



SCHOOL OF MEDICINE

Thurston Arthritis Research Center

Core Center for Clinical Research (CCCR)

Fall 2020

CCCR Catch Up

Funding provided by the NIH/NIAMS P30AR072580.

Welcome to UNC's CCCR!

Welcome to the CCCR, a NIH/NIAMS-funded center within the Thurston Arthritis Research Center (TARC)! The CCCR aims to further advance research in Rheumatic and Musculoskeletal Diseases (RMDs), particularly osteoarthritis (OA).

How can the CCCR help you?

The CCCR provides an innovative and multidisciplinary approach to RMD research. Our team of experts can help streamline your research efforts in providing one central resource to assist you with grant writing, conducting your project, analyzing your results, and advising on publications.

How is the CCCR organized?

The CCCR is composed of three main "Core" sections of expertise offering cross-disciplinary resources under the leadership of Director Leigh Callahan, PhD and Associate Director Richard Loeser, MD.

Administrative Core

Director: Leigh Callahan, PhD; **Associate Director:** Richard Loeser, MD

Provides leadership, oversight, coordination, evaluation and general administrative support for all CCCR activities.

Methodology Core

Co-Directors: Todd Schwartz, DrPH, and Kelli Allen, PhD

Provides a comprehensive and integrated set of RMD-focused services to optimize the quality, efficiency and innovation of the CCCR research community.

Phenotyping and Precision Medicine Resource Core

Director: Amanda Nelson, MD, MSCR

Provides services to add value to and optimize the design and implementation of clinical studies, as well as develop innovative strategies to maximize the use and success of clinical phenotyping and precision medicine in RMDs.

How has COVID-19 impacted the CCCR?

We have moved most of the CCCR activities to virtual, permitting the team to keep working as before. In fact, everything the CCCR does is now accessible to more individuals regardless of where they are located due most activities now being conducted online.

Upcoming Events

CCCR Events

- [UNC CCCR Speaker Series Presentation– Ted Mikuls \(10/14\)](#)
- [UNC CCCR Speaker Series Presentation– Jonathan Berg \(11/18\)](#)
- Collaborative CCCR Speaker Series Presentation (Nov/Dec)
- [UNC CCCR Speaker Series Presentation– Tuhina Neogi \(12/9\)](#)

Other Events

- [OA Action Alliance Lunch and Learn \(10/21\)](#)
- [TARC Research Day \(10/30\)](#)
- [TARC Research Seminar Series Presentation– Andrea Johnstone \(11/13\)](#)
- [OA Action Alliance Lunch and Learn \(11/18\)](#)
- [TARC Research Seminar Series Presentation– Lara Longobardi \(12/4\)](#)

Reminders

Utilizing CCCR Statisticians

The CCCR statisticians are here to assist with your statistical issues- planning, collection, analysis, interpretation, and dissemination.

Requesting CCCR Help/Services

We've released a new form to initiate the process of requesting information, data, and/or collaboration from UNC's CCCR! To submit the form, please click [here](#).

Joining the CCCR Listserv

Interested to getting the most up-to-date information about what is going on at the CCCR, including presentations, activities, conferences, etc.? Join the listserv by emailing us [here](#)!

Member Spotlight– Amanda Nelson, MD, MSCR, RhMSUS



Dr. Nelson is an Associate Professor of Medicine in the Division of Rheumatology, Allergy and Immunology at UNC-Chapel Hill. She joined the CCCR team in 2013 and was named the Director of the CCCR Phenotyping and Precision Medicine Resource Core this summer.

She was recently awarded a NIH R01 Grant to demonstrate the utility of ultrasound for osteoarthritis (OA) assessment with standardized scoring, in addition to her R21 on OA phenotyping.

Dr. Nelson has collaborated with Associate Resource Core Director Dr. J. S. Marron for over 5 years on various projects utilizing novel machine learning methods to better understand aspects of OA, including joint shape and high-risk phenotypes. She has also worked with Dr. Michael Kosorok for the past 2 years on precision medicine projects related to OA.

She mentors medical students and postdoctoral fellows in ultrasound as a tool for clinicians and clinical scientists to better understand OA diagnosis, development, and treatment.

As one of the country's leading musculoskeletal ultrasound researchers, Dr. Nelson is applying new and innovative ways to utilize ultrasound to better understand OA, how it progresses, and how to more effectively treat patients with the disease.

Recent Publications and Grants

CCCR members are regularly publishing new and exciting findings and are receiving funding for new projects to continue research in areas of great promise.

Recent Publications

- [Phenotypes of Osteoarthritis: current state and future implications](#)
 - Clinical and Experimental Rheumatology
 - Authors: Devaza LA, Nelson AE, Loeser RF
- [A Standardized, Pragmatic Approach to Knee Ultrasound for Clinical Research in Osteoarthritis: The Johnston County Osteoarthritis Project](#)
 - ACR Open Rheumatology
 - Authors: Nadiya V Yerich, Carolina Alvarez, Todd A Schwartz, Serena Savage-Guin, Jordan B Renner, Catherine J Bakewell, Minna J Kohler, Janice Lin, Jonathan Samuels, Amanda E Nelson
- [A precision medicine approach to determine optimal exercise and weight loss treatments for overweight and obese adults with knee osteoarthritis](#)
 - Arthritis Care and Research
 - Authors: Jiang X, Nelson AE, Cleveland RJ, Beavers D, Schwartz TA, Arbeeve L, Alvarez C, Callahan LF, Hackney B, Messier S, Loeser R, Kosorok MR

Recent Grants

- [Assessment of ultrasound features of knee osteoarthritis in a population-based community cohort](#) (NIH)
 - Principal Investigator: Amanda Nelson, MD, MSCR, RhMSUS
- [Applying Advanced Methodologies to Osteoarthritis \(OA\) Phenotyping](#) (NIAMS)
 - Principal Investigator: Amanda Nelson, MD, MSCR, RhMSUS
- [Using Machine Learning to ID Patient Groups Who May Benefit From “Traditional,” Vs. “Internet-based” Physical Therapy Programs](#) (NC TraCS)
 - Principal Investigator: Kelli Allen, PhD



Some of the CCCR family working from home. Sometimes, we are lucky enough to see special guests like children and family pets during our virtual meetings!

Presentation Series

You can now access presentations made by our presenters as part of the CCCR's three ongoing speaker series on YouTube and on our website.

[UNC CCCR 101 Introductory Series](#) (5-7 presentations/summer)

- Introduces students, clinicians, researchers, and everyone in between to various clinical topics in rheumatology as well as methods and methodological issues in clinical research.

[UNC CCCR Speaker Series](#) (Monthly)

- Promotes dynamic collaboration between clinicians, researchers, and students on various study topics, particularly methods and methodological issues in clinical research.

[Collaborative CCCR Speaker Series](#) (Quarterly)

- Highlight methodological work being conducted by researchers across eight of the NIAMS-funded P30 Core Centers for Clinical Research, with application to rheumatic and musculoskeletal conditions.

Do you have suggestions for future presentation topics? Please let us know by email or social media!

Fun(knee) Corner

WHAT REAL PEOPLE TAKE:

VACATIONS!



WHAT ACADEMICS TAKE:

"VACATIONS"



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