

CURRICULUM VITAE
Shabana Amanda Ali
Assistant Scientist
Henry Ford Health System, Detroit, MI

CONTACT INFORMATION

Office

Henry Ford Health System
Department of Orthopaedic Surgery, Bone & Joint Center
Wayne State University Integrative Biosciences Center
6135 Woodward Avenue
Detroit, MI 48202
Phone: 313-874-8389
Email: sali14@hfhs.org

Languages

English, French

Research Interests

osteoarthritis, chondrosarcoma, genetics and genomics, microRNA-sequencing, chronic disease prevention and management, implementation research

Professional Memberships

2016, 2020 - present Osteoarthritis Research Society International (OARSI)
2021 - present Orthopaedic Research Society (ORS)

EDUCATION

Date	Degree	Department	Institution
2014	PhD	Institute of Medical Science	University of Toronto
2007	HBSc	Integrative Biology, Health Studies, Psychology; with Honours	University of Toronto

ACADEMIC EMPLOYMENT HISTORY

Date	Rank and Position	Department	Institution
2022-present	Assistant Professor	Physiology	Michigan State University
2020-present	Assistant Scientist	Bone & Joint Center	Henry Ford Health System
2020-present	Adjunct Assistant Professor	Center for Molecular Medicine & Genetics	Wayne State University
2018-2019	Science Writer	Office of Research Trainees	University Health Network
2017-2019	Postdoctoral Fellow	Genetics & Development	University Health Network
2015-2016	Postdoctoral Fellow	Faculty of Health Sciences	Western University
2015	Research Associate	Developmental & Stem Cell Biology	SickKids Hospital
2011-2013	Teaching Assistant	Faculty of Medicine	University of Toronto
2006-2007	Research Assistant	Biological Sciences	University of Toronto

SELECT FUNDING AWARDS

Research Funding

Elucidating the role of miR-126-3p in osteoarthritis

Arthritis National Research Foundation 06/01/22-05/31/23 Role: PI

MicroRNA-sequencing for discovery of novel biomarkers in early rheumatoid arthritis

Pfizer Global Medical Grants 06/01/22-05/31/23 Role: PI

Uncovering epigenetic regulators of genetic risk loci in osteoarthritis through deep phenotyping

University of Toronto McLaughlin Centre 05/01/22-04/30/23 Role: Co-PI (PI: O. Espin-Garcia)

Salary Awards

The Arthritis Society Postdoctoral Fellowship

Canada's leading charitable funder of arthritis research, The Arthritis Society
(Declined for 2020)

2018-2020

Krembil Postdoctoral Fellowship

Krembil Research Institute Postdoctoral Fellowship, University Health Network

2017

CMHR Postdoctoral Fellowship

Collaborative Training Program in Musculoskeletal Health Research, Western University

2016

Kirkley Postdoctoral Fellowship in Musculoskeletal Health Research and Innovation

Collaborative Training Program in Musculoskeletal Health Research, Western University

2015

Edward Dunlop Scholarship in Science and Technology

Ontario Graduate Scholarship in Science and Technology salary support award

2008-2011

Presentation Prizes

19th Annual Henry Ford Health System Research Symposium

Poster Presentation Prize

2022

The Canadian Arthritis Research Conference

Poster Presentation Prize awarded to supervised Postdoc Navdeep Kaur

2022

18th Annual Henry Ford Health System Research Symposium

Poster Presentation Prize awarded to supervised Postdoc Navdeep Kaur

2021

The Canadian Arthritis Research Conference

Poster Presentation Prize

2020

19th Annual Krembil Research Day, University Health Network

First place poster presentation prize

2019

The Arthritis Society Annual Trainee Workshop

Favourite Elevator Pitch Award (selected by peers)

2018

Consumers' Choice Elevator Pitch Award (selected by consumers)

2018

24th Annual Canadian Connective Tissue Conference Oral presentation prize	2018
17th Annual Krembil Research Day, University Health Network People's Choice award for elevator pitch oral presentation	2017
Canadian Bone and Joint Conference, Western University Oral presentation prize	2016

Research Awards

The Arthritis Society, Canada Mary Pack Volunteer Award of Excellence for Integrity	2018
The Arthritis Alliance of Canada Postdoctoral Fellow Research Award CIHR Institute of Musculoskeletal Health and Arthritis, Research Awards Program	2018

PUBLICATIONS

Peer-Reviewed Publications [™supervised trainee, *co-first author, †co- or senior author]

Updated list: <https://www.ncbi.nlm.nih.gov/myncbi/10U6m-kUz5tky/bibliography/public/>

Rocha, F.A.C., & Ali, S.A. **Soluble biomarkers in osteoarthritis in 2022: year in review.** *Osteoarthritis Cartilage*. 2022 Sep 27;. doi: 10.1016/j.joca.2022.09.005.

Ali, S.A., & Bowden, J.L. **Editorial: Implementation of physical, psychosocial, and mind-body approaches for the management of osteoarthritis.** *Front Rehabil Sci*. 2022;3:1023931. doi: 10.3389/fresc.2022.1023931.

Espin-Garcia, O.†, Baghel, M.™, Brar, N., Whittaker, J.L., & Ali, S.A.† **Can genetics guide exercise prescriptions in osteoarthritis?.** *Front Rehabil Sci*. 2022;3:930421. doi: 10.3389/fresc.2022.930421.

Tavallae, G., Lively, S., Rockel, J.S., Ali, S.A., Im, M., Sarda, C., Mitchell, G.M., Rossomacha, E., Nakamura, S., Potla, P., Gabrial, S., Matelski, J., Ratneswaran, A., Perry, K., Hinz, B., Gandhi, R., Jurisica, I., & Kapoor, M. **Contribution of microRNA-27b-3p to synovial fibrotic responses in knee osteoarthritis.** *Arthritis Rheumatol*. 2022 Jul 6;. doi: 10.1002/art.42285.

Ali, S.†, Espin-Garcia, O., Wong, A.K., Potla, P., Pastrello, C., McIntyre, M., Lively, S., Jurisica, I., Gandhi, R., & Kapoor, M.†. **Circulating microRNAs differentiate fast-progressing from slow-progressing and non-progressing knee osteoarthritis in the Osteoarthritis Initiative cohort.** *Ther Adv Musculoskelet Dis*. 2022;14:1759720X221082917. doi: 10.1177/1759720X221082917.

Ali, S.†, Pastrello, C., Kaur, N.™, Peffers, M.J., Ormseth, M.J., & Jurisica, I.†. (2021). **A Network Biology Approach to Understanding the Tissue-Specific Roles of Non-Coding RNAs in Arthritis.** *Front Endocrinol (Lausanne)*. 12:744747. doi: 10.3389/fendo.2021.744747.

Ali, S.†, Peffers, M.J., Ormseth, M.J., Jurisica, I., & Kapoor, M.†. (2021). **The non-coding RNA interactome in joint health and disease.** *Nat Rev Rheumatol*. Nov;17(11):692-705. doi: 10.1038/s41584-021-00687-y.

Wilson, T.^π, Kaur, N.^π, Davis, J., & Ali S.[†] (2021). **Tissue Collection and RNA Extraction from the Human Osteoarthritic Knee Joint.** *J Vis Exp.* Jul 22;(173). doi: 10.3791/62718.

Endisha, H., Datta, P., Sharma, A., Nakamura, S., Rossomacha, E., Younan, C., Ali, S., Tavallae, G., Lively, S., Potla, P., Shestopaloff, K., Rockel, J., Krawetz, R., Mahomed, N., Jurisica, I., Gandhi, R., & Kapoor, M. (2021). **MicroRNA-34a-5p Promotes Joint Destruction During Osteoarthritis.** *Arthritis Rheumatol.* Mar;73(3):426-439. doi: 10.1002/art.41552.

Mobasheri, A., Kapoor, M., Ali, S., Lang, A., & Madry, H. (2021). **The future of deep phenotyping in osteoarthritis: how can high throughput omics technologies advance our understanding of the cellular and molecular taxonomy of the disease?** *Osteoarthritis and Cartilage Open.* February. doi: <https://doi.org/10.1016/j.ocarto.2021.100144>.

Ali, S.^{*}, Lee, K.^{*π}, & MacDermid, J. (2021). **Applying the International Classification of Functioning, Disability and Health to understand osteoarthritis management in urban and rural community-dwelling seniors.** *Osteoarthritis and Cartilage Open.* January; 3(1). doi: <https://doi.org/10.1016/j.ocarto.2020.100132>.

Potla, P.^{*}, Ali, S.^{*}, & Kapoor, M. (2020). **A bioinformatics approach to microRNA-sequencing analysis.** *Osteoarthritis and Cartilage Open.* December; 3(1). doi: <https://doi.org/10.1016/j.ocarto.2020.100131>.

Ali, S., Gandhi, R., Potla, P., Keshavarzi, S., Espin-Garcia, O., Shestopaloff, K., Pastrello, C., Bethune-Waddell, D., Lively, S., Perruccio, A., Rampersaud, Y., Veillette, C., Rockel, J., Jurisica, I., Appleton, C., & Kapoor M. (2020). **Sequencing identifies a distinct signature of circulating microRNAs in early radiographic knee osteoarthritis.** *Osteoarthritis Cartilage.* Nov;28(11):1471-1481. doi: 10.1016/j.joca.2020.07.003.

Nakamura, A.^{*}, Ali, S.^{*}, & Kapoor, M. (2020). **Antisense oligonucleotide-based therapies for the treatment of osteoarthritis: Opportunities and roadblocks.** *Bone.* Sep;138:115461. doi: 10.1016/j.bone.2020.115461.

Ali, S.^{*}, Niu, B.^{*}, Cheah, K., & Alman, B. (2019). **Unique and overlapping GLI1 and GLI2 transcriptional targets in neoplastic chondrocytes.** *PLoS ONE*, 14(1): e0211333. <https://doi.org/10.1371/journal.pone.0211333>.

Nakamura, A., Rampersaud, R., Nakamura, S., Sharma, A., Zheng, F., Rossomacha, E., Ali, S., Krawetz, R., Haroon, N., Gandhi, R., Mahomed, N., Rockel, J., & Kapoor, M. (2019). **Inhibition of microRNA-181a-5p attenuates osteoarthritis in knee and facet joints.** *Ann Rheum Dis.* Jan;78(1):111-121. doi: 10.1136/annrheumdis-2018-213629.

Ali, S., Kokorelias, K., MacDermid, J., & Kloseck, M. (2018). **Education and social support as key factors in osteoarthritis management programs: a scoping review.** *Arthritis*, 2018:2496190. doi: 10.1155/2018/2496190.

Sathiyamoorthy, T. ^π, Ali, S., & Kloseck, M. (2018). **Cultural factors influencing osteoarthritis care in Asian communities: A review of the evidence.** *Journal of Community Health*, 43(4), 816-826. [Epub ahead of print Feb 2018]

Ali, S., Walsh, K.^π, & Kloseck, M. (2018). **Patient perspectives on improving osteoarthritis management in urban and rural communities.** *Journal of Pain Research*, 11, 417-425.

Ali, S., Klooseck, M., Lee, K., Walsh, K., MacDermid, J., & Fitzsimmons, D. (2018). **Evaluating and optimizing pragmatic trials in osteoarthritis research.** *Rheumatology*, 57(1), 59-63. [Epub ahead of print Mar 2017]

Ali, S. (2016). **Critical thinking in the information age: helping students find and evaluate scientific information.** *Teaching Innovation Projects Journal*, 6(1), 3.

Ali, S., Al-Jazrawe, M. Whetstone, H., Poon, R., Ma, H., Farr, S., Naples, M., Adeli, K., & Alman, B. (2016). **Hedgehog signaling regulates cholesterol homeostasis in osteoarthritic cartilage.** *Arthritis & Rheumatology*, 68(1), 127-37.

Campbell, V., Nadesan, P., Ali, S., Wang, C., Whetstone, H., Poon, R., Wei, Q., Keilty, J., Proctor, J., Wang, L., Apte, S., McGovern, K., Alman, B., & Wunder, J. (2014). **Hedgehog pathway inhibition in chondrosarcoma using the Smoothened inhibitor IPI-926 directly inhibits sarcoma cell growth.** *Molecular Cancer Therapeutics*, 13, 1259-1269.

Ho, L., Ali, S., Al-Jazrawe, M., Kandel, R., Wunder, J., & Alman, B. (2013). **Primary cilia attenuate hedgehog signaling in neoplastic chondrocytes.** *Oncogene*, 32, 5388-5396.

Ali, S. & Alman, B. (2012). **RNA extraction from human articular cartilage by chondrocyte isolation.** *Analytical Biochemistry*, 429, 39-41.

Lin, A., Seeto, B., Bartoszko, J., Khoury, M., Whetstone, H., Ho, L., Hsu, C., Ali, S., & Alman, B. (2009). **Modulating hedgehog signaling can attenuate the severity of osteoarthritis.** *Nature Medicine*, 15(12), 1421-1425.

Szczerba, M., Britto, D., Ali, S., Balkos, K., & Kronzucker, H. (2008). **NH₄⁺-stimulated and -inhibited components of K⁺ transport in rice (*Oryza sativa* L.).** *Journal of Experimental Botany*, 59, 3415-3423.

Conference Publications

Wilson, T., Kaur, N., Loveless, I., Datta, I., Potla, P., Baker, K., Davis, J. & Ali, S. (2022). Circulating miR-126-3p is elevated in late-stage radiographic knee osteoarthritis. **Osteoarthritis Research Society International (OARSI) World Congress.**

Ali, S., Loveless, I., Datta, I., & Potla, P. (2021). An improved method for microRNA-sequencing analysis identifies a signature of circulating microRNAs in late-stage radiographic knee osteoarthritis. **OARSI World Congress.**

Ali, S., Espin-Garcia, O., Potla, P., McIntyre, M., Lively, S., Gandhi R., Wong, A., & Kapoor, M. (2021). MiRNome sequencing identifies circulating microRNAs that are associated with disease progression in the Osteoarthritis Initiative cohort. **OARSI World Congress.**

Ali, S., Gandhi R., Potla, P., Keshavarzi, S., Espin-Garcia, O., Shestopaloff, K., Pastrello C., Bethune-Waddell, D., Lively, S., Perruccio, A., Rampersaud, R., Veillette, C., Rockel, J., Jurisica I., Appleton T., & Kapoor, M. (2020). miRNome sequencing identifies a unique profile of circulating microRNAs in early knee osteoarthritis. **American College of Rheumatology Convergence.**

Ali, S., Gandhi R., Potla, P., Keshavarzi, S., Espin-Garcia, O., Shestopaloff, K., Pastrello C., Bethune-Waddell, D., Lively, S., Perruccio, A., Rampersaud, R., Veillette, C., Rockel, J., Jurisica I., Appleton T., & Kapoor, M. (2020). Sequencing identifies a distinct signature of circulating microRNAs in early radiographic knee osteoarthritis. **OARSI World Congress.**

Ali, S., Gandhi R., Pastrello C., Potla P., Shestopaloff K., Lively S., Perry K., Jurisica I., Appleton T., & Kapoor, M. (2019). Circulating microRNA signatures identified in early versus late knee osteoarthritis. **OARSI World Congress.**

Ali, S., Datta, P., Kapoor, M., & Gandhi, R. (2019) Adiponectin is a potential mediator of synovial fibrosis from early to late knee osteoarthritis. **OARSI World Congress.**

Ali, S., Shestopaloff, K., Gandhi, R., Kapoor, M. (2018). MicroRNA discovery in knee osteoarthritis using next generation sequencing. **Annual Scientific Meeting of the Japan College of Rheumatology.**

Ali, S., Shestopaloff, K., Gandhi, R., Kapoor, M. (2018). Next generation sequencing discovers known and novel circulating microRNAs in knee osteoarthritis. **OARSI World Congress.**

Ali, S., Kapoor, M., Gandhi, R. (2018). Adiponectin is a potential mediator of fibrosis in knee osteoarthritis. **OARSI World Congress.**

Ali, S., Walsh, K., Kloseck, M. (2017). Engaging Urban and Rural Seniors as Research Partners to Improve Chronic Disease Management. **International Association of Gerontology and Geriatrics World Congress.**

Ali, S., Kokorelias, K., Kloseck, M. (2016). Community vs. self-management of osteoarthritis: what does the evidence tell us? **World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases.**

Ali, S., Kloseck, M., Crilly, R., Walsh, K. (2016). From osteoporosis to osteoarthritis: applying lessons learned for a new community management model for musculoskeletal diseases. **World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases.**

Ali, S., Lee, K., Walsh, K., Kloseck, M., Fitzsimmons, D., MacDermid, J. (2016). Evaluating and optimizing pragmatic trial design in osteoarthritis research. **OARSI World Congress.**

Ali, S., Whetstone, H., Alman, B. (2014). Hedgehog signaling regulates cholesterol homeostasis in osteoarthritis. **OARSI World Congress.**

Ali, S., Whetstone H., Alman B. (2013). Hedgehog signaling regulates expression of cholesterol biosynthetic genes in osteoarthritis. **The American Society for Bone and Mineral Research.**

Dissertation

Ali, S. Hedgehog signaling modulates cholesterol homeostasis in chondrocytes and in osteoarthritis. (2014). University of Toronto. Supervisor: Dr. Benjamin Alman.

Non-Peer-Reviewed Publications [Select articles to illustrate topics of interest.]

Ali, S. (2019). What is an Academic Footprint? *ORT Times*: <http://www.uhnresearch.ca/news/what-academic-footprint>

Ali, S. (2018). Fibrosis: Friend or Foe? *ORT Times*: <http://www.uhnresearch.ca/news/fibrosis-friend-or-foe-0>

Kokorelias, K., & Ali, S. (2017). Exploring the role of physical rehabilitation professionals in providing psychosocial care to improve patient recovery. *rehabINK*:

<https://rehabinkmag.com/2017/06/19/exploring-the-role-of-rehabilitation-professionals-in-providing-psychosocial-care-to-improve-patient-recovery/>

Ali, S., & Kokorelias, K. (2016). Changing perspectives on chronic disease: improving daily management. *The National Geriatrics Interest Group Publication*, 4(1), 25.

Ali, S. (2013). Social chameleon-ism: Survival of the fittest schmoozer. *IMS Magazine, Fall Issue*, 34-35. <http://www.imsmagazine.com/archives>.

Ali, S. (2012). Narrowing in on a career: a graduate student contemplates the business side of regenerative medicine. *Signals Blog*: <http://www.signalsblog.ca/narrowing-in-on-a-career-a-graduate-student-contemplates-the-business-side-of-regenerative-medicine/>

Ali, S. (2011). Interdisciplinary Collaboration in Critical Care. *IMS Magazine, Fall Issue*, 27-28. <http://www.imsmagazine.com/archives>.

PATENT

Kapoor, M., Ali, S., Gandhi, R., & Appleton, T. US Provisional Patent Application No. 63/033,463. Circulating MicroRNAs in Knee Osteoarthritis and Uses Thereof, filed on June 2, 2020.

MEDIA

“Knee Osteoarthritis: The Great Communicator”, *ORS Basic Science Tip of the Week*, December 2021 <https://www.ors.org/nelson-basic-science-tip/>

“A Flexible Mind to Solve Stiff Joints: Dr. Amanda Ali’s Journey in Osteoarthritis Research”, *IMS Magazine*, Spring/Summer 2021 <https://wp.me/pcTBKP-dU>

“How To Pitch To Your CEO” <tips on delivering an elevator pitch>, *Krembil Research Institute*, April 2019 <https://www.youtube.com/watch?v=C91KmKcW9G0>

“Profiles of Volunteering: Amanda - Special Events & Fundraising”, *The Arthritis Society*, August 2018 https://www.youtube.com/watch?v=DPHiK_72ORM#action=share

“She Rocks! Meet Dr. Shabana Amanda Ali – Postdoctoral Research Scientist In Search Of A Cure”, *Guyanese Girls Rock*, January 2018 <http://guyanesegirlsrock.com/she-rocks-meet-dr-shabana-amanda-ali-postdoctoral-research-scientist-in-search-of-a-cure/>

“A degenerative disease of the joints, osteoarthritis affects 50% of people over 65”, *CIHR*, November 2017 <http://cihr-irsc.gc.ca/e/50645.html#ali>

“Postdoctoral scholar looks to ease pain of millions”, *Western News*, July 2015 <http://news.westernu.ca/2015/07/postdoctoral-scholar-looks-to-ease-pain-of-millions/>

TEACHING

Lectures (audience composition)

Extract, Transform, and Load: microRNA-sequencing, from unstructured to structured (diploma course: DHDS110 Digital Health & Data Analytics), Michener Institute, September 28, 2021.

From Postdoc to Professor: Insights gained from my journey through academia (graduate/Postdoc), The Arthritis Program, University Health Network, November 26, 2019.

Delivering an Effective Elevator Pitch (undergraduate), BME499Y Applied Research in Biomedical Engineering, University of Toronto, October 21, 2019.

Trainee Workshop: Launching Academic Careers – A Postdoc Perspective (graduate/Postdoc), The Arthritis Society's 2018 Annual Trainee Workshop, November 21, 2018.

Everything You Want to Know About Elevator Pitches, Krembil Trainee Affairs Committee (graduate/Postdoc), Krembil Research Institute, University Health Network, May 7, 2018.

Transitions within academia: from science to society, Krembil Arthritis Trainee Research Day (graduate/Postdoc), Krembil Research Institute, University Health Network, July 21, 2017.

Achieving Success in Biomedical and Life Sciences Research: A Journey, not a Destination, Summer Student Research Opportunities Program (undergraduate), Institute of Medical Science, University of Toronto, June 21, 2017.

Evaluating and Optimizing Pragmatic Trials in Implementation Research with Older Adults with Chronic Morbidities, Canada Research Chair Seminar Series: Seminar 9 (webinar), McMaster University, October 19, 2016.

How to Read a Scientific Paper, Bone and Joint Summer Lunch Seminar (undergraduate), Collaborative Training Program in Musculoskeletal Health Research, Western University, June 9, 2015 and July 5, 2016.

Critical thinking in the information age: helping students find & evaluate scientific information, Future Professor Workshop Series (graduate/postdoctoral), Teaching Support Centre, Western University, November 4, 2015.

Bringing science to society: community management of chronic disease, Health & Aging Field Seminar (graduate), Health and Rehabilitation Graduate Program, Western University, September 30, 2015.

Course and Program Development

Henry Ford Health System Postdoc Seminar Series 2022
Creator and faculty advisor for monthly seminar series showcasing Postdoctoral research projects and featuring skill development presentations by faculty

MicroRNA Library Preparation, University Health Network 2019
Creator and instructor of next generation sequencing workshop for the Office of Research Trainees in collaboration with The Michener Institute

Graduate Education Council, Western University 2016
Postdoctoral Fellow representative on the Mentorship and Professional Development Sub-Committee and the Graduate Education Council

CMHR Training and Education Committee, Western University 2015 - 2016
Committee member of the Collaborative Training Program in Musculoskeletal Health Research (CMHR) that adjudicates trainee funding applications and sets educational program

Regenerative Medicine (MSC7000Y), Faculty of Medicine, University of Toronto 2012 - 2014
Committee member reviewing course administration (speakers, assignments, structure) and strategizing program sustainability, including federal (CIHR) funding and industry partner involvement

Translational Research Program, University of Toronto 2014
Committee member in developing the structure and curriculum for a new Master's degree program focused on using scientific discoveries to improve health, <http://trp.utoronto.ca/>

Institute of Medical Science, University of Toronto 2011-2014
Committee member in the Institute of Medical Science strategic planning departmental initiative to outline a 5-year plan to improve global visibility of the graduate program, <https://ims.utoronto.ca/>

Trainee Supervision

Postdoctoral

Baghel, Madhu; Henry Ford Health March 2022 - present
Kaur, Navdeep; Henry Ford Health February 2021 - March 2022

Medical

Mendez, Devin; Wayne State University July 2022 - present
Goocher, Brandon; Michigan State University February 2022 - present
Alaamiri, Morteda; University of Pikeville May 2021 - August 2021
Sharma, Varun; Queen's University May 2010 - August 2010

Graduate

CHL5207Y Practicum project co-supervisor, University of Toronto
- Abayasekara, Reshani, MSc program October 2022 - present
- Maraqa, Walid, PhD program October 2021 - September 2022
- Kim, Sumin, PhD program October 2020 - September 2021
Thesis examiner, University of Western Ontario
- Bobos, Pavlos, Master's defense November 2016
Committee member, University of Western Ontario
- Riaz, Farrukh, Master's program June 2016 - November 2016
Exam chair, University of Western Ontario
- Wilson, Carlee, Master's defense July 2016

College

McIntyre, Madison; Fleming College April - August 2019
Pritchett, Kathleen; Fleming College September 2017 - December 2017

Undergraduate

Al-Ani, Sama; Wayne State University May 2022 - present
Khalaff, Taqwa; Wayne State University January 2021 - present
Lee, Karen; University of Western Ontario October 2015 - July 2020
Sathiyamoorthy, Thrmiga; University of Western Ontario April 2016 - February 2018
Walsh, Kathleen; University of Western Ontario September 2015 - April 2016
Novosel, Sinja; University of Toronto May 2012 - August 2012

High school

To, Anthony; St. Elizabeth Catholic high school September 2011 - April 2012
Yu, Christina; St. Elizabeth Catholic high school September 2011 - April 2012

CONFERENCE PARTICIPATION

Podium Presentations [An asterisk (*) denotes supervised trainee.]

Canadian Arthritis Research Conference, *Virtual*, **A Multinomial Genome-Wide Association Study for Disease Progression of Knee Osteoarthritis – data from the Osteoarthritis Initiative**, February 7, 2022. *Sumin Kim

Canadian Connective Tissue Conference, *Virtual*, **MicroRNA-sequencing analysis identifies a signature of circulating microRNAs in late-stage radiographic knee osteoarthritis**, July 27, 2021. *Navdeep Kaur

European Orthopaedic Research Society, *Virtual*, **The importance of phenotyping in high-throughput omics studies of osteoarthritis**, September 17, 2021.

OARSI Live: Osteoarthritis Genetics and Epigenetics, *Virtual*, **Unique circulating microRNA profile identified in early radiographic knee osteoarthritis**, March 3, 2021.

Canadian Connective Tissue Conference, Canada, **Known and novel circulating microRNAs are uniquely expressed in knee osteoarthritis**, May 31, 2019.

Symposium on Advances in Joint Health and Disease, Arthritis Program UHN and Bone and Joint Institute UWO, Canada, **The big potential of small molecules in knee OA: next generation sequencing of circulating microRNAs reveals a unique signature**, May 6, 2019.

International Workshop on the Epigenetics of Osteoarthritis, Ireland, **MicroRNA discovery in early knee osteoarthritis using next generation sequencing**, November 5, 2018.

Arthritis Program Research Rounds, University Health Network, Canada, **Arthritis Program Sequencing Platform for Biomarker and Therapeutic Discovery**, October 19, 2018.

Krembil Seminar Series, Krembil Research Institute, Canada, **MicroRNA discovery in early and late knee osteoarthritis using next generation sequencing**, June 1, 2018.

Canadian Connective Tissue Conference, University of Toronto, Canada, **Next Generation Sequencing as a Tool for MicroRNA Discovery in Knee Osteoarthritis**, May 25, 2018.

IAGG World Congress of Gerontology and Geriatrics, USA, **Engaging Urban and Rural Seniors as Research Partners to Improve Chronic Disease Management**, July 24, 2017.

Canadian Connective Tissue Conference, McGill University, Canada, **Identifying Gli Transcriptional Targets In Chondrosarcoma Using Next Generation Sequencing**, May 19, 2017.

Krembil Research Day, University Health Network, Canada, **Biomarker discovery in osteoarthritis: identifying novel microRNAs**, May 10, 2017.

Canadian Geriatrics Society Annual Scientific Meeting, Canada, **Cultural Factors Influencing Osteoarthritis Care in Asian Communities: A Review of the Evidence**, April 2017, Sathiyamoorthy, T. *, Ali, S., & Kloseck, M.

Arthritis Program Research Rounds, University Health Network, Canada, **Osteoarthritis from science to society and back again: identifying novel circulating microRNAs**, February 15, 2017.

Talks on Fridays, Lawson Health Research Institute, Canada, **Why did the 'Hedgehog' cross the road? To study osteoarthritis from science to society**, April 29, 2016.

Canadian Bone and Joint Conference, Western University, Canada, **Improving the osteoarthritis continuum of care**, April 8, 2016.

Osteoarthritis Research Society International (OARSI), World Congress on Osteoarthritis, Netherlands, **Evaluating and optimizing pragmatic trial design in osteoarthritis research**, April 2, 2016.

Canadian Connective Tissue Conference, Western University, Canada, **Cholesterol homeostasis mediates Hedgehog signaling in chondrocytes and osteoarthritis**, June 9, 2014.

Institute of Medical Science: Scientific Day, University of Toronto, Canada, **Cholesterol homeostasis mediates Hedgehog signaling in chondrocytes and osteoarthritis**, May 22, 2014.

U of T Department of Surgery: Gallie-Bateman & McMurrich Research Day, Canada, **Cholesterol homeostasis mediates Hedgehog signaling in chondrocytes and osteoarthritis**, May 9, 2014.

Toronto Musculoskeletal Centre, University of Toronto, Canada, **What's new in chondrocyte biology? Hedgehog signaling regulates cholesterol biosynthesis – implications for osteoarthritis**, February 11, 2014.

Gordon Research Conference, Bones & Teeth, USA, **Hedgehog Signaling Regulates Cholesterol Homeostasis in Osteoarthritis**, January 28, 2014.

Toronto Musculoskeletal Centre, University of Toronto, Canada, **Greasy Joints: The Role of Hedgehog Signaling and Cholesterol Homeostasis in Osteoarthritis**, October 5, 2012.

Department of Biochemistry, University of Hong Kong, China, **Identifying Hedgehog Signaling Target Genes in Chondrocytes**, February 6, 2012.

Developmental & Stem Cell Biology, Hospital for Sick Children, Canada, **Greasy joints: Hedgehog and cholesterol in chondrocytes**, November 14, 2011.

Developmental & Stem Cell Biology, Hospital for Sick Children, Canada, **Identifying Hedgehog Signaling Target Genes in Osteoarthritis**, June 28, 2010.

Poster Presentations [An asterisk (*) denotes supervised trainee.]

Ali, S., Gandhi R., Pastrello C., Potla P., Shestopaloff K., Lively S., Perry K., Jurisica I., Appleton T., & Kapoor, M. Circulating microRNA signatures identified in early versus late knee osteoarthritis, **19th Krembil Research Day, Toronto, Canada**, May 2019.

Ali, S., Shestopaloff, K., Gandhi, R., Kapoor, M. MicroRNA discovery in early and late knee osteoarthritis using next generation sequencing, **The Arthritis Society 2018 Trainee Workshop, Toronto, Canada**, November 2018.

Ali, S., Shestopaloff, K., Gandhi, R., Kapoor, M. MicroRNA discovery in knee osteoarthritis using next generation sequencing, **Canadian Bone and Joint Conference, London, Canada**, May 2018.

Ali, S., Kapoor, M., & Gandhi, R., Investigating the Role of Adipokines in Synovium from Early and Late Knee Osteoarthritis, **Arthritis Advisory Board Meeting, Toronto, Canada**, September 2017.

Lee, K*, Ali, S., & MacDermid, J., Contextual Factors Impacting Osteoarthritis Management in Urban and Rural Community-Dwelling Seniors, **London Health Research Day, Canada**, March 2017.

Ali, S., Al-Jazrawe, M., Whetstone, H., & Alman, B., Cholesterol Homeostasis Mediates Hedgehog Signaling in Osteoarthritis, **Orthopaedic Research Society Annual Meeting, NV, USA**, March 2015.

Ali, S., Whetstone, H., & Alman, B., Hedgehog Signaling Regulates Expression of Cholesterol Biosynthetic Genes in Osteoarthritis, **Gordon Research Conference: Tissue Repair & Regeneration, NH, USA**, June 2013.

Ali, S., Lin, A., Whetstone, H., Wei, Q., & Alman, B., Identifying Hedgehog Signaling Target Genes in Osteoarthritis using an Improved Method for RNA Extraction from Human Cartilage, **U of T Department of Surgery: Gallie-Bateman & McMurrich Research Day, Canada**, May 2011, May 2012, May 2013.

Ali, S., Lin, A., Whetstone, H., Wei, Q., & Alman, B., Identifying Hedgehog Signaling Target Genes in Osteoarthritis using an Improved Method for RNA Extraction from Human Cartilage, **U of T Institute of Medical Science: Scientific Day, Canada**, May 2011, May 2012.

Ali, S., Lin, A., Whetstone, H., Wei, Q., & Alman, B., Identifying Hedgehog Signaling Target Genes in Osteoarthritis using an Improved Method for RNA Extraction from Human Cartilage, **Gordon Research Conference: Cartilage Biology & Pathology, CA, USA**, March 2011.

Ali, S., Lin, A., Whetstone, H., Ho, L., & Alman, B., Identifying Hedgehog Signaling Target Genes in Osteoarthritis, **U of T Institute of Medical Science: Scientific Day, Canada**, May 2009, May 2010.

Ali, S., Lin, A., Whetstone, H., Ho, L., & Alman, B., Identifying Hedgehog Signaling Target Genes in Osteoarthritis, **U of T Collaborative Program in Developmental Bio., Canada**, May 2009, May 2010.

Ali, S., Lin, A., Whetstone, H., Ho, L., & Alman, B., Identifying Hedgehog Signaling Target Genes in Osteoarthritis, **U of T Department of Surgery: Gallie-Bateman & McMurrich Research Day, Canada**, May 2009, May 2010.

Ali, S., Lin, A., Whetstone, H., Ho, L., & Alman, B., Identifying Hedgehog Signaling Target Genes in Osteoarthritis, **GreatLakes Mammalian Development Meeting, Canada**, March 2009, March 2010.

Ali, S., Lin, A., Whetstone, H., Ho, L., & Alman, B., Identifying Hedgehog Signaling Target Genes in Osteoarthritis, **Gordon Research Conference: Cartilage Biology & Pathology, Les Diablerets, Switzerland**, June 2009.

Ali, S., Lin, A., Whetstone, H., Ho, L., & Alman, B., Identifying Hedgehog Signaling Target Genes in Osteoarthritis, **SickKids Research Institute Retreat, Canada**, November 2008, November 2009.

Organizing Committee

Henry Ford Health System Annual Research Symposium
Research Symposium Co-Chair
Member of the Planning Committee

June 2022 - present
Oct 2021 - May 2022

The Canadian Arthritis Research Conference, Victoria, BC
Member of the Planning Committee

February 2020

24th Annual Canadian Connective Tissue Conference, Toronto, ON

Member of the Scientific Committee and Host of the Gala Dinner May 2018

Moderator

The Canadian Arthritis Research Conference, *virtual*
Session co-moderator February 2021

International Workshop on the Epigenetics of Osteoarthritis, Dublin, Ireland
Session moderator November 2018

Abstract Reviewer

Osteoarthritis Research Society International annual congress October 2022
Orthopaedic Research Society annual meeting Sept 2021, 2022
Henry Ford Health Annual Research Symposium March 2022
Western Student Research Conference, London, ON January 2016
Society for Teaching and Learning in Higher Education Conference, London, ON January 2016

Judge

Annual Scientific Day, Institute of Medical Science, U of T, Toronto, ON
Invited to judge presentations for Alan Wu Poster Competition May 2019

U of T Department of Surgery: Gallie-Bateman & McMurrich Research Day
Invited to judge e-poster presentations, Toronto, ON April 2017, May 2019

Summer Student Research Day, Krembil Research Institute, Toronto, ON
Invited to judge oral presentations August 2018, 2019

Krembil Research Day, University Health Network, Toronto, ON
Invited to judge poster presentations May 2018

Canadian Bone and Joint Conference, London, ON
Invited to judge poster presentations April 2016, 2018

Health & Rehabilitation Sciences 2016 Conference, London, ON
Invited to judge oral presentations February 2016

Bone and Joint Annual Retreat, London, ON
Invited to judge poster presentations May 2015

Training Program in Regenerative Medicine Annual Symposium, Toronto, ON
Invited to judge oral presentations April 2011-2013

INVITED LECTURES

'The big deal about small RNAs in osteoarthritis', University of California Davis, USA, October 12, 2022.

'Introduction to Arthritis', The Arthritis Society, Canada

- Fort Garry Women's Resource Centre, February 23, 2022
- Association of Iroquois and Allied Indians, October 20, 2021
- Chomedey Seniors Club, March 4, 2021

'A translational approach to precision medicine for osteoarthritis', Department of Medical Genetics, University of Alberta, September 23, 2020.

'The translational potential of miRNome sequencing in osteoarthritis', Center for Molecular Medicine & Genetics, Wayne State University, June 18, 2020.

'miRNome sequencing identifies a unique profile of circulating microRNAs in early knee osteoarthritis', Genomics@Wayne Seminar Series, Wayne State University, April 23, 2020.

'A multidisciplinary approach to precision medicine for osteoarthritis', Bone & Joint Center, Henry Ford Health System, June 28, 2019.

RESEARCH COLLABORATIONS AND COMMITTEES

National and International Research Collaborations

Dr. Johanne Martel-Pelletier, University of Montreal, Canada Predicting structural progression of osteoarthritis	November 2020 - present
Dr. Osvaldo Espin-Garcia, University of Toronto, Canada GWAS analysis in osteoarthritis	September 2020 - present
Dr. Kathryn Cheah, Hong Kong University, Hong Kong Genomic analyses of human chondrosarcoma	January 2012 - 2019
Dr. V. A. Shiva Ayyadurai, CytoSolve Inc, USA Curating <i>in silico</i> biological and clinical data for knee osteoarthritis	March 2017 - 2018
Dr. Deborah Fitzsimmons, The University of Sheffield, United Kingdom Conceptualizing pragmatic trial theory and methodology	June 2015 - 2016
Dr. Peter Kannu, Hospital for Sick Children, Toronto, Canada Recruited to perform surgical induction of osteoarthritis in mice, and subsequent analysis	July 2014 - 2015
Karen McGovern, Infinity Pharmaceuticals, Boston, USA Investigating the effects of a novel Hedgehog drug in human chondrosarcoma	February 2011 - 2014
Dr. Benjamin Neel, University Health Network, Toronto, Canada Consulted to design study investigating the effects of an antibody in osteoarthritis treatment	February 2013 - 2014
Dr. Rajiv Gandhi, Toronto Western Hospital, Toronto, Canada Consulted for establishment of best practices (RNA extraction) for Knee Osteoarthritis BioBank	September - November 2012

Advisory Boards

Research Committee Henry Ford Health System, USA	January 2021 - present
Bone & Joint Institute Board of Governors Western University, Canada	April 2016 - November 2016
Toronto Musculoskeletal Centre Advisory Committee University of Toronto, Canada	December 2011 - 2013

Grant Review

National Institutes of Health, USA Reviewer, Skeletal Biology Development and Disease study section	October 2022
Department of Defense, USA Scientist Reviewer, Clinical Trial – Arthritis Program	October 2022
Scientist Reviewer, Rare Cancer Research Program	February 2021
Scientist Reviewer, Concept Awards (Sarcoma)	October 2021
The Arthritis Society, Canada Scientist Reviewer, PhD and Postdoctoral funding applications	July 2022
Scientist Reviewer, PhD and Postdoctoral funding applications	July 2021
Lay Reviewer, UCBeyond Scholarship	July 2016 - 2020
Scientific Officer, PhD and Postdoctoral funding applications	July 2020

PROFESSIONAL DEVELOPMENT

Editorial Experience

Review Editor, <i>Frontiers in Rehabilitation Sciences</i> Section: Translational Research in Rehabilitation	Nov 2020 - present
Journal Peer-Review Previously reviewed manuscripts for <i>BMJ, Scientific Reports, Osteoarthritis and Cartilage, Osteoarthritis and Cartilage Open, Experimental Cell Research, Journal of Hand Therapy, Arthritis Care and Research, BMC Health Services Research, Human Molecular Genetics, Journal of Orthopaedic Research, Orthopedic Research and Reviews, The Veterinary Journal, International Journal of Nursing Studies, Connective Tissue Research, Journal of Pain Research, International Journal of Behavioral Medicine, Journal of Inflammation Research, Bone and Joint Research, Diagnostics, Genes</i>	June 2011 - present
Co-Guest Associate Editor, <i>Frontiers in Rehabilitation Sciences</i> Topic: Implementation of Physical, Psychosocial, and Mind-body Approaches for the Management of Osteoarthritis	Jan 2021 - Aug 2022
Co-Guest Editor, <i>Osteoarthritis and Cartilage Open</i> Topic: Advances in omics technologies for deep phenotyping in osteoarthritis	July 2020 - 2021
Journalist and Board Member, <i>The Training Post</i> A monthly newsletter for trainees at The Hospital for Sick Children Research Institute	June 2012 - 2014
Journalist and Assistant Managing Editor, <i>IMS Magazine</i> A quarterly publication for the Institute of Medical Science, communicating health science research with a strong knowledge translation mandate	January 2011 - 2014
Editor-in-Chief, University of Toronto chapter, <i>Inquire Publication</i> An interuniversity (Queen's University, McMaster University, University of Toronto) social activism publication	April 2012 - 2013

Science Policy & Project Management Workshops

Translational Research Workshop, U of T Department of Surgery, Toronto, ON	April 2019
Decoding the Federal Budget for Canadian R&D and Innovation, Toronto, ON	April 2019

Integrating Sex and Gender in Health Research, Toronto, ON	March 2017
Masterclass on the Conduct and Use of Patient-Oriented Research, Toronto, ON	April 2016
Foundations of Project Management I, Mitacs Step Program, Toronto, ON	February 2016
e-Health Annual Conference, Metro Toronto Convention Centre, Toronto, ON	May 2015
5th Canadian Science Policy Conference, Allstream Centre, Toronto, ON	November 2013
Science Policy 101 Workshop, University of Ottawa, Ottawa, ON	October 2013

Teaching Certificates & Workshops

Western Certificate in University Teaching and Learning, Western University	February 2016
Advanced Teaching Program, Western University	June 2015
The Teaching Mentor Program, Western University	December 2015
Teaching Assistants' Training Program (TATP), University of Toronto	January 2011
Teaching Conference: The New Science of Learning, Western University	September 2015
The Western Conference on Science Education, Western University	July 2015
Future Professor Workshop Series, Western University	July 2015
- Designing Your Own Course: Components of a Great Syllabus	
- Using Social Media Effectively in the University Classroom	

Writing Workshops

Life Stories, Instructor: Beth Kaplan, U of T School of Continuing Studies	October 2016
Scientific Writing Workshop, Instructor: Joan Forder	February 2013
English Language & Writing Support courses, U of T School of Graduate Studies	
- Becoming a Better Editor of Your Own Work, Instructor: Jane Freeman	March 2013
- Introduction to Science Journalism, Instructor: Ivan Semeniuk	December 2012

EXTRA-CURRICULAR ACTIVITIES

Select Trainee Associations/Events

Postdoc Appreciation Week Organizing Committee, University Health Network	
Organizing networking events for careers in academia and industry	June 2018 - September 2019
Trainee Affairs Committee (TAC), Krembil Research Institute	
Organizing workshops for trainee development (e.g. science writing)	September 2017 - 2019
Postdoctoral Association at Western (PAW), Western University	
Vice-President Communications, organizing social events & social media	June - November 2016
Member-at-large attending monthly council meetings	September 2015 - May 2016
Institute of Medical Science Students' Association (IMSSA), University of Toronto	
<i>IMS Magazine</i> Subcommittee, IMS 50th Anniversary Planning Committee	October 2017 - 2018
<i>IMS Magazine</i> Representative	September 2011 - 2013
Volunteer: TedMed Day, Faculty of Medicine U of T	April 2013
Organizing Chair: Careers in Scientific Journalism seminar	June 2012

Community Engagement

The Arthritis Society, Canada	April 2015 - present
Volunteer participating in community fundraising, education, and awareness events in London, Ontario; Toronto, Ontario; and virtually.	

Mentorship

Canadian Arthritis Trainee Association (CATA) Career Transitions Panel	September 2022
Toronto Health Sciences Postdoc Career and Networking Symposium	June 2022
Girls E-Mentorship (GEM) Alumnae Network Workforce Panel	May 2022
UHN Postdoc Appreciation Week, 'Becoming a PI' Panel	September 2020