Yours is a newly created post, working alongside Navdeep Bains, Minister for Innovation, Science and Economic Development. In what ways will the two roles differ?

Both Minister Bains and I have ‘science’ in our official title, which reflects the importance the Government places on the role of science in informing our policies and driving innovation and growth throughout the Canadian economy. Both of us are responsible for ensuring a strong science ecosystem in Canada and helping that translate into economic and societal benefits for Canadians. Minister Bains’ area focuses on innovation, and driving the economy. My area is support for research and ensuring evidence-based decision making. Together, we will work to ensure that the Government of Canada’s policy is based on science, facts and evidence.

To what extent will Canada benefit from having two science ministers?

A strong science base is key to Canada’s success in today’s highly competitive global knowledge-based economy. Having two ministers championing science will be good for the economy and government decision making. The Government of Canada recognises the importance of broad scientific debate, especially about transformational change and discoveries: those that can truly change outcomes for Canadians, the country and the world. I love the words of Nobel Prize winner John Polanyi, who said ‘Human dignity is better served by embracing knowledge’. Canada will benefit from having two ministers in this portfolio, who are focusing on science as part of their responsibilities, and a government that believes good scientific knowledge should inform decision making.

With many governments worldwide placing emphasis on impact and technology transfer, how much importance will the Canadian Government be attaching to pure or basic research?

Basic or fundamental research is the source of ideas for innovations and applications. We need a strong research base, and I have been specifically tasked by the Prime Minister to examine ways to strengthen the recognition of, and support for, basic research. International collaboration is a key strategy for growth, and we expect that our continued success in science, technology and innovation will come not only from domestic initiatives, but also from strong international collaboration. Doing so will involve working closely with my departmental officials, ministerial colleagues and key stakeholders across the scientific community.

In an exclusive interview Minister Duncan talks about her 25-year commitment to science and reveals the importance the Canadian Government lends to scientific considerations in decision making, knowing that this could help change Canada and, indeed, the world.
How will you strive to ensure there is an effective three-way conversation between the Government, public and scientists?

The Government is committed to treating scientists with respect. One of their first actions since the election was to reverse the longstanding limitations on scientists’ ability to discuss their work publicly with Canadians and reinstating the long-form census.

Support for science is essential and we will work with Canadian scientists, universities and research labs to reinsert scientific considerations into the heart of our decision making and investment choices. As part of this work, the science portfolio will collaborate with other science-based departments to make it more readily available to Canadians.

Furthermore, a Chief Science Officer will be appointed to ensure government science is fully available to the public; that scientists are able to speak freely about their work; and that scientific analyses are considered when the Government makes decisions.

In the Prime Minister’s mandate letter to you, Rt. Hon. Justin Trudeau asks for ‘real change’, particularly regarding environmental issues. Why is the spotlight on the environment and climate change?

Climate change is the challenge of our generation. In Canada, we can already see and feel the effects of climate change: there have been floods in Alberta and wildfires across British Columbia, while Prince Edward Island’s coastline is receding. The Arctic is experiencing serious climactic changes with melting permafrost, impacting the lives of Indigenous peoples. Understanding Arctic matters is critical, and supporting Canada’s scientists in the collection of data to better understand northern ecosystems will help us develop more effective evidence-based policies to protect our arctic regions.

We have a responsibility to the next generations and are committed to building a lasting international solution to fight climate change. We rose to that challenge at the 2015 Paris Climate Conference (COP 21) by reaching an agreement with other countries to strengthen the global response to limit global average temperature rise to below 2 °C, as well as pursuing efforts to limit the increase to 1.5 °C. We are also proud to be participating in Mission Innovation, an initiative announced at COP 21 involving 19 other governments. As a contribution to Mission Innovation, Canada will invest an additional CA $100 million each year in clean.
technology producers and tackling Canada’s most pressing environmental challenges. The Government of Canada will also invest an additional $200 million each year to support innovation and the use of clean technologies in the natural resources sector.

We are committed to making strategic investments in Canada’s clean technology sector and making our resource sectors world leaders in the development and use of clean and sustainable technologies and processes. Not only will these strategic investments help us tackle climate change, they will also create jobs. Canadian businesses now have an incredible opportunity to be part of the solution and help build a low carbon economy.

The most recent post on your website reflects on Canada’s commitment to helping children in emergency situations, and your latest speech to the House of Commons addressed violence against women. Are these subjects you feel particularly passionate about?

Helping children has been a passion of mine and for years I have advocated for the implementation of a nutrition programme in schools. Sadly, the fact remains that hungry children can’t learn and it is a tragedy that in this day and age so many children are at risk of going to school hungry. Truth be told, I think Canadians should know about these global crises and their impacts on children. We have always been, and will continue to be, measured by how well we protect the most vulnerable people in the world.

I am proud of the Government’s most recent actions in welcoming Syrian refugees. In fact, I was Critic for International Cooperation when (then MP) Prime Minister Justin Trudeau first announced our goal of accepting 25,000 Syrian refugees, and couldn’t be more proud of this important commitment demonstrating our strong humanitarian tradition. I am pleased to see that Canada has taken a leadership role in welcoming refugees and that Canadians are demonstrating generosity by opening their hearts to those facing hardship.

You have also highlighted the issue of missing Aboriginal women as well as violence against women, and you are a female MP and scientist. Will you be tackling gender inequality in science under your new remit?

Unfortunately, there are very real challenges that women who work in male dominated areas or industries must face and similar challenges exist in the scientific community. For the past 25 years, I have been fighting prejudice so that women who pursue careers in science today don’t face the same challenges I had to. Now, more than ever, I am committed to working to improve the representation of women in the STEM disciplines.

One way I will do this is to work with my colleague, the Minister of Employment, Workforce Development and Labour, to help employers create more STEM co-op placements, which will provide new opportunities for our youth, including young women and indigenous peoples.

As Minister of Science, I am personally committed to promoting the power of science and knowledge among our youth, with an emphasis on girls and women. Improving the participation of young women and girls in science-based education and increasing awareness of science-based careers will enhance the diversity of talented and innovative people who fuel Canada’s future.

We have a responsibility to the next generations and are committed to building a lasting international solution to fight climate change.

One thing is certain, the Government of Canada is committed to promoting equity and equality for women in all spheres. My colleague, Minister Hajdu, is also committed to working with experts and advocates on a comprehensive strategy and action plan to address gender violence.

As can be expected with any position in government, some criticism has been levelled at you, with one researcher claiming you have ‘no qualms exerting political pressure on the scientific community’. What is your message to those who may be cynical of any change you’ll be able to effect?

Looking back at scientific history, I believe that asking questions has helped us answer many of the universe’s mysteries and helped spark new ideas. In this case, I simply asked for the research to be done. As for my background, my experience speaks for itself. I have been committed to science for the past 25 years. I value and am committed to open and free scientific debate. I have always been, and will continue to be, an advocate for evidence-based science.

Finally, are there any Canadian scientific endeavours you are particularly excited about?

In early December, I was honoured to join Dr Arthur McDonald in Stockholm as he received the Nobel Prize for Physics. The work of Dr McDonald and his team has contributed greatly to realising Canada’s leadership in astrophysics, and is setting paths for new directions in physics and astronomy.

I am pleased about the direction our Government is taking with regards to climate change and clean technologies. Climate change is the challenge of our generation. And supporting Canada’s scientists in the collection of data to better understand our ecosystems will help us develop more effective evidence-based policies to protect our environment.

Are there any other exciting plans you’d like to share?

I am particularly looking forward to reaffirming the Government’s commitment to evidence-based decision making. Establishing a Chief Science Officer position will ensure that government science is fully available to Canadians, scientists can speak freely about their work and scientific analyses are considered when the Government makes decisions. I have begun to look at best practices and will work in consultation with the broader scientific community to establish this position.