

An Interview with the CRA's 2011 Distinguished Investigator: Dr. Gillian Hawker

Why did you become a rheumatologist?

I liked the fact that it was a medical subspecialty that had a “whole patient” perspective—rheumatologic conditions can affect virtually all the organ systems—and that diagnosis relied on sharp history taking and clinical examination, somewhat like sleuthing, rather than simply on a blood test or x-ray.

Also, my husband had just started a practice in neonatology/pediatrics and I envisioned rheumatology would afford more flexibility of time to raise a family than hematology/oncology, the field where I was initially headed (which theoretically is true, but not the way I've done it!).

How did you become interested in the research aspects of rheumatology?

I have no idea really. I always knew I wanted to stay in academia and early on was exposed to clinical research in rheumatology by all the faculty at the University of Toronto, including my subsequent supervisor, Claire Bombardier, who at that time was deep into establishing the clinical epidemiology program there. So...probably osmosis!

What are your current areas of investigation and what are the reasons you have focused on these areas?

I have always focused my research in the area of access to and outcomes of care for people living with osteoarthritis (OA). I chose OA because no one else was paying any attention to this condition, which is by far the most common arthritis and which is becoming even more of an issue with the aging population. Although, as a rheumatologist, I believe most people with OA should be and could be effectively cared for by primary-care physicians, the reality is that this is not happening.

There are really two main areas of interest that we have had in OA: first, a long-standing interest in disparities in rates of use of total joint replacement surgery for OA by gender/socioeconomic status/geography and why these disparities exist, and what we can do to reduce them; and second, understanding the determinants and consequences of pain in OA, including the downstream effects of OA pain on fatigue, disability, sleep and mood.



Our research participants have helped to inform our research. We have been following a cohort of people living with hip and knee OA for more than 15 years and we frequently hold information sessions to ask about their main concerns. In this way, our study participants helped to influence the development of the NET grant.

Currently, we are also exploring the impact of OA on management of other common conditions like diabetes and heart disease and vice versa, hoping to get some attention to OA as an important chronic condition that cannot be ignored.

You established a CIHR NET in OA pain and fatigue. Why did you begin this team? What was the team's goal/purpose for patients with OA?

This is actually finished (2004 to 2009) and was focused on the causes and consequences of pain and fatigue in OA. This grant evolved from the 2002 OA consensus conference at which people living with OA said pain and fatigue were their primary concerns, yet little research was being done in these areas in Canada and beyond. We learned a ton from this research and I think

it has changed the way OA is considered, evaluated and understood.

Are there other areas of interest you would like to investigate in the future? What projects will you be undertaking in the new year?

In my capacity as Chief of Medicine at my hospital, I am spending a lot of time developing programs to address and prevent hospitalization in people with complex chronic conditions. Currently, approximately 1% of the population of Ontario accounts for about half of the hospital and home care costs to the province. Most of these people have multiple medical conditions, notably heart disease, diabetes, depression and musculoskeletal (MSK) conditions (mainly OA). Despite this, we continue to plan healthcare by disease. We rarely think about and deliver healthcare that considers the whole patient. Further, our treatment guidelines rarely take into consideration other comorbid conditions that make ideal care impossible (like giving an anti-inflammatory pain medication to a patient with painful OA who also has high blood pressure). My next focus of research will be clarifying the gaps and needs for care for these folks, to inform how best to address these needs.

Research to date in the area of joint replacement has laid the foundation for many ongoing studies evaluating the use of patient-decision aids and other interventions to improve access to surgery for the right patients at the right time.

Our research on pain in OA has led to new studies examining the role of neuropathic type pain in OA, which we hope will improve the targeting of pain medications to the right pain mechanism in OA.

How does your research influence the clinical care of arthritis patients? Are there differences that you see in the way that MD researchers approach epidemiologic studies and health services research compared to PhD researchers?

There are many ways our research can influence clinical care. Understanding gaps in care is important for advocacy and policy; we've developed new measures and patient-decision tools and physician tools for referral, etc.

In my personal practice, the fundamental difference between MD clinical researchers and PhD researchers is that the former interact with patients and the best research questions are generally those that come from

patient interactions. Further, the MD clinical researcher has the opportunity to integrate their research findings into their subsequent clinical care in an ongoing iterative manner—it's the best!

I also enjoy presenting our research to the public (I give lots of lay talks), answering questions and listening to people who may not be getting the help they need. I feel I am providing people with some knowledge and (hopefully) the confidence to ask the necessary questions, and to find the care and treatment that is right for them within a complex healthcare system which can be intimidating.

What advice would you give to aspiring young rheumatologists interested in a career of epidemiologic research?

I would tell them to look around themselves and figure out where they can make a unique/important contribution to the care of arthritis patients—where is there a need for research—and focus there.

I would also advise them to get excellent research training, and not to hurry to finish but instead take the time to get the skills they need to be successful. They should find good (great) mentors who are willing to spend real time with them to guide them along the way, including giving constructive—albeit sometimes tough to take—criticism (a mentor who always tells you that your work is great is leading you down the garden path).

If possible, I would recommend they work in a well established team with resources that they can capitalize on; it is much harder to start from scratch to build a research program. Start with some simple projects and work up to the big one! Success is critical to landing that first big grant.

What was your first thought when you learned that you would receive this award?

Utter joy. The ultimate honor is that bestowed by one's colleagues.

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