

The CRA's 2023 Distinguished Investigator: Dr. Murray Baron

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

I have to say that the feelings associated with being awarded something like this are very mixed. This is such an enormous honour that, of course, it gives me a deep sense of satisfaction and pride that my work in research has been recognized. On the other hand, and I expect that others have had somewhat similar feelings, it is an award that I would never have sought on my own and it left me with a bit of a feeling that perhaps I don't really deserve this.

Nevertheless, I also thought of this award as perhaps more a recognition of my leadership of a group of very talented people whom I have worked with over the last 20 years. The Canadian Scleroderma Research Group began with a meeting at the Canadian Rheumatology Association (CRA) meeting in Quebec City 20 years ago. I cannot remember exactly all the attendees but many of the eventual rheumatologists who recruited patients and recorded data were there, including Sharon LeClercq, Janet Markland, Janet Pope, David Robinson, Doug Smith, Maysan Abu-Hakima, Peter Docherty, Elzbieta Kaminska, Niall Jones, Evelyn Sutton, Marie Hudson and Nadir Khalidi. We were joined in later years by Alena Ikic, Ariel Masetto, Genevieve Gyger, Maggie Larché and perhaps others I have inadvertently left out, for which I apologize. And, of course, Marv Fritzler, who did all our testing for antibodies, stored all our sera, and offered invaluable advice over many years.

And then there are the over 1,600 patients who donated their time, personal details, and biospecimens, without which this research could never have been done.

So, this wonderful award was something that I felt I accepted on behalf of a very large group.

Why did you become a rheumatologist? What or who influenced you along the way to do so?

When I did a rotating internship at the Jewish General Hospital in Montreal in 1972, the chief medical resident — and also a friend of mine — was Dr. Howard Stein who went into rheumatology and turned up on staff at St. Paul's Hospital in Vancouver when I was there in 1975 doing my internal medicine residency. I attended his clinics and did a 3-month rotation at G.F. Strong Rehabilitation Centre. I was impressed by both the clinical skills required in rheumatology and the academic aspects of the advances in the rheumatic diseases and decided that this would become my area of specialization.



What do you believe are the qualities of a distinguished investigator?

What a loaded question! I think all investigators are driven by the excitement of creating new knowledge. For my research and that of my colleagues, the idea that you could create a database of patient information and suddenly be able to query all that data and come up with new information about a serious but rare disease was just so exciting. It was a "build it and they will come" situation, where questions we never even thought of when we created our registry just popped into our minds as we looked at the data.

In 1982, you created an inpatient rheumatic disease unit at the Jewish Rehabilitation Hospital for multidisciplinary care of patients. That unit closed about 20 years ago when biologic drugs became available for rheumatoid arthritis, vastly improving patients' health and well-being. Since then, research has become an important part of your contribution to medicine, and you created the Canadian Scleroderma Research Group (CSRG) in 2003. Can you tell us more about this research?

The CSRG research has been multi-pronged but mostly clinically based, although we have collaborated with several labs working on serum and skin biopsies. Initially, our work focused on function and quality of life issues facing our patients. We showed that our patients suffered very serious consequences of their disease which could be measured reliably. This opened the way to determine if function and quality of life could be improved by interventional trials. We have continued to focus on outcome measures of the disease. In collaboration with colleagues in Australia, we have developed a method to assess the accrual of organ damage over time and are now working with these same colleagues on a measure of disease activity. Our data have also been used in the development of a new endpoint, the Composite Response Index for Clinical Trials in Early Diffuse Cutaneous Systemic Sclerosis (CRISS), which is currently being used in drug trials in SSc and in the development of new classification criteria for SScs. Three of the four members of the core committee were Canadians, including myself. We are also currently working on a measure of the severity of cardiac involvement in SSc and have also looked at the reliability and validity of other outcome measures.

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



Dr. Murray Baron receiving his award from CRA President Dr. Nigil Haroon at the CRA Annual Scientific Meeting in Quebec City, which took place in February 2023.

We are very interested in doing more work on the damage index we have created, and the new activity index under development. We have also launched a large project to try to better predict the course of lung disease in SSc, which will be essential to the efficient design of clinical trials of therapies for that condition, which is a major cause of morbidity and mortality in SSc. Part of this work has involved collecting hundreds of lung CT scans that have been performed across Canada on our patients over the last 20 years. We hope to be able to use artificial intelligence to read those scans to allow us to better understand the variables associated with the worsening of lung disease over time.

You have also been president of the Scleroderma Clinical Trials Consortium (SCTC) which represents most of the world's scleroderma researchers. You have transformed this group into a vibrant new organization with many working groups performing research that will improve the efficiency of scleroderma clinical trials. You are now an executive member of the organization and run two of the working groups. Additionally, you also chair a subcommittee that is working on a white paper for regulatory agencies, including the FDA, that will make recommendations about outcome measures for scleroderma therapeutic trials. What is the greatest professional and organizational challenge you have faced, and how did you address/overcome this challenge? Participating in the activities of the SCTC has been one of the highlights of my time as a researcher. The organization has been funding projects that aim to improve the efficiency of clinical trials. If you cannot measure it well, you cannot study it. This could easily be the motto of the SCTC. The challenge has been raising the funds to support these research projects. I created an SCTC-PHARMA roundtable that has raised substantial money from pharmaceutical companies that has helped the SCTC support this kind of research, and I am very content that my input has been able to support that.

What have been the most rewarding aspects of going into the field of rheumatology and what have been some of the most challenging aspects?

Rewarding: Helping to improve the quality of life of our patients and to have been present during the transition from so-so drugs like gold injections to the very effective biologics. Frustrating: The slow advances in treating the non-inflammatory diseases like osteoarthritis. Those diseases make up a very high percentage of rheumatic diseases, and together account for the major proportion of the morbidity our patients suffer. Over the 40 years of my clinical practice, I do not feel we have made any major advances in the treatment of these conditions. Luckily, there are many highly qualified researchers in Canada and elsewhere working on osteoarthritis and, hopefully, that situation will improve.

What is your proudest accomplishment?

The creation of the CSRG and the collaboration with so many contributors across Canada and elsewhere.

What advice would you give to someone looking to pursue a career as an academic rheumatologist?

Do it! Canada is an excellent place to do this kind of work as we have an important tradition of collaboration not present in every country. Basically, it is important for young potential investigators to understand that research is fun and exciting. Creating knowledge is not what we are taught in medical school. There we learn to use knowledge. I can thus understand how difficult it is for a trainee to make the leap from many years of learning how to use knowledge to creating knowledge instead. Try it out and accept the challenge because the results are so rewarding!

What is your favourite book of all time?

I am just listening to "Demon Copperhead" by Barbara Kingsolver and it's terrific. Not sure I have a single favourite. I walk to work and listen to books on the way. At home, I do it the old-fashioned way — reading.

What is your favourite food or cuisine?

Anything my wife cooks. She is a terrific cook. I didn't have to say this just in case she reads this. It's true.

What is your dream vacation destination?

Somewhere the temperature is room temperature, the sky is clear every day and I can play golf while my wife plays tennis.

How many cups of coffee does it take to make a productive day?

None. But I do need a Pepsi Zero once a day, so I guess that covers my caffeine requirement.

*Murray Baron, MD, FRCPC
Senior Investigator, Lady Davis Institute
Division of Rheumatology,
Jewish General Hospital
Past Director, Canadian Scleroderma Research Group
Professor of Medicine,
McGill University
Montreal, Quebec*