

Keynote Speaker



SCHOOL OF MEDICINE

Thurston Arthritis
Research Center

SIXTH ANNUAL RESEARCH DAY

Friday, October 13, 2023
8:00am-2:30pm

The UNC Friday Center
100 Friday Center Drive
Chapel Hill, NC 27517

Nigil Haroon, MD, PhD, DM, FRCPC, FRCP, MBA

*Clinician Scientist, University Health
Network*

*Senior Scientist, Schroeder Arthritis
Institute, Krembil Research Institute*

*Associate Professor of Medicine and
Rheumatology, University of Toronto*



Dr Nigil Haroon is a world-renowned rheumatologist and clinical immunologist located in Toronto, Canada. He is a Clinician Scientist at the University Health Network, the largest research hospital in Canada with over 17,000 active staff members (ranked top 5 in the world). He is an associate professor of medicine and rheumatology at the University of Toronto and a senior scientist at the Krembil Research Institute.

He is qualified in Internal Medicine, Clinical Immunology and Rheumatology and has a PhD in Functional Genomics and Immunology. He completed an MBA in Health and Life Sciences from the prestigious Rotman school of business.

His area of research includes predicting radiographic progression, identifying novel therapeutic targets and understanding the immunology and genetic basis of ankylosing spondylitis. He is well funded and has over 100 high impact publications in this area. Dr Haroon is a Vanier Scholar and has won several awards, including the Jane Bruckel Award of the Spondylitis Association of America.

TARC Research Day Program

7:30-8:00am Breakfast

Blueberry Hill Room & Atrium Center
***Morning food refreshments available until 10:30am**

8:00-8:20am Welcome Remarks

Sunflower room
Dr. Beth Jonas, Division Chief,
Rheumatology, Allergy & Immunology
Dr. Richard F. Loeser Jr., Director,
Thurston Arthritis Research Center

8:20-9:20am Short Talks

Sunflower Room
Moderated by:
Kelli Allen, PhD & Lara Longobardi, PhD

Underlined names indicate the speaker for each presentation

8:20 Nicole E. Kramer, Eliza Thulson, Philip Coryell, Susan D'Costa, Karen L. Mohlke, Brian O. Diekman, Richard F. Loeser, Douglas H. Phanstiel; **Response eQTLs in Primary Human Chondrocytes Identify Novel Putative Osteoarthritis Risk Genes.**

8:35 Astia Allenzara, Carolina Alvarez, Amanda Nelson, Galen Foulke. **Frequency of Atherosclerotic Cardiovascular Disease Following a Diagnosis of Idiopathic Inflammatory Myopathy: Data from a Large National Registry.**

8:50 Ankita Gupta, Uma Nair, Connor Thonen-Fleck, Santosh K. Mishra, B. Duncan X. Lascelles. **Differential Contribution of GFR α 3 in Naive and Osteoarthritis-Associated Pain States**

9:05 Chris Y. Lane, Lauren Mihalek, Kelli D. Allen, Beth L. Jonas, Patricia Katz, Louise M. Thoma. **Underserved by Rehabilitation: Characteristics among Adults with Rheumatoid Arthritis**

9:20-9:45am Poster Pitches – Session 1

Sunflower Room

(All posters listed here will be available for viewing in the following poster viewing session)

#1 Thuyvan Phan, Steven Takacs, and Rumey C. Ishizawar. **Implementation of the Clinical Disease Activity Index to Optimize Treat-to-Target Management of Rheumatoid Arthritis at the University of North Carolina Hospitals Rheumatology Specialty Clinic.**

#2 Philip Coryell, Kenneth Pearce, Paul Brian Hardy, Susan Chubinsky, Richard Loeser. **A Novel Small Molecule Screening Assay Toward Osteoarthritis Drug Discovery.**

#3 Ashley Buck, Caroline Lisee, Elizabeth Bjornsen, Todd Schwartz, Jeffrey Spang, Jason Franz, Troy Blackburn, Brian Pietrosimone. **Preoperative and Early Postoperative Habitual Walking Speeds Predict 6 Month Knee Osteoarthritis-Related Symptoms Following Anterior Cruciate Ligament Reconstruction.**

#4 Jacqueline Shine, Michaela E Copp, Hannon Lydia Brown, Brian O'Callaghan Diekman. **The Assessment of the Effects of Allosteric Modulation of SIRT6 Enzymatic Activity by in vivo Drug Delivery on DNA Damage Response and Overall Burden of Cellular Senescence in a Mouse Model of Cartilage Aging.**

#5 Eleanor Saunders, Diana Zychowski, Emily Owens Pickle, Carolina Alvarez, J. Vorobiov, S. Choudhary, M. S. Nolan, Amanda Nelson, Scott P. Commins. **Alpha-gal Seropositivity Among Screened Cohorts in NC and SC.**

9:45-10:45am Poster Viewing – Session A

Willow Lounge

- #6 Selima Siala, Nicolas Fiacco, Shruti Saxena Beem, Thad Benefield, Stephen DeCherney, Rumei Chang, Ishizawar, Yueh Z. Lee. ***Immune Checkpoint Inhibitor-Induced Hypophysitis: A Spectrum of MRI Changes.***
- #7 Liubov Arbeeva, Todd Schwartz, Richard Loeser, Leigh Callahan, Amanda Nelson, Carolina Alvarez, Rebecca Clevelan, Jeffrey Driban, Kathryn Barger, Kyla Shea, Yvonne Golightly, Louise Thoma, Kelli Allen. ***Development of a Composite Measure of Physical performance using Item Response Theory.***
- #8 Saira Z. Sheikh, Tessa Englund, Andrew Simkus, Nicole Wanty, Annie McNeill, Kristen Holtz, Tenesha Hood, Starla Blanks, Maria Allen, and Allen Anandarajah. ***A Novel, Community-Engaged Approach to Encourage Diverse Patient Participation in Lupus Clinical Trials.***
- #9 Christin Büttner, Caroline Lisee, Ashley Buck, Elizabeth Bjornsen, Jeffrey Spang, Troy Blackburn, Brian Pietrosimone. ***Early Sagittal Knee Biomechanics Differ in Individuals with and Without Knee-Related Symptoms 12 Months Following Anterior Cruciate Ligament Reconstruction.***
- #10 Katherine A. Yates, Carolina Alvarez, Todd A. Schwartz, Serena Savage-Guin, Jordan B. Renner, Catherine J. Bakewell, Minna J. Kohler, Janice Lin, Jonathan Samuels, Amanda E. Nelson. ***Diagnostic Accuracy of Ultrasound for Identification of Radiographic Knee OA: The Johnston County Osteoarthritis Project.***
- #11 Helen Willcockson, Huseyin Ozkan, Miguel Echanove Gonzalez de Anleo, Jonathan E. Frank, Hong Yuan, Morika D. Williams, Philip S. Low, and Lara Longobardi. ***Imaging Activated Macrophages Using a Folate Receptor-Targeted Near-Infrared Molecular Contrast Agent in Injured Knees.***
- #12 Katherine Collins, Caroline Lisee, Elizabeth Bjornsen, Cortney Armitano-Lago, Ashley Buck, Christin Büttner, Troy Blackburn, Brian Pietrosimone. ***Development of Dynamic and Sustained Limb Loading Profiles in the First 2 to 6 Months Following Anterior Cruciate Ligament Reconstruction.***
- #13 José Valdés-Fernández, Juan Antonio Romero-Torrecilla, Miguel Echanove-Gonzalez de Anleo, Tania López-Martínez, Purificación Ripalda-Cemboráin, Lara Longobardi, Felipe Prósper, Emma Muiños-López, Froilán Granero-Moltó. ***A Transcriptional Hub for Endochondral Ossification.***
- #14 Ashley Abbott and Abigail L Gilbert. ***ANA Educational Stewardship.***
- #15 Susan D’Costa, Seyoun Byun, Philip R. Coryell, Nicole E. Kramer, Brian O. Diekman, Richard F. Loeser, Douglas H. Phanstiel. ***Genome Wide Mapping of Chromatin Accessibility in Chondrocytes Identifies Putative Osteoarthritis Risk Variants.***
- #16 Mayuran Ravindran, J. Andrew Bird, Corinne A. Keet, Yamini V. Virkud, Lauren Herlihy, Michael D. Kulis, A. Wesley Burks, Edwin H. Kim. ***Effect of Pre-existing Atopic Disease on Pediatric Peanut Sublingual Immunotherapy (SLIT) Outcomes.***
- #17 Yinghui Wang, Yugen Zhang, Soorya Vasani, LaKeya C. Hardy, Evelyn Campbell, Robert Li, Joseph F. Urban, Jr., Cathryn R. Nagler, Onyinye I. Iweala. ***T-cell Specific Utx Deficiency Impairs Regulatory Immunity Associated with Intestinal Helminth Infection.***

10:45-11:00am Break

11:00am-12:00pm **Keynote Presentation**
Sunflower Room

Dr. Nigil Haroon

A 50-year Journey Beyond HLA-B27: Decoding the Next Frontier of Spondyloarthritis Pathogenesis

12:00-1:00pm **Lunch**
Trillium AB

1:10-1:40pm **Poster Pitches – Session 2**
Sunflower Room

(All posters listed here will be available for viewing in the following poster viewing session)

- #18 Garrett Sessions, Madeline Loops, Sam Wolff, Brian Diekman, Jeremy Purvis. **Tracing the Temporal Dynamics of Senescence Induction Under Differing Stress Conditions.**
- #19 Stephen Schworer, K Okuda, H Dang, MR Markovetz, T Kato, G Chen, RC Gilmore, M Chua, HT Bittar, BA Cody, JB Trudeau, WK O’Neal, SH Randell, SE Wenzel, RC Boucher. **Transcriptional Pathways in Small Airway Basal Cells Define Niches of Goblet Cell Metaplasia in Asthma.**
- #20 Alex Nilius 1, Derek Dewig 2, Christopher Johnston 3, Troy Blackburn. **Quadriceps Function and Morphology Contribute To Aberrant Downhill Gait Biomechanics In Individuals With ACL Reconstruction.**
- #21 Nonie S. Arora, Shannon L. Maaske, Sarah J. Free, Kim Boggess, Mildred Kwan. **Utilizing e-Consults to Delabel Penicillin Allergies in Pregnancy.**

- #22 Robert M. Immormino, Yugen Zhang, Camille M. Kapita, Kevin Thomas, Audrey Carson, Janelle Kesselring, Johanna Smeekens, Mike Kulis, Timothy P. Moran, Onyinye I. Iweala. **Deficiency of H3K27 Histone Demethylase Utx in T Cells Blunts Allergic Sensitization and Anaphylaxis to Peanut.**

- #23 Prarthana Jain, Rumey Ishizawar, Eli Tiller, John Doughton, Alfredo Rivadeneira. **Optimizing Rural Rheumatology Access: Collaborative Tele-Health Clinic Between University of North Carolina and Piedmont Health 1 Year Extension and Opportunities for Improvement.**

1:40-2:30pm **Poster Viewing – Session B**
Willow Lounge

- #24 Michelle Ramirez, Rebecca Fillipo, Kelli Allen, Amanda Nelson, Lesley Skalla, Connor Drake, Maggie Horn. **Using Implementation Strategies to Promote the Uptake of Osteoarthritis Practice Guidelines and Improve Patient Outcomes: A Systematic Review.**
- #25 Abigail L Gilbert, Ashley Abbott, Ty Chiaro. **Reducing Excess ANA Lab Orders and Rheumatology Referrals.**
- #26 Justin D. Dennis, Alex E. Nilius, Tom B. Birchmeier, Troy Blackburn. **Gait Biomechanics Influence on Vertical Ground Reaction Force Linear and Instantaneous Loading Rates.**
- #27 Helen Willcockson, Huseyin Ozkan, Jakub R. Prandota, Miguel Echanove Gonzalez de Anleo, Layla Z. Musawwir, Lola Bleu Hooper, Kihyun Kwon, Froilán Granero-Moltó, Felipe Prósper, Froilan Granero-Molto and Lara Longobardi. **Cartilage Specific Deletion of Chemokine Receptor-2 Ameliorates Osteocyte Formation and Pain During Aging Induced Osteoarthritis.**

- #28 L. Arbeevea, E. Borgert, T. Keefe, Anne-Christine Bay-Jensen, R. Loeser, Y.M. Golightly, J.S. Marron, A.E. Nelson. ***A Machine Learning Approach to Identify Patterns of Shared Variation Among Collagen Biomarkers and Clinical Features in a Community-Based Cohort.***
- #29 Savannah Muron, Jacqueline Shine, Seyoun Byun, Philip R. Coryell, Richard F. Loeser, Douglas H. Phanstiel, Brian O. Diekman. ***Using CRISPR/Cas9 to Knockout SNRNP70 in Primary Human Chondrocytes.***
- #30 Seyoun Byun, Nicole E. Kramer, Philip R. Coryell, Eliza Thulson, Susan D'Costa, Karen Mohlke, Jason Stein, Brian O. Diekman, Richard F. Loeser, Douglas H. Phanstiel. ***Splicing Response QTLs Identify Putative Osteoarthritis Risk Genes.***
- #31 Joel Robert Thompson. ***The Role of Kinesiophobia on Ankylosing Spondylitis Disease Activity, Exercise Habits, and Quality of Life.***
- #32 Connor Thonen-Fleck, Ankita Gupta, Uma Nair, Santosh K. Mishra, B. Duncan X. Lascelles. ***Osteoarthritis Associated Pain and Limb Asymmetry is Dependent on GFRa3.***
- #33 Rayan N. Kaakati, Dev Malhotra, Eric Waselewski, Kassie Weber, Liz Spranger, John Gosbee. ***No Tolerance for Food Intolerance.***
- #34 Jeremy Owens, Katie Mills, Jeffrey Barahona, Edgar Lobaton, Alper Bozkurt, Delesha Carpenter, Michelle Hernandez. ***A Pilot Study Testing Adherence to Multiple Digital Health Tools Among Adolescents with Asthma.***

***Thank you for attending
TARC Research Day 2023!***