The Journal of the Canadian Rheumatology Association



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CIORA

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AI Overload

By Philip A. Baer, MDCM, FRCPC, FACR

A rtificial intelligence (AI) and the associated AI-related hype seem to be everywhere. Are the robots taking over? Will they outsmart us? Will knowledge workers' jobs, including those of rheumatologists and other physicians, be threatened?

In 2016, Canadian machine-learning pioneer Geoffrey Hinton spoke at a machine-learning conference in Toronto and said: "I think if you work as a radiologist, you are like the coyote that's already over the edge of the cliff but hasn't yet looked down. People should stop training radiologists now. It's just completely obvious within five years deep learning is going to do better than radiologists.... It might be 10 years, but we've got plenty of radiologists already."¹

Rheumatologists were not mentioned, and as of 2023 Hinton appears to be incorrect about radiologists, but what are the implications for us?

Evidence-based medicine is one of our cornerstones, so let's examine the evidence. ChatGPT and other large language models (LLMs) seem to have impressive capabilities. They can write code, create reports and letters, and apparently can pass some medical licensing exams. However, an AI candidate failed a mock radiology fellowship examination recently, struggling the most with musculoskeletal imaging.² As well, AI chatbots cannot always be trusted, as they "hallucinate" by inventing "facts" and references which are false. They may violate copyrights and privacy and plagiarize the material they review. Ethical AI is not the current reality. The current iteration of ChatGPT was apparently trained on what it could find online up to 2021, so newer research will not be incorporated into its work product.

Medical journal editors are concerned enough to limit the use of AI in producing papers and require the disclosure of AI assistance in generating submissions. Can an AI program be listed as the author of a medical paper? Currently, the answer is no.³ Yet there are already reports of a corporate board including an AI program named VI-TAL as a board member.⁴ Advantages: perfect attendance, reliable completion of pre-reading, and no costs to feed it.

I reviewed studies related to rheumatology uses of AI presented at EULAR 2023 for a recent presentation. The field is burgeoning, with a literature search indicating an annual increase in papers citing AI of between 20 and 48 percent (Abstract AB1667). Multiple studies support the usefulness of AI in reporting of imaging studies, using convolutional neural networks (CNNs) developed with training sets followed by testing on validation sets. The CNNs did as well as expert readers in multiple studies: hand/wrist X-rays looking at Sharpe/van der Heijde scores in rheumatoid arthritis (RA) (POS0160), RAMRIS scoring of hand MRIs in RA (OP0002) and scoring of X-rays (POS0896) and MRIs (AB1013) for sacroiliitis in axial spondyloarthropathy. LLMs using natural language processing (NLP) could review patient data in EMRs and EHRs and find previously unsuspected cases of ANCA-associated vasculitis (POS1179). Models could also be constructed in RA to evaluate baseline factors and predict outcomes one year into the future, potentially selecting some patients for more intensive follow-up and treatment if the prediction was for high disease activity in the future (POS0320).

Meanwhile, what happened in radiology since Hinton pronounced it was doomed in 2016? Well, there are now 200 FDA-approved radiology AI algorithms ready for use, according to the American College of Radiology's AI Central site. At the same time, there is a global radiologist shortage, driven in part by overwork. "The amount of imaging is going up 5 percent per year, and we're not training 5 percent more radiologists per year," according to Jordan Perchik, MD, a fellow in the Department of Radiology at the UAB Heersink School of Medicine. "The most commonly used AI tools," Perchik said, "are ones that speed up scans, paradoxically increasing the workload for radiologists."⁵

Hinton has also been rebutted by Stanford radiologist and AI pioneer Curtis Langlotz, MD, PhD. He said, "AI won't replace radiologists, but radiologists who use AI will replace those who don't."⁶ Maybe that is what rheumatologists can glean from all the AI hype. Our brand of longitudinal holistic care will never be obsolete, but we may have to integrate AI tools to cope with the increasingly severe mismatch between supply and demand we are faced with.

Now, please excuse me while I follow the advice of the legacy AI troika of Alexa, Siri and Cortana and invest all my spare cash in Amazon, Apple and Microsoft.

Philip A. Baer, MDCM, FRCPC, FACR Editor-in-chief, CRAJ Scarborough, Ontario

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WHAT'S THE CRA DOING FOR YOU?

Project Athena Update: CRA Focus Group Findings



ASSOCIATION

DE RHUMATOLOGIE

The Canadian Rheumatology Association (CRA) in consultation with the Board of Directors identified practice and electronic medical records (EMR) inefficiency as a top priority for the CRA to address, based on a series of member consultations in 2022. Work under this stream will be dubbed Project Athena going forward.

To ensure a full understanding of the needs of members, CRA staff and consultant Dr. Karim Keshavjee held a focus group session with members to receive input on key streams of the project and identify best practices.

Based on the successful focus group with rheumatologists about the problems and potential solutions, the key findings are as follows:

- A. Several sites are very efficient and willing to share their lessons and practices. We are following up with the sites to start collecting and documenting best practices.
- **B**. Biologic reimbursement forms are particularly difficult for rheumatologists to fill out. Upon further investigation, it appears that several issues are not amenable to technological solutions, including requests for information that is not routinely added to EMRs and requests for information that rheumatologists feel is not germane to the patient's treatment plan. We will be actively seeking non-technological solutions for these issues.

- C. Documenting the patient's history is very time-consuming and family doctors already do this. We will investigate opportunities for data transfer.
- **D.** Getting new colleagues trained and up to speed on the use of the EMR is challenging. The development of simple videos to help with onboarding could be useful.
- E. There are several operational efficiency issues that practices face for which good technological solutions exist, such as collecting patient-reported experience and outcome measures and dealing with no-shows.

The CRA's Quality Care Committee will provide oversight for the EMR Optimization and the Quality Improvement workstreams of Project Athena. The oversight subcommittees will meet once a month to review materials submitted by the Project Athena consultants.

The CRA is pleased to answer any questions that members may have about the work of Project Athena. If you have any questions or would like to discuss this project, please contact CEO Dr. Ahmad Zbib at *azbib@rheum.ca*.

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Going Beyond Pain: Expanding the JIA Option Map

By Karine Toupin-April, PhD; Elizabeth Stringer, MD, MSc, FRCPC; Laurie Proulx, patient author, Jennifer N. Stinson, RN-EC, PhD, CPNP, FAAN, and the JIA Option Map Group, part of the Choice Research Lab

About the Study

Young people with juvenile idiopathic arthritis (YPJIA) experience physical and psychological symptoms that negatively impact a wide range of functional activities. YPJIA and their families need more information and decision support to help manage these symptoms. Our team previously developed the JIA Option Map, a web-based patient decision aid for JIA pain management. Our current work aims to expand the JIA Option Map to include interventions for other relevant symptoms and tips to participate fully in activities. With funding from the Canadian Initiative for Outcomes in Rheumatology cAre (CIORA), we sought to identify which symptoms and aspects of daily function should be added to the JIA Option Map.

Our team comprises 35 members, and includes patient partners, health care providers (HCPs), researchers and policy makers. HCPs include pediatric rheumatologists, nurses, occupational therapists, physical therapists, psychologists, social workers and dietitians. We held seven virtual research team meetings to identify and discuss the symptoms and functional activities that were relevant to YPJIA. Subsequently, we distributed an online survey to the research group and conducted two online consensus meetings to agree on the most important symptoms and functional activities to add to the JIA Option Map. Patient engagement is central to this project and is described at the following link: *https://www.ktpathways.ca/system/files/resources/2022-12/2022* -*Vol-6_IKTRN-casebook.pdf*

Which Symptoms Are the Most Important to Add to the JIA Option Map?

Seventeen individuals completed the survey, including four patient partners, 11 HCPs from four different professions, and seven researchers. Fatigue, stress, anxiety, joint stiffness, poor sleep, feeling down and joint swelling were rated as the most relevant. School and leisure were the highest rated functional activities, followed by activities of daily living and work. Eighteen people participated in the consensus meetings, including three patient partners and clinicians from four different professions. Both meetings determined that fatigue, stress/anxiety, and joint stiffness were the most important symptoms to add. All functional activities were considered important to add, with school and daily living activities rated as the most important.

Implications

Future work will help ensure that the expanded JIA Option Map integrates evidence-based information to address these symptoms and their impact on functional activities. Patient partners and clinicians are essential to help us ensure that this app will be easy to use and implement in clinical practice, to help young people and their families discuss treatment options and make the best decisions to manage their own health.

Co-authors:

We would like to acknowledge the co-authors of this work who are members of the JIA Option Map Group:

Natasha Trehan, Emily Sirotich, Naomi Abrahams, Alex Sirois, Adam M. Huber, Ciarán M. Duffy, Esi M. Morgan, Janice S. Cohen, Isabelle Gaboury, Linda C. Li, Nilay Arman, Mohreet Badal, Kathryn Birnie, Andrea Boyd, Paula Branco, Yvonne Brandelli, Jeannette Cappon, Sabrina Cavallo, Mark Connelly, Natoshia Cunningham, Simon Décary, Daniela Ghio, Michele Gibbon, Sabrina Gmuca. Victoria Harbottle, Andrea Knight, Rebecca Lee, Nadia Luca, Melissa Mannion, Rose Martini, Gail Paterson, Aparna Raguraman, Mahta Rafieinia, Tamar Rubinstein, Meghan Ryan, Peter Tugwell, Jennifer E Weiss

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Welcome to the following new CRA members:

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Rising Star: Dr. Hugues Allard-Chamard

Powerful Connections:

The Immune System and Rheumatology at the Heart of My Career

Pasteur once said: "Chance favours only the prepared mind." I say: "Chance favours well-mentored minds." Indeed, my path to rheumatology is the result of many unforeseen events, but one thing remains a constant: I have been guided by exceptional people.

Being a bit hesitant by nature, it took some time for me to enter the world of rheumatology. Instead, I was thinking of becoming a pharmacological researcher and fully delving into my passion for orchids and corals. It was from this primary perspective that I encountered science, immunology and medicine. I owe Dr. Artur Fernandes my original impetus to go into medicine. It was the year 2000, and everyone was watching out for the infamous Y2K bug, but Dr. Fernandes had another plan: to discover a new bioactive molecule to treat osteoporosis. It was during my pharmacology practicums with him that I was introduced to the rheumatology department at the Université de Sherbrooke. I was struck by the department's intellectual vibrancy and dynamism. This was the beginning of the biological era in rheumatology, and the enthusiasm of the rheumatologists was contagious.

After that, everything happened very quickly. I wanted to be part of that revolution and understand how to use these molecular scal-

pels to treat immune disorders. The only problem was that none of the programs offered adequate training! But, with the support of the rheumatology department and the *Université de Sherbrooke*, I participated in the launch of the MD PhD program as its first student. This confirmed my interest in immunology and autoimmune disorders, and I soon decided to go into rheumatology.

It was at that point that I met two other mentors and visionaries: Dr. Gilles Boire and Dr. Sophie Roux. They were the ones who encouraged me to further my knowledge of immunology and epigenetics. Thanks to the support of the *Fondation des Médecins de l'Université de Sherbrooke*, I left Quebec for Boston to attend the Ragon Institute of MGH, MIT and Harvard for a three-year postdoc in Dr. Shiv Pillai's laboratory. On top of the benefit of Dr. Pillai's exceptional experience, he linked me to Dr. John Stone, an eminent rheumatologist who needs no introduction. Through working with them, I developed further as an expert in IgG4related disease and inborn errors of immunity. The common



thread running through this journey is the quest to understand how the immune system works and, more specifically, B lymphocytes, which have become the focus of my research.

I finally returned to Sherbrooke to establish my own research laboratory and begin my clinical practice. I rekindled my passion for orchids and founded an integrated rheumatoid-immuno-genetics clinic to address complex cases of immune disease.

I am profoundly grateful for the people who have supported and encouraged me. Without the invaluable mentors I have met along the way, I would not have become a fraction of who I am, and I must admit that my career path would have been a lot duller!

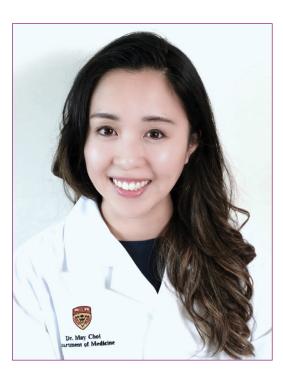
Hugues Allard-Chamard, MD, PhD, FRCPC Rheumatologist, Immunologist, Assistant Professor, Université de Sherbrooke Sherbrooke, Quebec

Rising Star: Dr. May Choi

lollowing in the footsteps of her late father, Dr. Vincent Choi, Dr. May Choi became a rheumatologist (University of Calgary, 2019) with an interest in studying systemic lupus erythematosus early on. She left Calgary in 2020 to complete a clinical and research lupus fellowship at Brigham and Women's Hospital (Boston, Massachusetts) under the supervision of lupus expert, Dr. Karen Costenbader (Professor of Medicine at Harvard Medical School). While in Boston, she obtained a Master of Public Health in Epidemiology at Harvard University in 2021. When she returned to Calgary, she started on faculty at the Cumming School of Medicine, University of Calgary, and became a Member of the McCaig Institute for Bone and Joint Health. She was promoted to Associate Professor three years later (July 2023).

Dr. Choi is also the Associate Director of MitogenDx Laboratory for novel autoantibody and biomarker testing for autoimmune diseases and the Associate Director of Research for the University of Calgary Lupus Centre of Excellence, which complements her research.

As an early career investigator, her research is focused on biomarker discovery and validation for prediction of clinical outcomes in autoimmune rheumatic diseases, and the prevention of autoimmune disease development and disease-related complications. Her studies have made use of large cohorts including the Systemic Lupus International Collaborating Clinics (SLICC) and the Nurses' Health Study (NHS). She leads a research laboratory and biobank for local, national, and international collaborators including the Canadian Inflammatory Myopathy Study (CIMS), Canadian Scleroderma Research Group (CSRG), and the Canadian Research Group of Rheumatology in Immuno-Oncology (CanRIO). She was funded by several career development awards including the prestigious Lupus Foundation of America Gary S. Gilkeson Career Development Award. She has received funding as a nominated principal investigator and co-investigator on several peer-reviewed grants including a Canadian Institutes of Health Research project grant in her



first year and a Canadian Foundation of Innovation (CFI) John R. Evans Leaders Award in her second year as an early career investigator.

Dr. Choi would like to acknowledge Dr. Marvin Fritzler, Dr. Ann Clarke, and Dr. Karen Costenbader for their guidance and mentorship through the years. She would also like to recognize the support of her institution, her research team, and lab members for their hard work and dedication to the research program. Finally, she would like to thank her family (Chris, Vincent, Lisa, Wayne, Jen, and John) for always being there for her. Dr. Choi also has two young children, Sydney (2.5 years old) and Benjamin (1 year old) and they represent her proudest achievements yet!

May Y. Choi, MD, MPH, FRCPC Associate Professor, Cumming School of Medicine University of Calgary and Alberta Health Services Calgary, Alberta

Rising Star: Dr. Sabrina Hoa

To the CRAJ readership,

I am very honoured to have received this invitation to write about my research, accomplishments and career trajectory as a rheumatologist. After completing my MD and internal medicine residency at McGill University, I pursued my rheumatology training at Université de Montréal, my post-doctoral fellowship in scleroderma at the Jewish General Hospital/Lady Davis Institute for Medical Research, and a Masters in Epidemiology at McGill University under the supervision of Marie Hudson, MD, MPH and Sasha Bernatsky, MD, PhD. The topic of my thesis was the role of immunosuppressive drugs in the prevention and early treatment of scleroderma-associated interstitial lung disease (SSc-ILD). Using data from the Canadian Scleroderma Research Group (CSRG)

cohort, I showed that patients with mild SSc-ILD who were treated with mycophenolate or cyclophosphamide had better lung function and a lower risk of clinically meaningful progression in lung disease over two years, suggesting that a window of treatment opportunity may exist to preserve lung function in SSc-ILD. This research was selected by The Arthritis Society as part of the Top 10 Research Advances of 2019.

I began my faculty appointment as an Assistant Professor with the Faculty of Medicine at Université de Montréal in 2019. I am working as a rheumatologist and clinician-scientist at the Centre Hospitalier de l'Université de Montréal (CHUM) and the CHUM Research Centre. As a clinician, I participate actively in the specialized connective tissue disease and ILD clinics at the CHUM. I have established a scleroderma clinic to further optimize patient experience, teaching, and research activities. As a researcher, I am supported by a Fonds de Recherche du Québec — Santé Junior 1 Clinician Research Scholar award since 2022. My research program focuses on early risk stratification and treatment strategies in mild SSc-ILD. I recently received a Canadian Institute of Health Research (CIHR) Project Grant to conduct a pilot randomized controlled trial comparing mycophenolate mofetil to place-



bo in subclinical SSc-ILD. I have recently been appointed as chairholder of the *Université de Montréal* Scleroderma Research Chair, following in the great footsteps of Jean-Luc Senécal, MD, who held the Chair for the past 20 years.

I am privileged to be a member of several research networks, including the CSRG, the Scleroderma Patient-centered Intervention Network (SPIN), the Canadian Research Group of Rheumatology in Immuno-Oncology (Can-RIO), and Arthritis Research Canada. I am also very grateful to be surrounded by wonderful and supportive colleagues - clinicians, researchers, mentors, students and residents - as well as very smart patients, who motivate and inspire me in my work as a scleroderma researcher. I also wish to acknowledge the strong and ongoing support of Sclé-

rodermie Québec since my Fellowship. I am particularly indebted to my mentors, Dr. Marie Hudson and Dr. Jean-Luc Senécal, who have supported, guided and inspired me throughout my career journey in rheumatology. Finally, all would not have been possible without the unwavering support of my family. As a mother of three young children, I wish to encourage everyone, particularly rheumatology residents and fellows, not to be afraid to pursue their research interests!

Sabrina Hoa, MD, MSc, FRCPC Assistant Professor, Department of Medicine, Université de Montréal Rheumatologist, Department of Medicine, CHUM Clinician Scientist, CHUM Research Centre Montreal, Quebec

NORTHERN (HIGH)LIGHTS

Rising Star: Dr. Sahil Koppikar

hank you to the CRAJ Editorial Board and the editorin-chief, Dr. Philip Baer, for inviting me to write a piece for this issue. As a medical student, I was taught that mentorship was critical in influencing and shaping careers in medicine. How true this was! As an early-career rheumatologist, the path I have carved out is largely due to the guidance and support of my mentors (and lots of luck!). While there have been many helping hands, I'd like to highlight a few; Drs. Averns and Joneja (for planting the seed of rheumatology when I was a student), Drs. Jerome, Gakhal and Eder (for patiently guiding me, fostering my clinical interests, being my advocates, and opening so many doors), and Dr. Rubin (for demonstrating a commitment to a cause and trusting me to take over three decades of your work).

I work at the University of Toronto (U of T), as a clinician-teacher. While patient care remains the crux of the job, much of my work has been built around two main areas: 1) regional and remote models of care (MOC); and 2) pointof-care MSK ultrasound (MSKUS).

As a PGY-5, I had the opportunity to make several visits to a longstanding Northern Ontario clinic in Timmins. This allowed me to appreciate the inequities in care due to location, resources, and cultural backgrounds. When I took over the clinic as staff, we looked at ways of optimizing the MOC which improved access and wait times for these patients. We continue offering this as an elective rotation to trainees. This work led to me becoming the Northern Ontario Committee (NOC) chair at the Ontario Rheumatology Association. Over the last few years, we have been advocating to Ontario Health through a business case, for an evidence-based MOC that leverages the use of extended-role practitioners (ERPs), working with rheumatologists, in a "hub-and-spoke" model to improve access and outcomes. This year, we were successful in obtaining pilot funding from the ministry to implement the model in Thunder Bay and also for capacity building to train Advanced Clinical Practitioners in Arthritis Care (ACPACs) from the north. While it was a tremendous amount of work, it has been immensely gratifying given the inequities I regularly see affecting my northern patients and, hopefully, acts as a step in narrowing that gap.



My other passion, ever since observing its use with Dr. Averns as a student, has been point-ofcare MSKUS. I personally think it improves our diagnostic and therapeutic capabilities, and I completed a fellowship in MSKUS in inflammatory arthritides. This allowed me to offer this expertise locally, to my own and colleagues' patients. I am collaborating with clinician-investigators, such as Dr. Eder, on research involving MSKUS, allowing us to better understand its role in improving early diagnosis. This led to me co-directing the CRUS Basic Course, where we are developing a pathway leading to MSKUS certification, similar to that offered to American and European rheumatologists.

The work to date has provided variety and allowed me to collaborate with some fantastic colleagues while helping me learn and grow. I

am grateful for the opportunities and to everyone who has helped me along the way. Our field continues to evolve, and I look forward to the future opportunities this brings to all of us.

Sahil Koppikar, MD, FRCPC Rheumatologist, Women's College Hospital Assistant Professor, University of Toronto Toronto, Ontario

Rising Star: Dr. Alex Legge

hen I first received the invitation to contribute to a "Rising Stars in Rheumatology" issue of *CRAJ*, I was initially very surprised and honoured to be thought of in this regard. However, as I sat down to put pen to paper, I quickly became horrified at the prospect of writing an article about myself and my accomplishments. I plan to discuss this further with my therapist.

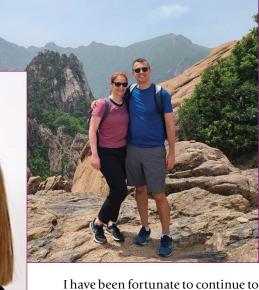
This exercise has proven to be a wonderful opportunity for reflection on my long journey to becoming a rheumatologist and all of the people without whom my success would not have been possible. If I am to be considered a rising star, it is only because they have allowed me to shine.

I have always been proud of my humble beginnings, growing up in a small town in rural Nova Scotia. Most of

the credit for my early academic success belongs to my parents for their unwavering love and support throughout all of my endeavours. It is a blessing that my father was able to see me graduate from Dalhousie University's medical school at the top of my class, shortly before his untimely passing. My mother continues to be my #1 fan and she is ecstatic that, after many years of training, I finally have a "real job".

My mother was diagnosed with rheumatoid arthritis (RA) when I was a teenager. Therefore, I entered medical school with the uncommon knowledge that rheumatology was, in fact, a real medical subspecialty, and not just a madeup word. This led me to pursue a first-year elective in rheumatology with a preceptor named Dr. Trudy Taylor. I could not have asked for a better role model to introduce me to the specialty — I wanted to be just like Dr. Taylor. Many years later, nothing has changed!

During medical school, I developed an interest in clinical research and, as I was preparing to start my residency training in Halifax, I was introduced to a potential research supervisor named Dr. John Hanly. Nearly ten years later, I continue to benefit from his mentorship. He has provided me with countless research opportunities, including supervising my Master's thesis in Community Health & Epidemiology, for which I was awarded the Governor General's Medal in the Natural Sciences & Engineering by our institution. It is a tremendous honour and privilege that he has entrusted me to lead the Dalhousie Lupus Clinic and oversee the Dalhousie Lupus Clinic Registry following his retirement from clinical practice last year. Luckily for me, he remains responsive to emails and available for Zoom calls even in his retirement.



I have been fortunate to continue to collect wonderful mentors throughout my training. During my rheumatology residency in Halifax, Dr. Volodko Bakowsky supervised my longitudinal clinic, and this is where I really discovered my passion for mysterious clini-

cal cases. Last but not least, I am so glad that I finally parted ways with the East Coast, if only for one year, to complete a research fellowship in Vancouver with Dr. Diane Lacaille, who has taught me so much.

Transitioning to practice is a challenge, and I tend to focus on all of my shortcomings. Writing this article has given me a chance to reflect on the successes of my first year in clinical practice. Highlights include establishing an Arthritis Research Canada centre in Halifax, becoming a full member of the Systemic Lupus International Collaborating Clinics (SLICC), and traveling to South Korea to speak at the 2023 International Congress on SLE. With the help of some amazing research coordinators, our research program continues to thrive, with ongoing projects in neuropsychiatric lupus and investigating the impact of frailty on people living with rheumatic diseases.

I remain indebted to the individuals mentioned above for their ongoing support of my career, and I would be remiss if I did not mention my wonderfully supportive husband Davor and our Bernese Mountain Dog "Poppy", who fill my time away from work with so much joy.

It turns out that writing about myself was not as painful as I thought it would be. I wonder what my therapist will say about that.

Alexandra Legge, MD, MSc, FRCPC Assistant Professor, Division of Rheumatology, Department of Medicine Dalhousie University Halifax, Nova Scotia

NORTHERN (HIGH)LIGHTS

Rising Star: Dr. Mohamed Osman My Journey as a Clinician Scientist

s a PhD-trained rheumatologist and clinician scientist with an active clinical practice, I am passionate and committed to delving into research questions that could be life-changing for my patients. In my view, research is a pivotal tool that can be used to derive solutions to the unfortunate complex health problems faced by my patients. I am particularly interested in studying systemic sclerosis (SSc, scleroderma) - a systemic autoimmune rheumatic disease that is associated with the worst outcomes and quality of life among all rheumatic diseases. My research is primarily focused on better understanding the grave challenges for



patients with SSc through research so that I can treat them more effectively, improve their quality of life, and ultimately find a cure for their disease.

This passion for research started early in my career. I have always loved the bench, as it allowed me to utilize my creativity and explore the "why". I initially honed my skills at the bench with formal research training during my undergraduate degree (Dalhousie University), PhD (University of Alberta), and post-doctoral fellowship (University of Alberta). I complemented my experiences at the bench by developing a deeper appreciation for various clinical research approaches during residency.

Alongside my integral research training, I have also had the benefit of invaluable mentorship over the years, both in research and patient care, which in turn has helped inform me on how to coach my mentees over the years. I have had both traditional mentors, but also individuals who truly sponsored me in various stages of my career. Certain individuals were instrumental in my journey as a rheumatologist/clinician scientist. One such example was Dr. Elaine Yacyshyn's passion for patient care and teaching which inspired me to pursue a career as a rheumatologist. She led me to my post-doctoral fellow mentor, Dr. Evangelos Michebeen an effective sounding board for discussion of my ideas. In addition to having supportive mentors, I am very fortunate to have support for my research through various funding organizations (e.g. Scleroderma Canada, the Arthritis Society, CIHR) and I am also truly lucky to be surrounded and supported by my astute colleagues at the University of Alberta (particularly in the Division of Rheumatology). Finally, I am very blessed to have the overarching support of my wife, Wassila, my two children, my friends, and my family.

In all, I have been privileged to have been afforded entry into the world of research. Despite its vast potential, in my short tenure as a clinical scientist, I have also come to accept that research is challenging and not without failings and rejection. However, I have also come to accept that this is part of the continual learning process it is embedded in, and it has not dissuaded me. Rather, it has strengthened my resolve to continue my research, as the ultimate goal remains to help the patients I can if I can.

Mohamed Osman (MO), MD, PhD, FRCPC, Assistant Professor, Rheumatologist and Immunologist, Department of Medicine, Faculty of Medicine & Dentistry University Alberta, Edmonton, Alberta

lakis, a seasoned clinician-scientist who was essential in helping me simplify and articulate complex concepts into clear testable ideas. He also inspired me to learn more about SSc, and to challenge current accepted paradigms related to the disease. I am also grateful to Dr. Jan Willem Cohen Tervaert who believed in my abilities as a researcher as my Divisional Director, but also sponsored me to pursue advanced training in SSc. Further, Dr. Robert Gniadecki (an experienced clinician scientist) has been an effective

Rising Star: Dr. Alan Zhou

r. Alan Zhou is a PGY5 Adult Rheumatology trainee and current Chief Rheumatology Resident at the University of Toronto. As a medical student, Dr. Zhou was eager to become a member of the CRA before becoming a rheumatology trainee. At the time, the CRA offered trainee memberships to medical doctors enrolled in a graduate or postgraduate program in rheumatology but did not have a category for students prior to becoming trainees.

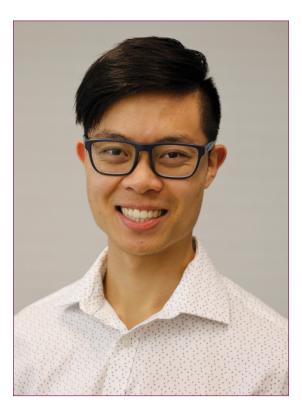
Thanks to Dr. Zhou's interest, the CRA created the Associate Membership, a new category to give medical students the opportunity to join the CRA. The Associate category is available to students who have graduated from university and are enrolled in a recognized medical school in Canada, or internal medicine residents enrolled in an internal medicine residency training pro-

gram accredited by The Royal College of Physicians and Surgeons of Canada or *le Collège des Médecins du Québec*.

Dr. Zhou is an active member of the CRA, volunteering on the Equity, Diversity, and Inclusion Task Force. We're happy to share more fun and interesting facts about Dr. Zhou below!

What made you want to become involved with the CRA as early as you did?

I first became involved with the CRA as a summer student after the rheumatology lectures in medical school piqued my interest in the specialty. Later, as an Internal Medicine resident, I sought out additional opportunities to become involved with the CRA as I wanted to connect with the broader rheumatology community, but unfortunately, there were limited opportunities at the time for non-rheumatology trainees. I'm happy to hear that there is now a new Associate Member category through which interested medical students and Internal Medicine residents can become engaged with the CRA!



If you could think of one rheumatologist or professor that influenced you to get into your field of work, whom would it be?

Dr. Lori Albert taught the rheumatology block in my second year of medical school, and it was through her lectures that I first developed an interest in rheumatology. Her passion for the specialty was infectious and made a lasting impression on me - I still very clearly remember her use of the grape analogy for swollen joints. Fast forward six years, and she is now my longitudinal clinic preceptor! She is a master clinician, and I am so grateful for the opportunity to learn from her.

What is your favourite activity outside of work?

I used to run recreationally but stopped in clerkship when life got busy. I got back into running

when I started my rheumatology residency and joined a running club where I met a lot of fellow runners. I now go on weekly runs with a buddy of mine to catch up and vent about life. One lesson I've learned over the last year — a good pair of sneakers is key!

What's the last great TV show or movie you watched?

"La Chica de Nieve" (Snow Girl) — it's a mystery thriller on Netflix based on a bestselling novel in Spain. I picked up Spanish classes this year and my teacher recommended watching the show as a way to practice the language. I quickly became hooked after the first episode!

Alan Zhou, MD Rheumatology Resident, University of Toronto Toronto, Ontario

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* May not be available in Quebec.



AWARDS, APPOINTMENTS, ACCOLADES



Dr. Tom Appleton – ORA Rheumatologist of the Year Award

Dr. Tom Appleton received the 2023 Rheumatologist of the Year Award from the Ontario Rheumatology Association. The award recognizes outstanding contributions to the field of rheumatology. For several years, Dr. Appleton has worked with a team of Ontario rheumatologists to develop digital health solutions that help rheumatologists provide the best quality care possible for patients with rheumatic diseases. These tools integrate with electronic medical records (EMRs) and empower rheumatologists to engage in self-reflection for professional practice. Dr. Appleton was honoured to receive this award at the 2023 Annual Scientific Meeting of the ORA.

Dr. Appleton is a Clinician-Scientist at Western University and Site Chief of Rheumatology at St. Joseph's Health Care London. He is also past chair of the Canadian Rheumatology Association's Annual Scientific Meeting Committee and the current chair of the ORA Informatics Committee.



Dr. Alf Cividino – ORA Distinguished Member Award

It is an honour to be acknowledged by my colleagues with the ORA Distinguished Member Award. I have had the opportunity to have a varied and rewarding career as an educator, researcher, and clinician. Any success I have had stems from the support of my colleagues and family. The tenet of any role I have had has been that an individual's success is everyone's success. Thus, by supporting each other, we all win.

My role with the ORA began from the organization's inception with Carter Thorne as the driving force. The ORA has accomplished a great deal for its members in education and advocacy. While change and adaptation are the mantra of our time, it is important to remember who we are at the core . . . clinicians providing patient care.



Dr. Nicole Johnson – Department of Pediatrics CARE Award

Dr. Nicole Johnson is the recipient of the 2022 Department of Pediatrics CARE Award – Educator. On behalf of her colleagues, congratulations and thank you for your contributions!

The Department of Pediatrics awards comprise four awards to recognize sustained and excellent contributions that advance the four core areas of the Department's mission: Clinical Service; Advocacy; Research; and Education. Dr. Johnson was nominated by her peers and chosen for the award by the Department Leadership team. Dr. Johnson has been a dedicated teacher, educator and mentor for many years. She has been the evaluation coordinator for pediatric clerkship for over a decade and is a respected lecturer and teacher for undergraduate and postgraduate medical education. She is a leader, locally, nationally, and internationally in the areas of Equity, Diversity, and Inclusion, sitting on multiple committees at the level of the University and Royal College, and non-profit organizations.



Dr. Sahil Koppikar – ORA Early Career Rheumatologist Award

Dr. Sahil Koppikar is the recipient of the 2023 ORA Early Career Rheumatologist Award. The ORA Early Career Rheumatologist Award established in 2021 recognizes an early career rheumatologist who has engaged with passion in an ORA project that has made an impact on the rheumatology community, has demonstrated longevity and commitment to the priorities of the ORA, and is a role model for early career members within the ORA.

Dr. Koppikar is a Clinician-Teacher at Women's College Hospital, University of Toronto. He is also the Director of the Timmins Arthritis Program and Chair of the Northern Ontario Committee of the Ontario Rheumatology Association.

MOC Section 3 Credits: These Can Be Easy

By Raheem B. Kherani, BSc (Pharm), MD, FRCPC, MHPE; Elizabeth M. Wooster, M.Ed, PhD(c); and Douglas L. Wooster, MD, FRCSC, FACS, DFSVS, RVT, RPVI

am still not sure what to do for Section 3 credits. It does not seem straightforward or clear. Do these really make an impact on my ability to care for patients?" questions Dr. AKI Joint, a rheumatologist member of the Canadian Rheumatology Association (CRA). "I really want to improve my learning and I typically attend the CRA Annual Scientific Meeting. The meeting in Quebec City in 2023 was great, but I did not have time to attend the workshop on Maintenance of Certification (MOC) and physician practice improvement (link 1 below). I went back to the Royal College of Physicians and Surgeons of Canada (Royal College) website and found some helpful information (link 2 below). There was even a guide to what types of activities I can report for Section 3 (link 3 below). However, I am still uncertain about how this applies to my practice and improving patient care."

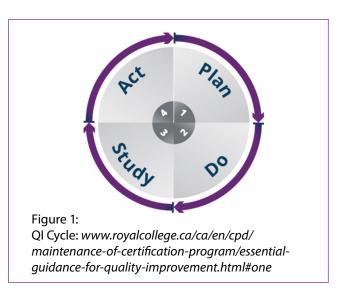
Upon further investigation of the Royal College site, Dr. AKI Joint discovered information on Quality Improvement (QI) (see Figure 1 and link 4) and remembered some of the principles of QI with the Plan-Do-Study-Act cycle. "This may help me to improve patient care in my practice".

"I remember that Dr. Isaacs spoke about precision medicine in rheumatoid arthritis in a keynote and a workshop (link 1) at the recent meeting. Perhaps if I review his presentation and look at patient factors that assist me in choosing the right therapy, I could then review five patient charts to see if I identified favourable and poor prognostic patient factors. After three to six months, I can review five more charts and see if this made an impact on my patient care. If I discuss what I found in my review with a colleague over coffee, we can both learn from our reflections on this process, and we can use that discussion for MOC Section 3 credits".

"This is a good way to link my care for patients as a rheumatologist with Section 3 credits. This certainly makes more sense and can be easy!"

Please contact the RCPSC office for further information via the Royal College Services Centre by phone at 1-800-461-9598 or email *cpd@royalcollege.ca*.

For more information on MOC and rheumatologists, please see *craj.ca/archives/2017/English/Summer/ busyrheum.php*.



Special thanks to:

Professor John D Isaacs Director, Therapeutics North East Professor of Clinical Rheumatology, Newcastle University Associate Medical Director for Research, Consultant Rheumatologist, Newcastle upon Tyne Hospitals NHS Trust Deputy Director, NIHR Newcastle Biomedical Research Centre

Raheem B. Kherani, BSc (Pharm), MD, FRCPC, MHPE CRA Education Committee Past Chair, Program Director and Clinical Associate Professor, University of British Columbia Division Head, Rheumatology, Richmond Hospital Rheumatologist, West Coast Rheumatology Associates Richmond, British Columbia

Elizabeth M. Wooster M.Ed, PhD(c) OISE/University of Toronto

Douglas L. Wooster, MD, FRCSC, FACS, DFSVS, RVT, RPVI Professor of Surgery, University of Toronto

Helpful Links:

Link 1: https://rheum.member365.com/sharingnetwork/workspace/view/99 Link 2: https://www.royalcollege.ca/ca/en/cpd/maintenance-of-certificationprogram.html

Link 3: https://www.royalcollege.ca/ca/en/cpd/maintenance-of-certificationprogram/cpd-activities-can-record.html)

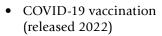
Link 4: https://www.royalcollege.ca/ca/en/cpd/maintenance-of-certificationprogram/essential-guidance-for-quality-improvement.html

Guideline Corner: Living Guidelines in the CRA

By Roberta Berard, MD, FRCPC, MSc; and Deborah Levy, MD, MS, FRCPC

Did you know that the CRA has transitioned to a "living" guideline model? This means that guideline recommendations can be updated as needed when new evidence becomes available. Guidelines are available and maintained online at *rheum.ca/resources/publications/*

Guidelines for the following topics and diseases are currently available or under development:



- Rheumatoid arthritis (released 2022)
- Juvenile idiopathic arthritis (JIA)-associated Uveitis (released 2022)
- Axial spondyloarthritis (in development)
- Transition to adult care (in development)
- Immune-Mediated Adverse Events to Oncology Medications (in development)

This section of the *CRAJ* will highlight recommendations from the CRA's living guidelines. In this installment, we focus on JIA-associated uveitis: screening, monitoring, and treatment.

Clinical case:

Molly is a 4-year-old girl seen in your office with a swollen knee for 9 months who is otherwise systemically well. You have diagnosed her with JIA, oligoarthritis subtype, following today's visit.

As a next step, would you...

- A) Order an ANA
- B) Discuss the need for regular eye screening with her caregivers
- C) Refer to an eyecare provider
- D) A, B, C

Answer: D



The CRA recommendation is that patients with newly diagnosed JIA should be screened as early as possible after diagnosis (within the first 1-3 months if asymptomatic). Children with JIA at high risk of developing chronic anterior uveitis should have an ophthalmic screening at least every 3 months for the first 4 years.

Discussion:

Chronic, asymptomatic anterior uveitis occurs in up to 20% of children with JIA and can be associated with significant morbidity, including permanent vision loss. Female sex, young age at onset of JIA (age <7) and ANA positivity are risk factors for JIA-associated uveitis.

The large geographic area that pediatric rheumatology/ophthalmology centres serve and the lack of a sufficient number of ophthalmologists in many urban centres can be prohibitive to timely access to screening. This may be particularly challenging for patients living in rural/ remote areas who must travel to access eyecare and for those requiring funding for the same. Ophthalmic screening is optimally completed by an ophthalmologist but could include another eye care provider.

Care for patients with JIA-associated uveitis requires a collaborative approach between rheumatology and ophthalmology and, in some cases, other eye care providers for screening. Caregiver(s)/patient understanding of the importance of timing of examination is critical given the asymptomatic nature of uveitis which can lead to a delay in diagnosis if initial and ongoing regular screening is delayed. Treatment for uveitis can be complex and may require combinations of topical and/or systemic therapies, with frequent healthcare visits and treatment changes.

Are you a CRA member interested in getting involved with guideline development? Reach out to Sarah Webster at *swebster@rheum.ca* to express your interest.

Adaptive Connections: How COVID-19 Transformed the Pharmaceutical Industry-Rheumatologist Relationship

By Stephanie Baxter and Karolina Szulc, Janssen Inc.

The COVID-19 pandemic undeniably changed the way rheumatologists and pharmaceutical companies engage and interact, and many of those changes are here to stay. During COVID, technology became a crucial tool to remain connected when we were forced to be apart. Yet, as we have now learned through experience, the further integration of technology into workflow across the healthcare industry offers both pros and cons.

For highly in-demand specialists like rheumatologists, the shift to virtual or limited availability to be seen in-person impacted not only patients but relationships with the pharmaceutical industry. As these relationships are helpful to ensure rheumatologists have access to the latest treatment information and product updates, assessing the past, present, and future of the pharmaceutical industry-rheumatologist relationship revealed:

- In-person still matters. Many rheumatologists who went completely virtual during the pandemic have reopened their doors to meet with pharmaceutical representatives again. The need for and importance of in-person interactions remains an irreplaceable aspect of maintaining and fostering these relationships. Nothing can replace in-person interaction, and that will remain an important aspect of relationship building.
- Convenience remains top-of-mind. Integration of virtual platforms such as Zoom allows both parties to remain connected when factors such as distance and scheduling impact in-person interactions. Hybrid conferences or medical education events, on-line meetings, email and other digital channels have become an integral way for healthcare practitioners and industry to engage, and this trend is here to stay. Both parties can maximize their time and resources while maintaining contact.
- Enhanced engagement. A broader, omnichannel communications approach that combines various methods of interactions allows for both

rheumatologists and representatives to optimize and personalize engagement opportunities. This allows each interaction to be tailored to unique preferences and communication needs. An omnichannel approach also allows for a more seamless experience for health care providers, while simultaneously helping representatives create consistency and continuity, which contributes towards building strong, long-term relationships.

Patient support programs (PSPs) matter. The pandemic emphasized the immense value of patient support programs for advanced therapies. Relationships between PSP personnel, the patient and their rheumatologist allowed for a continuous flow of information within the patient's circle of care. Even when clinics were closed, PSP personnel remained a consistent and trusted point of contact for both patients and rheumatologists, helping patients navigate their treatment journey.

If there's one thing that has remained the same over the last three years as it relates to the pharmaceutical industry-rheumatologist relationship, it is that it is an important, resilient one. The pandemic helped reinforce an integral aspect as to why these relationships exist, which is the well-being of patients. This renewed focus on patient-centric care has brought some transformative shifts in this space, bringing the ultimate goal back to the forefront: to improve outcomes, enhance quality of life, and empower those living with rheumatic conditions.

Disclosure: Janssen is a sponsor of the Journal of the Canadian Rheumatology Association (CRAJ).

The CRAJ Editorial Board solicited this article to examine the perspective of the pharmaceutical industry on the impact of the COVID-19 pandemic on the pharmaceutical industry-rheumatologist relationship. Note that the views expressed in this article are those of the authors, and not of the Canadian Rheumatology Association or the publisher, STA HealthCare Communications.

Patient Perspective: Trish Peters

Was the kind of kid who jumped in puddles, went on roller coasters, and played every sport you could think of. I chased an adrenaline rush. I wanted to feel my stomach drop every moment of my life, whether it was school, sports, or activities. Lo and behold, life had something else in store for my family and me. At the age of 11, I was diagnosed with rheumatoid arthritis (RA). My parents and I had no idea what that was or what to make of it. As a kid who loved doing things, I didn't know how to stop doing activities I loved, and my parents didn't want to stop me either.

But the pain, flare-ups, and moments of complete and utter failure where I felt like I couldn't function by myself anymore were frequent. As a result, I threw myself into studying. I was able to complete my bachelor's degree, and I decided that I wanted to pursue not just one but two masters right after I graduated. At that juncture, I wanted to embrace the things I could not do in my childhood: live worry-free. I wanted to be worry-free from injections, pills, pain, and pain management. I felt as though doing a master's would allow me to live a life where I was independent and finally had my arthritis under control.

So, in January of 2023, I packed up everything that was important to me into two suitcases and moved 6,000 km away, to be exact, 6,103 km away. Two days of travelling later, I landed on a new continent, in a new country, and in my own apartment where I would officially be alone. As a child with arthritis, I never thought I could live alone. It hasn't been easy; I've had to find doctors, get bloodwork, and figure out how to bring all my medication so far away from the place I called home.

When I'm ill, I have to depend on myself;

when I can't zip up my jackets because of a flare, I have to figure out how to do it on my own. But I never thought I would be able to do it as a kid with arthritis, and now, not only am I proving myself wrong, but I'm hoping I'm able to give hope to every child out there with arthritis too.

My goal was always to find a way to inspire kids with arthritis. And now, with the things I've been able to accomplish with a lot of support and perseverance, I know that as a young adult with arthritis, there is always a way for me and other kids who are in this situation to do what we want in life. To all kids who have been diagnosed with



RA, I would say: "Never let arthritis stop you from accomplishing any goal in your life, regardless of how big or small. Sometimes, things must be changed to accommodate how you live life, which is perfectly okay. Make the world your oyster rather than letting it tell you that you can't do something."

Trish Peters, BCom MIB & MSCIB Student, Queen's University Maastricht, Limburg, Netherlands

JOINT COMMUNIQUÉ

Innovating Breakthroughs in Arthritis

By Arthritis Society Canada

S ix million Canadians, young and old, live with arthritis today. That means more Canadians are living with arthritis than diabetes, heart disease, cancer and stroke combined, making it the most common chronic disease in the country.^{1,2}

For people with arthritis, pain is a constant struggle. How they move, work, and play must be adapted to get through the day as "normally" as possible, and the mental, physical and emotional toll can be devastating.

As Canada's largest charitable funder of arthritis research, Arthritis Society Canada has invested over \$230 million since its inception and grown its annual direct investment in research by 80% over the last three years. In 2021, Arthritis Society Canada introduced the Ignite Research Grants, which empower Canada's brightest minds to support the development of novel, high-potential projects that could be expanded in the future. To date, the organization has committed to fund 26 Ignite Research Grants, with more than \$2.5 million allocated to this initiative. Additional new grants are expected to be awarded in January 2024.



Arthritis Society Canada is empowering Canada's top scientific and entrepreneurial minds to create solutions for people with arthritis, so that we can change what it means to live with arthritis, and some day find a cure. Learn more about Arthritis Society Canada research programs at *arthritis.ca/researchers*.

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Creating Equitable Medical Education

By Mala Joneja, MEd, MD

For many years now, there has been a call for more equitable and inclusive medical education as well as appeals to address racism and discrimination in both medical education and patient care. Medical educators have urged medical schools to produce physicians who not only represent the communities they serve, but who are also trained to address racism and health inequity. Despite these calls and appeals, we witness persisting inequities in health care and persisting harm to learners due to racism and discrimination in the learning environment. To create equitable medical education, a profound and authentic change is needed, and the efforts to create this change must come from all of us.

Profound change can start with institutions and groups examining themselves closely. It is now clear that medical education and the health care system are not neutral. There is a long history of racism and discrimination embedded in these important institutions. To generate change, under these conditions, it is essential that organizations take an anti-racist stance toward medical education and clinical care. Leaders in medical education need to listen closely to students, faculty and the communities they serve to understand what truly has been the lived experience of those who are Indigenous, Black, or people of colour. Whatever is found in this self-examination needs to be acknowledged and dealt with so the institution or group can move forward or improve.

With the task of self-examination, there must follow intentional efforts to create a learning and practice environment that is anti-racist. As rheumatologists, we can work within our sphere of influence to work against racism and discrimination. We should not underestimate our own abilities to influence change as we are physicians, educators, researchers and leaders within our clinical and academic communities across the country. All rheumatologists can participate in the efforts to create change by first acknowledging the reality of racism and discrimination and then taking action. Physicians can address bias and discrimination when they witness them, engage in equitable hiring initiatives, and help colleagues from underrepresented groups achieve success. Educators can create targeted mentorship initiatives for students and trainees. Researchers can ensure their scientific endeavours are inclusive in nature and designed to promote health equity. Finally, leaders can model authentic actions for change by speaking out against racism and discriminatory practices and holding individuals accountable for exclusionary behavior.

The Canadian Rheumatology Association has an Equity Diversity and Inclusion Task Force chaired by Dr. Nicole Johnson, and this group has created a workshop on how to incorporate equity, diversity and inclusion into medical education. The workshop was presented during the 2023 Annual Scientific Meeting and will be housed on the CRA website as an educational resource for CRA members. This task force can offer guidance and direction for the CRA; however, making an organization truly inclusive and equitable is up to all members and requires action from everyone.

Acknowledgement: Special thanks to Dr. Nicole Johnson for her insights

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Tribute to Dr. Marc Favreau

By Jean-Pierre Pelletier, MD, FRCPC; and Johanne Martel-Pelletier, PhD

t is an honour and privilege to write a tribute in memory of a cherished friend of more than forty years, Dr. Marc Favreau, who regrettably passed away on August 25, 2022. Marc was a dedicated colleague and an outstanding rheumatologist, and in all the roles he was known for, he stood out as exceptional.

Dr. Favreau graduated from McGill University in 1971 with an MDCM (Medicinæ Doctorem et Chirurgiæ Magistrum) degree. He completed his training in internal medicine (1975) and rheumatology (1978) at the University of Montreal. Our professional and personal lives crisscrossed while he was completing his training in rheumatology, and our families began to build close ties, which remain today. His passion for rheumatology was contagious to the extent that he convinced us both to pursue a career in the field of rheumatology: Jean-Pierre as a rheumatologist and both of us (Jean-Pierre and Johanne) as researchers.

After completing his rheumatology training, he began his career as a rheumatologist at the Hotel-Dieu Hospital in Montreal and quickly became Head of this discipline. He was instrumental in recruiting several new rheumatologists and building the teaching and training program for fellows, trainees, and students. He was appointed Assistant Professor of Medicine in 1979 in recognition of his outstanding dedication to teaching. He was actively involved in the growth of the fellowship program and dedicated to maintaining it to the highest standard. His commitment to pre- and post-graduate teaching was exemplary. He always enjoyed meeting with students for teaching sessions to ensure they would have the best knowledge in rheumatology. The students also enjoyed his teaching, which centred on the bedside. Moreover, and quite challenging, he insisted that the trainees be upto-date with the latest medical and scientific advances in the field.

Peers appreciated him for his exceptional competence as a clinician and diagnostician. For example, among many, he always kept the patient at the forefront of his practice, ensuring they were treated with the highest respect and received the best possible care. In addition, he was exceptionally skilled at establishing close contact with his patients and ensuring they understood all the issues related to their disease and treatment. He firmly believed that arthritic patients deserved and should benefit from the latest and best scientific advances. In collaboration with his colleagues, he zealously supported many new clinical research projects within the Rheumatology Division, which he believed were vital to improving patient care.

Marc was also deeply involved in several academic activities, including being an examiner for the Royal College of Physicians and Surgeons of Canada for the specialties of dermatology and rheumatology from 1980 to 1990. He was actively involved as an organizer and participant in numerous continuous medical education (CME) programs throughout his career, being a member of the Board of the Canadian Rheumatology Association (CRA) from 2000 to 2012. His exceptional devotion to the rheumatology community was acknowledged in 2003 when he received the prestigious Marie-Thérèse Fortin Award from the Laurentian Conference of Rheumatology.

There was much more to Marc over and above the fact of being a loyal friend, esteemed colleague and academic rheumatologist. He was also a loving husband for 56 years to his wife Carole, a caring and proud father of three sons, and, more recently, a devoted grandfather to three grandchildren. Although his family was always the centre of his life, he was also involved in his community. He coached teenage hockey players for many years. One of his greatest pleasures was sharing dinner with family and friends.

Being part of Marc's and his family's life was a privilege. He will be deeply missed and fondly remembered by those who knew this warm, generous, and kindhearted man.

Jean-Pierre Pelletier, MD

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JOINT COUNT

Survey Results: Medication Access Issues in Canadian Rheumatology

his edition's Joint Count survey, in collaboration with the CRA Stakeholder Engagement Committee, asked CRA members about medication access issues in Canadian rheumatology. While medication access issues and shortages have been a concern in the past, these issues have become more prevalent and widespread since the pandemic. As one survey respondent pointed out "Access to biologic treatment is a daily issue in pediatric rheumatology, with problems related to limited provincial coverage for medication (refusal to cover medications for which a randomized controlled trial [RCT] is not available), resulting in needing to request 'special access' with a long letter for each request and renewal, and the secondary requirement to complete pages of health insurance forms, often not set up for pediatric needs, requiring handwritten explanations."

Indeed, approximately eighty percent of respondents reported that they had encountered medication shortages and access issues, though the frequency of these issues varied from 1-3 times a year for some to almost every month for others.

When queried as to how they managed medication shortages, the most common response selected was "I prescribe an alternative medication" (~78%); this was followed by "I tell patients to work with their pharmacy to locate supply" (~53%), followed by "I call the drug manufacturer/representative for more info" (~37%), and finally, "I contact the CRA or my local/provincial association" (~16%). One respondent also highlighted turning to patient support programs.

The final question asked readers "What was the most recent medication shortage or medication access issue of importance for you?" The specific medications and concerns mentioned include the following:

- Rituximab (one of the biggest issues for access in situations where it is the optimal medication for rare diseases, though even when compassionate access is granted which it often is, thankfully the process to go through can lead to delays (e.g. waiting for insurance to decline it, etc.)
- Triamcinolone hexacetonide (for joint injection in children)
- Prazosin for Raynaud's phenomenon
- Depo-Medrol[®]
- Oral suspension naproxen

- Methotrexate prefilled (subcutaneous)
- Tacrolimus
- Folate 5 mg
- Pediatric doses of etanercept (25 mg)
- Adalimumab biosimilars (some brands)
- Tocilizumab
- Prednisone (5 mg)
- Quinacrine (an alternative antimalarial)
- Mycophenolate mofetil coverage (for interstitial lung diseases [ILD] in systemic sclerosis)
- Difluprednate for uveitis
- Upadacitinib
- Chloroquine (a big issue for lupus patients who do not tolerate or have side effects from hydroxychloroquine)
- Sulfasalazine (shortages for enteric-coated formulation and non-enteric-coated)
- Anakinra
- Leflunomide (20 mg)
- Avacopan and abatacept (for CTLA-4 haploinsufficiency)
- Biologic access in general is difficult for patients with no provincial health care program eligibility

Note that a total of 53 completed surveys were received out of a possible 617. For further information on this topic or for any questions, please reach out to *Sarah Webster at swebster@rheum.ca*. The CRA Stakeholder Engagement Committee also welcomes your feedback.

Figure 1: How do you manage medication shortages?

I prescribe an alternative medication

78%

I tell patient to work with their pharmacy to locate supply 53%

I call the drug manufacturer/representative for more info 37%

I contact the CRA or my local/provincial association 16%

REGIONAL NEWS

SK

Salutations from Saskatchewan!

By Bindu Nair, MD, MSc, FRCPC

Salutations from Saskatchewan! Since our last update, we are pleased to have several rheumatologists join our community. Now practicing in Saskatoon, the City of Bridges, are Dr. Matt Chan, Dr. Ambreen Khan, Dr. Sarah Oberholtzer, and Dr. Vanessa Rininsland. Dr. Tristan Kerr has joined the Pediatric Division of Rheumatology at the Jim Pattison Children's Hospital. In the southern part of the province, Dr. Zachary Wolfmueller has opened a rheumatology practice in Regina.



River Landing Development in Saskatoon.

Photo credit: Bob Holtsman Photography

Two of our members have received welldeserved recognition for their accomplishments. Dr. Regina Taylor-Gjevre was presented with the Provost's Outstanding Teacher Award by the University of Saskatchewan for leadership and excellence in education. Dr. Alan Rosenberg has received the Saskatchewan Order of Merit, a recognition of his contributions to the province. Dr. Rosenberg was also awarded the title of Distinguished Professor at the University of Saskatchewan.

Rheumatologists in Saskatchewan continue to be busy as ever with demand for services on the rise. Our members are involved in patient care advocacy at a local and provincial level. We have outstanding residents in our Rheumatology Residency Program which is under the excellent stewardship of Program Directors Dr. Keltie Anderson and Dr. Jodie Reis.

We wish everyone a great fall!

Bindu Nair, MD, MSc, FRCPC Professor of Medicine, Division of Rheumatology University of Saskatchewan Saskatoon, Saskatchewan



News from Saskatoon!

By Regan Arendse, FRCP, PhD

The Annual Rheumatology Meeting of Saskatchewan (ARMS), was moderated by Dr. Sarah Oberholtzer, at the River Landing Development in Saskatoon. It was well attended and there was sincere appreciation for the high calibre of speakers who covered a range of stimulating topics. We look forward to future editions of the ARMS.

Regan Arendse, FRCP, PhD Assistant Clinical Professor, University of Saskatchewan Saskatoon, Saskatchewan



University Bridge (Saskatoon)

Photo credit: Bob Holtsman Photography

When your patient presents with active psoriatic arthritis,

TREMFYA®/TREMFYA ONE-PRESS® (guselkumab injection) is indicated for the treatment of adult patients with active psoriatic arthritis. TREMFYA®/TREMFYA ONE-PRESS® can be used alone or in combination with a conventional disease-modifying antirheumatic drug (cDMARD) (e.g., methotrexate).¹

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BIOLOGIC-NAÏVE PATIENTS TREATED WITH TREMFYA® 100 mg q8w ACHIEVED SIGNIFICANT

IMPROVEMENTS in ACR20 response vs. placebo at Week 24 in DISCOVER-2^{1,2*1‡}

 ACR20 (primary endpoint): 64% (159/248) (95% CI: 58, 70) vs. 33% (81/246) (95% CI: 27, 39) (**31.2% difference** vs. placebo [95% CI: 22.9, 39.5] p<0.0001st)



DISCOVER-2: LONG-TERM ACR RESPONSE DATA THROUGH TWO YEARS^{3**}

Observed ACR50 response at Week 100 in the TREMFYA® 100 mg q8w treatment group was **61%** $(n=224)^3$

Injector not shown at actual size.

It should be noted that the duration of the data presented here is beyond the duration of the data in the Product Monograph. This was an uncontrolled (no placebo) extension where investigators and patients were double-blinded to dosing regimen and patients were actively on treatment with TREMFYA®. Response rates derived using observed data.^{3**}

TREMFYA® 100 mg q8w ALSO IMPROVED PHYSICAL FUNCTION vs. placebo as measured by HAQ-DI^{1,2*1‡}

LS mean change from baseline in HAQ-DI score at Week 24 in DISCOVER-2 (secondary endpoint, p<0.0001):12*11

-0.37 TREMFYA® 100 mg q8w (n=248) (95% CI: -0.43, -0.31)
 vs. -0.13 placebo (n=246) (95% CI: -0.19, -0.07)

DISCOVER-2 HAQ-DI baseline scores were 1.3 for patients in both the TREMFYA® 100 mg q8w (n=248) and placebo (n=246) groups.²

DISCOVER-2: LONG-TERM HAQ-DI DATA THROUGH TWO YEARS^{3**}

In the TREMFYA[®] 100 mg q8w treatment group (n=248), the LS mean change from baseline in HAQ-DI score at Week 100 was **-0.53** (95% CI: -0.59, -0.46).³



TREMFYA®/TREMFYA ONE-PRESS® is also indicated for the treatment of adult patients with moderate-to-severe plaque psoriasis who are candidates for systemic therapy or phototherapy.¹

Relevant warnings and precautions:

- Do not initiate treatment in patients with any clinically important active infections until the infection resolves or is adequately treated
- Discontinue treatment if patient develops a serious infection or is not responding to standard therapy for infection
- Evaluate patients for tuberculosis infection prior to therapy and monitor for active tuberculosis during and after treatment
- Consider completion of all immunizations prior to treatment
- Concurrent use with live vaccines is not recommended
- Discontinue treatment in cases of serious hypersensitivity reactions, including anaphylaxis, urticaria, and dyspnea, and institute appropriate therapy
- Women of childbearing potential should use adequate contraception

- Use during pregnancy only if clearly needed
- The benefits of breastfeeding should be considered along with the mother's clinical needs
- Effect on human fertility has not been evaluated
- Safety and efficacy in pediatric patients have not been evaluated
- Data in patients ≥65 years of age are limited

For more information:

Please consult the Product Monograph at www.janssen.com/canada/our-medicines for important information relating to adverse reactions, drug interactions, and dosing and administration that has not been discussed in this piece.

The Product Monograph is also available by calling 1-800-567-3331.

ACR20=American College of Rheumatology 20% improvement from baseline; q8w=every 8 weeks; CI=confidence interval; ACR50=American College of Rheumatology 50% improvement from baseline; HAQ-DI=Health Assessment Questionnaire– Disability Index; LS=least squares.

 DISCOVER-2: Multicentre, double-blind, randomized, placebo-controlled phase 3 study in biologic-naïve adults with active psoriatic arthritis (PsA) (≥5 swollen joints, ≥5 tender joints,



- † Patients with -5% improvement from baseline in both tender and swollen joint counts at Week 16 were qualified for early escope and were permitted to initiate or increase the dose of concomitant medications, including NSAIDs, oral corticosteroid, and cDMARD, and remained on the randomized study treatment. At Week 16, 15.4% and 5.2% of patients in the placebo and TREMEYA® 100 mg g8w groups, respectively, met early escape criteria.¹
- q8w groups, respectively, met eorly escape criteria.¹
 Patients with missing data at Week 24 were imputed as non-responders. Patients who initiated or increased the dose of cDMARD or oral corticosteroids over baseline, discontinued study or study medication, or initiated protocol-prohibited medications/ therapies for PsA prior to Week 24 were considered treatment failures and non-responders. At Week 24, 69% and 4.8% of patients in the placebo and TREMFYA® 100 mg q8w groups, respectively, met treatment failure criteria.¹
- Treatment differences, 95% CIs and p-values were based on Cochran-Mantel-Haenszel test stratified by baseline non-biologic cDMARD and prior CRP (<2.0, ≥2.0 mg/dL).³
- Adjusted and type 1 error-controlled.¹
 The trial included a 100-week treatment phase (placebo-controlled Weeks 0–24, active treatment Weeks 24–100), and 12 weeks of safety follow-up (Weeks 100–112). Patients and investigators remained blinded with regard to dosing regimen after Week 24. Efficacy was assessed through Week 100, and safety assessments continued through Week 12.³

References: 1. TREMFYA®/TREMFYA ONE-PRESS® (guselkumab injection) Product Monograph. Janssen Inc. November 8, 2022. 2. Mease PJ, et al. Guselkumab in biologic-naïve patients with active psoriatic arthritis (DISCOVER-2): a double-blind, randomized, placebo-controlled phase 3 trial. Published online March 13, 2020 at: https://doi.org/10.1016/S0140-6736(20)30263-4. 3. McInnes IB, et al. Long-term efficacy and safety of guselkumab, a monoclonal antibody specific to the p19 subunit of interleukin-23, through two years: results from a phase III, randomized, double-blind, placebo-controlled study conducted in biologic-naïve patients with active psoriatic arthritis. *Arthritis Rheumatol* 2022;74(3):475-485. 4. Data on file, Janssen Inc. September 13, 2022.







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