I want to thank the ORA for providing the opportunity to attend the ACR conference 2016 in Washington DC.

It was a fantastic experience, with a multitude of learning and networking opportunities. One of the most exciting aspects of this conference was to be surrounded by physicians and allied health professionals that I noted had one consistent attribute. They were all people with a passion to provide outstanding patient care in the field of rheumatology.

Attending the opening evening session just whet the appetite for what was to come.

The ACR President, Joan Von Feldt opened the ceremonies by highlighting work done in the rheumatology field over the past year, as well as many of the challenges and pressures experienced in providing efficient and efficacious patient care. The changing landscape of patient demographics, limitations on rheumatologist capacities, new treatment advances and financial pressures from health care funding sources combine to demand new strategies to effect change in the field of rheumatology. She noted that service provision by allied health professionals in rheumatology will be only one of the strategies in filling the gaps.

Later in the conference, Ben Smith, past president of ARHP, presented on the 2015 Workforce Study which looked at impact of the roles of Nurse Practitioners and Physician Assistants in US rheumatology practices. I also had a chat with Ben at an AHPA luncheon and round table discussions. Ben will be at CRA in Feb 2017, and speaking at the AHPA pre-course, so I am interested in continuing our discussions in this area.

Below are a few notes and musings on some of the sessions I attended.

Dr. Joseph Kvedar presented the opening lecture. He spoke about digital health innovations and how the "Internet of Healthy Things" (title of his book), can advance rheumatology practice. Digital interventions can enhance engagement of patients and improve disease management. He discussed how the telehealth scope will continue to expand including not only video visits, but patient engagement apps for mobiles, and remote monitoring.

If you are interested in more info on digital health have a look at his website www.partners.org/connectedhealth

There were a number of other interesting presentations of studies on the use of digital health throughout the conference. Just a couple:

"Automated Cell Phone Monitoring of Disease Activity and Medication Adherence in Early RA" presented by L Kuusalo

- Developed to ensure successful initiation of treatment and adherence to treatment
- Failed in a primary outcome of looking at remission rates compared to conventional monitoring (no significant difference), however 100% patients would recommend this form of monitoring and were very satisfied it

My sense is that there are likely other unmeasured benefits to patient care, and as the authors suggest that it may be more beneficial in remote settings with less resources than theirs.

"Online consultation for Chinese Patients with Rheumatic Diseases based on Smart System of Disease Management (SSDM) Mobile Tools: A study in Medical Economics" (Poster Presentation by Fei Xiao et al).

This study looked at enhancing access to very limited rheumatology resources by using an online app where patients enter data into the digital tool in order to determine if they would benefit from an online and/or telephone rheumatology consultation. An additional benefit was a significant saving of costs associated with travel from remote areas (as well as lost work time). This streamlining of referrals from remote areas reinforced the message from the opening lecture that digital health applications will continue to grow and develop new applications.

Immunology Boot Camp - I attended some of these sessions, and every time I attend a lecture on immunology another piece of the puzzle emerges for me... it is a big "puzzle" and I have to repeatedly pore of the pieces and then refocus on the big picture...

Autoimmunity and the Microbiome - I attended a couple of presentations looking at the role microbiota in human disease. This is another big puzzle with fascinating science being explored with respect to this area. This will surely enhance understanding and potentially impact the treatment diseases in rheumatology as more is explored and discovered.

A few points I noted:

- The importance of ensuring that when looking at correlation not to jump to causation.
- Specific bacteria have been identified in mice that drive disease, but it has not been identified (yet?) which bacteria specifically influence human disease.
- The balance of good vs bad bacteria likely determines disease susceptibility (perhaps a reminder of the old adage everything in moderation?)
- Skin lupus provoked by sun...could the microbiome be driving this as well?
- Could changes to our diet (ie. increased starches) be driving some autoimmune diseases? Will dietary management eventually be a core component to managing disease?

Sex and Intimacy in Chronic Disease – Iris Zink

This was an energizing talk. If you ever get to hear Iris Zink speak, take the time to! She mentioned she is speaking in Canada at a Sjogren's conference in 2017. She is a great speaker and encourages us to address sex and intimacy issues that our patients often don't get to discuss in clinic, but is often of great concern to them. Note that The Arthritis Society has a resource publication on their website titled "Intimacy and Arthritis" that can be useful to direct people to.

OA – Emerging Targets for OA Pain

It was good to see ongoing research into targets for OA pain which included: voltage dependent sodium channels, cannabinoid receptors, new opioid receptors, and the innate immune system.

I enjoyed a presentation on nerve growth factor as a clinically important pain mediator. Anti-NGF therapies are showing some efficacy in treatment of OA pain, but there are also some significant concerns about anti-NGF Rx causing rapidly progressing OA in a small number of patients. Still some work to do here - but one to watch.

MACRA, RISE, MIPS, PROMIS – what are all these acronyms?

There were a number of presentations regarding ongoing research and outcome/quality measures that are being developed for MACRA (Medicare Access and CHIP Reauthorization ACT) and MIPS (merit based incentive payment system). You have likely already heard about RISE registry (Rheumatology Informatics System for Effectiveness) with the goal to collect data in order to drive quality improvement. As in Canada, there are developing legislative/regulatory issues that will continue to drive practice. EMR's will evolve to ensure the data in our charts is in a format that is accessible in order to evaluate practice efficacy with outcome measures. It was helpful to understand a little more about these changes, and it does make one wonder how much these American legislative changes, as well as our own changes, will impact daily clinical practice in Canada?

Dermal Temperature is an Excellent Prognostic indicator to guide RA therapy Presented by JoAnn Ball

She reported on a study showing low tech solution to detecting disease activity by using an infrared thermometer (ie used in measuring children's temperatures) to measure a hot joint (which was defined as more than or equal to 97deg F). It has high sensitivity and specificity, and is a tool that health professionals might be able to easily incorporate in order to appropriately expedite a referral to rheumatology for a patient flaring.

RA: Premature Use of Biologics Accelerating in US James O' Dell et al. (including Ontario's Carter Thorne)

- claims analysis indicate a trend of an increasing number of patients who receive a biologic without initial Rx with MTX or other synthetic DMARD
- MTX is underused in patients using biologics (not taking advantage of increased efficacy of co-administering MTX and biologic)
- There is increased, but still suboptimal use of SC MTX

Posters: There were an overwhelming number of posters, but the Annual Meeting App was well organized in breaking them down by various areas of interest. Best to browse through, or search by topic, and pick a few that interest you, otherwise it is easy to be overwhelmed walking among them all. Another option is to sign up for a guided poster tour.

"The effect of Triage Assessments on Identifying Inflammatory Arthritis and Reducing Wait times in Ontario"

I joined Dr. Claire Bombardier for the poster presentation on the ORA AHRT study, as I was one of the ACPAC therapists that participated in the study.

This was a great opportunity to discuss with many people their experiences and/or interests of working in an interdisciplinary model of care.

I was also able to chat with a few of the poster presenters about their studies, including another ACPAC therapist - Laura Passalent, from Toronto who presented on "Inter-Professional Satisfaction and Perceptions of Collaborative Practice of and Innovative Model of Care for the Early Detection of Axial Spondyloarthritis".

There was also an interesting study on Patient Satisfaction on a PT led Axial SpA Multidisciplinary clinic in Lancaster, UK. The clinic was set up to enhance access and streamline care, including using remote access to rheumatologists. This also showed very positive outcomes with high levels of patient satisfaction with an Advanced Physiotherapist led clinic.

Trade show: Besides a place to network, get a coffee or snack, it was an impressive array of all the various therapies out there. If you have a specific question or concern there can be some good resources to start you off on your information gathering. For example, I was interested in the systemic absorption rates of topical diclofenac – at the booth re Pennsaid I was able to get the reference for a study showing a 7% absorption rate of topical 2% Pennsaid compared to oral diclofenac.

In summary, I more than met my personal learning goals, as well as supporting the goals of the ORADE in reviewing information from sessions that are aligned with the four pillars of ORA:

- ✓ Advocacy and Awareness✓ Research
- ✓ Inter-professional Patient-centric Care Model ✓ Practice Efficiency

THANK YOU FOR ALL OF YOUR SUPPORT!