



SSR 2022 RESEARCH SEED GRANT PROGRAM

As a member of the SSR we invite you to participate in the Research Seed Grant Program. This annual grant is intended to stimulate research on certain topics in Musculoskeletal Radiology considered by the SSR Research and Executive Committees to be important, yet under-represented, in the literature.

Award: Up to \$4,000.00 to Principal Investigator

Eligibility: All SSR Members in good standing are eligible

DEADLINE FOR APPLICATION: FEBRUARY 21, 2022

The winner will be announced at the 2022 SSR Annual Meeting in March. Results will be presented by a podium presentation at the SSR 2023 Annual Meeting. Progress during the year will be reported in writing to the Research Committee, which will supply advice and mentorship as needed.

Application: Components must be submitted via the SSR website (<https://skeletalrad.org/ssr-2022-research-seed-grant>)

- 1) Specific aims (0.5 page)
- 2) Research plan (1.5 page maximum)
- 3) Brief biosketch of PI and collaborators; define roles in project
- 4) Summary statement of the clinical impact/need for this research

Suggested topics:

1. *Diversity, Equity, Inclusion*

Historically, certain groups (racial/ethnic/gender/social etc.) are underrepresented in imaging studies of common musculoskeletal disease. Certain musculoskeletal diseases are more prevalent in some of these specific groups. Diagnostic imaging and image guided interventions are key components in the diagnosis and treatment of many musculoskeletal diseases but may not be easily accessible to these groups. We need to improve our understanding of musculoskeletal disease imaging in these groups to improve diagnosis and better guide treatment. We need to identify underserved populations where musculoskeletal imaging services are not accessible to improve patient care.

2. *Multidisciplinary Studies*

Multidisciplinary collaborations are key in health care for understanding disease process, tailoring treatment to specific patients, or tackling clinical questions in general. Multidisciplinary research may include representatives from the basic research, anatomic and functional imaging and those providing patient care and follow up. We need to increase multidisciplinary research collaboration in imaging of

musculoskeletal disease and musculoskeletal image guided interventions in order to improve our understanding of musculoskeletal disease, and impact patient treatment and outcome. Of note- multidisciplinary projects submitted should be led by primary investigator (SSR member) radiologist.

3. *Imaging pain and functional status*

What is “normal” in young athletes? What is “normal” in the aging population? Sometimes MRI findings do not correlate to the suspected clinical concern, and sometimes a patient has a “normal” MRI, despite debilitating pain. We need to improve our correlation of imaging findings with symptomatology and/or functional status.

4. *Integration of Information from Multiple Imaging Techniques – “Multiparametric”*

Approach to Musculoskeletal Disease

This is most well-cited in the world of oncologic imaging, but could apply to such entities as cartilage imaging, rheumatology and musculoskeletal infection. This can be achieved using a combination of MR imaging sequences, or a combination of modalities and techniques.

5. *Demonstrating Added Value of Advanced imaging in Healthcare*

Some of our more advanced imaging techniques in musculoskeletal radiology (particularly MRI) are often classified as “expensive” or “costly.” However, we know that information added from new technologies can help guide appropriate medical decision-making, and may ultimately change patient management. We encourage projects that look at the cost-effectiveness of these advanced imaging techniques.

6. *Fast MR Imaging*

A “hot” topic in musculoskeletal imaging. Fast MRI is a complete MRI examination that can be performed at a faster rate than the typical MRI, but still produce an adequate number of sequences, without sacrificing image quality.

7. *Artificial Intelligence/Deep Learning/Convolutional Neural Networks*

Another “hot” topic in musculoskeletal imaging. Artificial intelligence has great potential to help radiologists more efficiently interpret images, provide computer-aided detection of diagnoses, and perform automated report drafting.

For research specific questions, please contact me at yoavm@umich.edu. For general questions please contact SSR staff at admin@skeletalrad.org.

Sincerely,

Yoav Morag, MD
SSR Research Committee Chair