solving, thus, enhancing our collective ingenuity in science and medicine. By embracing our individualities, we foster effective communication, collaboration, and accountability among all members. We are proud of our diverse and intersecting identities which include, but are not limited to race, ethnicity, nationality, gender-identity, sexual orientation, age, ability, religion, culture and education. We are accountable to the inclusion of diverse membership which enables us to share our research worldwide as we endeavor to make the world ever better through increased understanding of musculoskeletal science, engineering, disease, and public health.

CMSR Strategic Goals

- 1. Build a culture of leadership, transparency, collaboration, effective communication, and inclusivity**
- 2. Top-notch recruitment, training, and retention of Investigators**
- 3. Increase and maintain grant and endowment funding**
- 4. Obtain and maintain state of the art equipment**
- 5. Enhance diversity in musculoskeletal research**

Strategic Goal 1:

To build a culture of leadership, transparency, collaboration, effective communication, and inclusivity.

Strategies	Target Dates	Ownership
Development of a transparent leadership structure, including well-defined criteria for Senior Leader membership, while engaging several levels of faculty in discussions to gather perspectives of issues important to the Center: <ul style="list-style-type: none"> - Clarify decision-making guidelines for Committees vs. Senior Leadership. - Established structure and guidelines that outline Committee charges, decision making responsibilities and reporting structure. - Assess CMSR activities and practices from a D&I perspective. 	12/31/2022	Senior Executive Committee
Establish and communicate clear expectations relating to how faculty are expected to contribute to CMSR, and what they can expect from CMSR membership: <ul style="list-style-type: none"> - Define the expectations and responsibilities of CMSR membership. - Clear expectations re: CMSR administrative functions (ex. T32/courses). 	Year 1	Senior Executive Committee

<p>Increase transparency and provide regular information updates concerning relevant collaborative CMSR research programs and grant submissions, CMSR new members and grants, and/community engagement:</p> <ul style="list-style-type: none"> - Increase utilization of the CMSR website. https://www.urmc.rochester.edu/musculoskeletal-research.aspx - Create a page within the CMSR website devoted to D&I that includes community outreach activities. - Create a page within the CMSR website devoted to Best Practices in Rigor and Reproducibility - Establish a relationship with advancement to more broadly disseminate the CMSR mission and achievements to the medical center and wider research community. 	Year 1	All CMSR Faculty
<p>Increase collaboration and connection between the CMSR scientists and the Clinicians:</p> <ul style="list-style-type: none"> - Establish Clinician Engagement Committee with representatives from both the clinical and research side. <ul style="list-style-type: none"> - Need to invite members - Create functional dyads between clinicians with professed interest in forging a relationship with the CMSR and CMSR investigators. <ul style="list-style-type: none"> - Review current dyads and suggest new dyads - Foster connections between clinicians who are unsure of how to engage CMSR and vice versa; Schedule two CMSR and Faculty get-togethers in the remainder of Academic Year. <ul style="list-style-type: none"> - Send out nudge emails to clinicians - Increase collaboration at the level of Clinical Research Committee and CMSR. <ul style="list-style-type: none"> - CRC involvement in planning of the clinical part of the symposium - Discuss the clinician engagement committee plan at the CRC and solicit feedback. Increase the collaboration between the two committees. - Educate clinical faculty as to the interests of the CMSR faculty. Encourage CMSR presentations at Ortho Grand Rounds (GR). Will schedule CMSR faculty for at least 1 GR per year. Will have 2 CMSR faculty per GR, and CMSR Grants Administrator to present ORPA rules for all grants and contracts at the annual Orthopaedics Boot Camp. <ul style="list-style-type: none"> - To coordinate with Drs. Rubery/Baumhauer - Add a page to CMSR website that presents translational research, grouped into clinical areas; Assign web design resource including open clinical trials. <ul style="list-style-type: none"> - Email clinical, research faculty to send in summaries of translational work 	Year 1-2 Work has yet to start.	Clinician Engagement Committee

<ul style="list-style-type: none"> - Trials currently do have a tab on the website. Can periodically update with Ashley Owens' inputs. 		
<p>Evolve the organization of the CMSR to facilitate cross-specialty collaboration, drive innovative science, and maintain competitiveness for funding:</p> <ul style="list-style-type: none"> - Continue to develop and maintain a functional senior leadership group and committee structure. - Continue to foster a sense of accountability to the CMSR for collaboration and participation. - Develop strategic collaborations with investigators outside the CMSR. - Evolve the organization of the CMSR inventory. 	Year 3-5	Senior Executive Committee

Strategic Goal 2:		
Top-notch recruitment, training, and retention of diverse Investigators		
Strategies	Target Dates	Ownership
Continue to improve the quality of publications in higher impact journals: <ul style="list-style-type: none"> - Encourage utilization of the Mentoring Committee during journal selection. - Encourage utilization of existing CTSI resources (editor / proof reader). - Enforce CMSR Rigor and Reproducibility Best Practices for storage and availability of raw data used in publications 	Year 1-2	Mentoring Committee Rigor and Reproducibility Committee
Enhance national prominence by encouraging: <ul style="list-style-type: none"> - Focused effort to improve NIRA/Young Investigator abstract submissions. - Nominations to awards and leadership positions and fellowships of societies. - Sponsorship of events/sections. - Committee volunteering and elections. - Chairing workshops. 	Year 1	Mentoring Committee
Expand Social Media Presence: <ul style="list-style-type: none"> - Update lab profiles & photographs. - Explore Twitter/Social Media presence. - Promote CMSR strengths. 	Year 1-5	Training & Education Committee
Identify, prioritize and improve the success rate of recruitment: <ul style="list-style-type: none"> - Improve Diversity with focus on recruitment of individuals from populations underrepresented in science. - Establish competitive startup/recruitment packages. - Advertise and promote school districts, housing package, family friendly reputation. - Provide employment advice for spouses. - Provide financial/legal assistance with visa issues, where it applies. - Inform trainees and post-docs about new open positions. Establish formal relationships with URMIC's PREP, SURF, and STEP programs OR build our own pipeline for orthopaedic research training.	Year 1-2	Senior Executive Committee

<p>Establish CMSR Committees:</p> <ul style="list-style-type: none"> - Senior Executive Committee <ul style="list-style-type: none"> o Training and Education Committee <ul style="list-style-type: none"> ▪ Trainee Selection & Progress Committee ▪ Trainee Council (students & postdoctoral fellows) ▪ Training Curriculum Committee ▪ Seminars and Symposium Committee o Professional Development and Faculty Mentoring Committee o Clinician Engagement Committee o Core Users Committee o Advancement Committee o Diversity and Inclusion Committee o Rigor and Reproducibility Committee <ul style="list-style-type: none"> • Long term data storage <p>Practicum course on the fundamentals of laboratory research</p>	<p>Year 1</p> <p>D&I committee established Fall 2021; need to create committee mission statement</p>	<p>Senior Executive Committee</p>
<p>Upgrade working environment:</p> <ul style="list-style-type: none"> - Explore the feasibility of communal space for postdocs. <p>Break room/rest room facilities upgrade.</p>	<p>TBD</p>	<p>Senior Executive Committee</p>
<p>Identify new areas for CMSR research focus:</p> <ul style="list-style-type: none"> - Develop consensus on what new areas are best to pursue. <p>Link recruitments to competitiveness of CMSR for collaborative grants.</p>	<p>Year 3-5</p>	<p>Senior Executive Committee</p>
<p>Maintain an outstanding training environment in the CMSR:</p> <ul style="list-style-type: none"> - Support of and participation in T32 aims. - Develop rigor in scheduling and executing cost-effective Wednesday morning and Friday PI conferences with prompt regular attendance, interactive presentations, and broad participation. - Organize Annual Symposium and Neuman Seminars <p>Organize annual Rigor and Reproducibility Workshops on various musculoskeletal techniques (transcriptomics, flow cytometry, microscopy and imaging, immunoblotting, micro-CT, biomechanics)</p>	<p>Year 1-5</p>	<p>Training & Education Committee (Awad, Calvi, Loisele Trainee Council member)</p> <p>Rigor and Reproducibility Committee</p>

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Strategic Goal 3:		
Increase and maintain grant and endowment funding		
Strategies	Target Dates	Ownership
<p>Improve the efficacy and utilization of the PI and Wednesday morning meetings:</p> <ul style="list-style-type: none"> - Establish Friday Morning PI Meeting Committee. - Set clear expectations regarding participation in Wed/Friday meetings—Define policy on who presents and when. - Establish well-structured format for Wed and Fri meetings. - Improve the quality of participation; Improve in-meeting engagement - Increase attendance. - Assign faculty and students to provide feedback. - Establish thoughtful and supportive environment/process for providing feedback. 	Year 1	<p>Wed Meetings: Trainee Curriculum Committee</p> <p>Fri Meetings: Senior Executive Committee and Mentoring Committee</p>
<p>Collaborate with Advancement to build CMSR endowment:</p> <ul style="list-style-type: none"> - Develop best practice to create specific gifting opportunities, invite potential donors to the CMSR, engage a broad audience of potential donors, and maintain stewardship following gifts. - Develop a panel of people (including students) and presentations for Advancement to utilize. - Educational session regarding advancement process and endowments. - Develop “print-on-demand” sheets for: The CMSR (naming the entire CMSR), CMSR pilots (individual and open fund), Spatial Transcriptomics Endowment (naming the HBMI Core), Distinguished Professorship for the Chief of Sports Medicine and Director of CHAMPP), complete the Kates Professorship - Prepare for 2023 Wine Auction 	<p>Year 1-5 Done and ongoing with MSKI Council Done and ongoing Done and ongoing Commenced 2022 TBD</p>	Advancement Committee

Strategic Goal 4

Obtain and maintain state of the art cores and equipment

Strategies	Target Dates	Ownership
<p>Establish Committee for Core Users:</p> <ul style="list-style-type: none">- Define mandate of the committee and operational structure of the committee.- Recruit two trainees to participate in the committee.	<p>Year 1-5</p> <p>-Completed construction of a mission statement for the Core Users Committee. According to the stated mission, the committee will focus on providing user feedback and user ideas to the core director, core staff, and CMSR leadership rather than dictating core expectations and ensuring compliance.</p> <p>-The two original trainees in the committee have graduated, one has been replaced and we are seeking</p>	<p>Senior Executive Committee; Core Users Committee</p>

	another trainee to participate.	
<p>Send out a survey to the users of the two CMSR cores to identify aspects of the Cores that require attention and possibly change and to identify areas that should be expanded or contracted. The survey should:</p> <ul style="list-style-type: none"> - Include input from the technicians of the cores to best draft the survey. - Include questions requesting input on new methodologies to be developed, new instruments that should be considered for purchase. - Provide survey results once a year in a de-identified manner to the SEC with our recommendations. 	<p>Year 1 3 user surveys have been sent to the CMSR and results have been shared with CMSR leadership. -Among other successes, these surveys helped identified the need for a second slide scanner, which was successfully acquired.</p>	<p>Core Users Committee</p>
<p>Periodic usage review and fee structure review. Mechanism, and procedures, should be established to ensure that:</p> <ul style="list-style-type: none"> - Cores are cited in publications. - Costs for services provided by Cores are budgeted in new grants to help offset costs and maintain and develop new technologies. - Examples of innovation and advancement in science protocols are collected in a central folder to help PIs incorporate accurate and up to date description of them in new and renewing grants. - Ensuring uniform web presence of all current cores, including suggested acknowledgement statements and transparency of user fees to assist in budgeting for grant submissions. 	<p>Year 1 -Frequency of core citations in previous publications has been assessed. Users were generally unaware of when/how to acknowledge cores in their publications. -We drafted suggested acknowledgement statements for</p>	<p>Core Users Committee</p>

	<p>the cores, but these statements need to be approved by core directors and disseminated broadly.</p> <p>-Determination of user guidelines for budgeting for core facilities beyond standard user costs is ongoing.</p> <p>-Central folder with protocols has not been created. This is a 2022 action item for the committee.</p> <p>-Ensuring an appropriate web presence for the cores is ongoing</p>	
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<p>Facilitate status updates:</p> <ul style="list-style-type: none"> - Periodic meetings of SEC with Core directors to discuss ongoing issues and challenges. - Meet every three months to discuss compliance with Senior Leadership recommendations. - Re-do survey every year to ensure that Cores remain current and that clients are getting the services they want. - Ensure that each core presents updates periodically at Center meeting. 	<p>Year 1-5 Meetings with the SEC and survey updates have taken place periodically and will continue to take place moving forward. -Ensuring cores present at center meeting periodically is an action item for 2022.</p>	<p>Core Users Committee</p>
<p>Consider a usage tracking and billing software, like PPMs, that also has calendar capabilities.</p>	<p>Year 2-3 -This task is complete (all core facilities are now on the PPMS system).</p>	<p>Core Users Committee / CMSR Finance Manager</p>
<p>Obtain and maintain state of the art equipment in the CMSR:</p> <ul style="list-style-type: none"> - Maintain Core system and faculty engagement with Core system. - Designate specific teams to pursue grants for technology and equipment purchases and to disseminate information to the CMSR members about new technologies and related equipment to enable submission of Shared instrument Grant applications. - Arrange for vendors to visit and present new equipment options 	<p>Year 1-5 -An equipment “wish list” has been gathered, but the committee needs to follow up with PIs about pursuing instrumentation grants. -The committee recently identified a CMSR-wide</p>	<p>Core Users Committee</p>

	interest in pain assessment and is currently working to determine equipment needs and whether pursuing an instrumentation grant is warranted.	
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Strategic Goal 5		
Enhance diversity in orthopaedic research		
Strategies	Target Dates	Ownership
Establish a CMSR Diversity and Inclusion Committee: <ul style="list-style-type: none"> - Recruit members from CMSR staff, trainees, and faculty - Establish meeting schedule and ground rules - Define the vision and mission of the committee 	Year 1	Senior Executive Committee; D&I committee
Review CMSR practices and activities to ensure they promote diversity, are inclusive of all members, and align with URMIC's Equity and Anti-Racism Action Plan: <ul style="list-style-type: none"> - Identify and consult with other programs/departments that have successfully reviewed their practices from a D&I perspective - Develop a review process for CMSR practices and activities - Form a sub-committee to carry out the review process and share results with D&I committee members and SEC members 	Year 1 Year 1-2 Year 2-5	D&I committee; sub-committee for review process
Provide training and employment opportunities to individuals from groups historically excluded and currently underrepresented in STEM: <ul style="list-style-type: none"> - Promote collaboration between CMSR faculty, staff, and trainees with Champion Academy MedClub - Investigate and implement ways to support and promote the Perry Initiative and CHAMPP in collaboration with the Department of Orthopaedics - Identify those existing URMIC pipeline programs open to establishing a formal relationship with the CMSR and define the context in which the CMSR will contribute to the program <ul style="list-style-type: none"> • Potential programs include PREP, Summer Scholars, SURF, STEP, and RYSC - Establish an employment position within the CMSR for Rochester City School District students in partnership with URMIC's Teen Health and Success Partnerships 	Year 1 Year 1-2 Year 1-2 Year 2	D&I committee; MedClub mentors

program.		
<p>Foster an environment that continuously advances diversity and inclusion in musculoskeletal research:</p> <ul style="list-style-type: none"> - Nominate speakers for the Neuman Lecture series and Orthopaedic Grand Rounds who are from groups underrepresented in science and medicine or who have demonstrated excellence in promoting D&I efforts in STEM fields. - Create a mechanism for recognizing and celebrating the cultural identities of CMSR members. - Develop a page within the CMSR website devoted to D&I that includes D&I committee activities, community outreach activities, links to D&I resources, and a video highlighting the diversity within the CMSR. 	<p>Years 1-5</p> <p>Years 1-2</p> <p>Year 1 (by 12/2022)</p>	D&I committee
<p>Pursue intramural/extramural funding opportunities for D&I initiatives:</p> <ul style="list-style-type: none"> - Identify potential funding sources for D&I committee-sponsored activities. - Encourage submission of applications for diversity supplements to existing NIH grants. - Identify funding opportunities for non-citizen trainees 	Years 1-5	D&I committee