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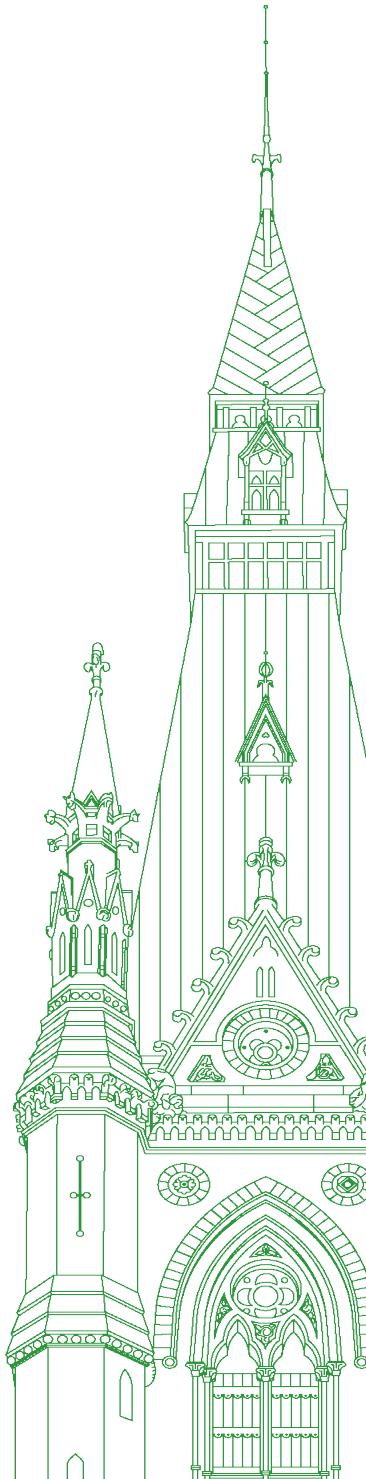
# Standing Committee on Science and Research

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Chair: Salma Zahid

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**Thursday, October 29, 2026**

● (1530)

[*English*]

**The Chair (Salma Zahid (Scarborough Centre—Don Valley East, Lib.)):** I call the meeting to order.

Welcome to meeting number 50 of the House of Commons Standing Committee on Science and Research. We are meeting today to commence our study on the risks and threats to Canadian science and research.

I would like to make a few comments for the benefit of the witnesses as well as the members.

Please wait until I recognize you by name before speaking. For those participating by video conference, click on the microphone icon to activate your mic, and please mute yourself when you are not speaking. For those on Zoom, at the bottom of your screen, you can select the appropriate channel for interpretation: floor, English or French. For those in the room, you can use the earpiece and select the desired channel.

I would like to remind witnesses that committee members may ask questions in either French or English. If you will need interpretation, please take a moment now to prepare your earpiece and select the listening channel you need in advance to take full advantage of the time allotted for questions and answers.

All comments should be addressed through the chair. For members in the room, if you wish to speak, please raise your hand. For members on Zoom, please use the raise hand function. The clerk and I will manage the speaking order as best we can, and we appreciate your patience and understanding in this regard.

With that, I would like to welcome our four witnesses for today.

I would like to welcome Dr. Les Jacobs, professor, Ontario Tech University. We are also joined virtually by Margaret McCuaig-Johnston, senior fellow, institute for science, society and policy, University of Ottawa. We are joined in person by Dr. Mona Nemer, chief science adviser of Canada. We are also joined by the Université de Sherbrooke, represented by Christian Sarra-Bournet, associate vice-president of infrastructure development and quantum strategy, by video conference.

Welcome to all the witnesses. Thanks a lot for appearing before the committee.

All of you will have five minutes for your opening remarks, and then we will go into rounds of questioning by the members.

We will begin with Dr. Nemer.

Please go ahead. The floor is yours. You will have five minutes for your opening remarks.

**Mona Nemer (Chief Science Advisor of Canada, Office of the Chief Science Advisor of Canada):** Thank you, Madam Chair.

Honourable members, it's always a pleasure to be able to exchange with you.

[*Translation*]

Thank you for offering me the opportunity to contribute to your study on risks to science.

[*English*]

I welcome your examination of the risks and threats to Canadian science and research.

Canada invests billions annually in research and development. These investments have built a world-class science system that helps support our prosperity and national security. As geopolitical uncertainties rise, including in global trade, securing our sovereignty and socio-economic resilience becomes pressing.

We need to double down on safeguarding our research and research system and on turning our discoveries and intellectual property into scaled technologies. This means addressing threats to physical access, cybersecurity, supply chains and loss of talent. It means fostering a science culture that recognizes security risks and promotes basic research security hygiene so that safeguarding data and intellectual property become routine practices for our researchers and innovators.

[*Translation*]

Basic research security hygiene is not about creating another layer of complex rules or imposing a heavy security regime. It is about embedding sound everyday practices and fostering a culture that helps researchers recognize and manage risks related to their work and intellectual property. Today, those risks are being amplified by a shifting geopolitical landscape and by the rapid evolution of AI in science.

[*English*]

The work done to date in Canada—that is, encouraging researchers and supporting institutions to safeguard research, as well as assessing scientific collaboration in certain sensitive areas—is important to address risks that arise at the project and researcher levels.

Canada also needs to address risks arising at the science system level. This involves strategic interventions in priority sectors to prevent system failure—for instance, sovereign data and compute availability to enable safe and secure AI adoption; domestic space launch capability to support sovereign satellite applications; and secure production facilities for critical pharmaceuticals and biologics to enhance the resilience of the health and agri-food sectors.

Increasingly, people and system risks converge and, at times, even synergize. For example, what happens to intellectual property rights when AI agents are used as research collaborators trusted with propriety data? What if unpublished research data are leaked through commercial large language models? Clearly, researchers need training in the safe and effective use of AI, but secure and safe infrastructure and tools will need to be developed. From a science system perspective, AI sovereignty, from models to data, should be considered.

● (1535)

[*Translation*]

Safeguarding our research and intellectual property requires understanding risk at every level: the researcher, the individual project and the broader scientific system. This includes risks associated with not possessing or controlling critical capabilities and infrastructure. And, of course, it means recognizing how these risks interact and can compound one another.

[*English*]

Addressing these risks requires a shared strategic vision among the S and T areas that are critical for Canada's national security and sovereignty, in addition to cultural change in the research community. This is the collective responsibility of individuals, funders, institutions and governments.

Science is a part of our national identity—and, I would say, national security—and a safeguard for our future. Let's make sure we define it on our own terms, protect it and use it for the good of our country.

[*Translation*]

Protecting our scientific capacity, our collaborations and the integrity of research benefits us all.

[*English*]

**The Chair:** Thank you.

We will now proceed to Dr. Jacobs for five minutes.

Please go ahead. The floor is yours.

**Doctor Les Jacobs (Professor, Ontario Tech University, As an Individual):** Good afternoon.

I'm Les Jacobs. I'm vice-president of research and innovation at Ontario Tech University, which is located on the east side of the greater Toronto area, and has a student population of about 15,000. It's predominantly a STEM-focused university.

Thank you for the invitation to speak about current risks and threats to Canadian university science and technology research. My focus here in these opening remarks is on the university research enterprise, but I'm happy to say a bit more about academic programming in the question period. Likewise, I won't say much in these initial remarks about Ontario Tech, but again, I can do so in the question period.

Although I could raise a number of different issues today—and I note that there's the in-camera session after this on AI—I want to highlight specifically the decline in trust and confidence in universities among the Canadian public. I don't think I need to stress to the members of this committee how important that public trust and confidence is to the success of our university research ecosystem, yet at this particular moment, the public trust and confidence in Canadian universities is at an all-time low, putting at risk the ability to build on so many of the tremendous gains made by our scientists and researchers in the past decade.

In a sense, I'm highlighting that this sort of historically low public trust and confidence in public institutions in a democratic society such as ours is not simply a risk or threat, but indeed a meta-risk—one of a different order.

Last week, the Law Society of Ontario conferred on me an honorary doctorate of law for my career contributions to rule of law, human rights and access to justice in Canada and internationally. In my acceptance address at the call to the bar convocation for new lawyers at Roy Thomson Hall, I noted that there's an important parallel between the historically low public trust and confidence in universities and the correspondingly historically low public trust and confidence in the courts and the justice system.

In the case of the courts and justice system, too many members of the Canadian public doubt that the legal system is fair or helps them when they have everyday legal problems. My advice to the new generation of lawyers joining the Ontario bar last week, building on my own research and policy work for many years, was that they exercise their voices and agency in the legal profession by creating a client-centred, problem-oriented justice system that builds trust and confidence among Canadians.

Here, I'll shift to saying a bit more about what we need to do to renew and build greater public trust and confidence among Canadians in the university research enterprise and the federal agencies that are integral to its success.

There are four important pillars I'd highlight. The record of Canadian universities is strong on three of the four.

First, the research enterprise should be seen by the Canadian public as oriented toward solving problems that have some visibility in their lives. This may require discovery research, curiosity-driven research, mission research or applied research. Really, I'm sort of agnostic on that. Some of these problems may be technical and scientific, but others may require social innovation to address issues such as homelessness, youth mental health or the social licence of nuclear energy facilities or AI data centres.

The second pillar is that the university research enterprise today must be grounded in partnerships with diverse industries, NGOs, community organizations, federal and municipal governments and, of course, the broader public sector and international organizations. These partners are often our best ambassadors for university research and its value.

The third pillar is that graduate students need to be highly visible in our research programs, with training and learning integral to how these programs are carried out. It's notable that we have post-docs present today, which illustrates the importance of that exercise. Over the past two years, we've seen from the Government of Canada historic new investments in graduate students, through the tri-council and Mitacs.

The fourth pillar, which I think is the neglected one, is to integrate at scale undergraduate students into the university research enterprise. This would provide them with unique learning opportunities and engagements with research partners. It's on this fourth pillar that I think we fall short, especially compared to some other countries, such as the technical universities in Germany and the Netherlands.

● (1540)

If members of the public have direct engagement with universities as students, parents or other family members, it is most frequently through our undergraduate students. There are about 1.5 million undergraduate students in Canada. For a large number of these members of the public, university research is a black box—distant and unknown.

If we want to build greater public trust and confidence in the university research enterprise, providing opportunities for more undergraduate students seems key. This is how we tell a large part of the public about the value and importance of university research in science and technology. However, we invest surprisingly little, directly, in funded research opportunities.

**The Chair:** Can you wind up, please? Your time is up.

**Dr. Les Jacobs:** Yes, I am winding up.

The flagship program USRA only trains about 3,500 students a year. Mitacs matches that, roughly.

Why invest now? Declining public trust and confidence in our universities among Canadians brings, in my view, a new level of urgency. Scale undergraduate student involvement in university research to address that crisis.

**The Chair:** Thank you. Maybe you can get to other points when we go to the rounds of questioning, as your time is up.

We will now proceed to Ms. McCuaig-Johnston.

Please go ahead. You will have five minutes for your opening remarks.

**Margaret McCuaig-Johnston (Senior Fellow, Institute for Science, Society and Policy, University of Ottawa, As an Individual):** Thank you, Madam Chair. I'm very sorry that I can't be there with you in person.

I was privileged to work in the Canadian public service for 37 years, primarily in science and technology policy, programs and funding. In my last position before I retired in 2012, I was the executive vice-president of NSERC.

I joined the Institute for Science, Society and Policy at the University of Ottawa 14 years ago as a senior fellow, where I've been writing about China's innovation system. I started seeing a lot of problems as Xi Jinping introduced an indigenous innovation policy focused on taking western technologies and making them Chinese: the integration of military and civilian technology development, China's technologies in the Arctic, the number of Chinese military professors in Canadian universities and the many problems Canadian technology companies were having with their joint ventures in China.

Some of these risks posed real problems for Canadian universities, as well as to the Canadian government from a policy perspective. In 2020, I was very happy to see that NSERC had developed a very user-friendly checklist for professors as to how they could protect themselves from having their intellectual property taken in China.

Still, there were a lot of things going under the radar. I credit Bob Fife and Steve Chase for uncovering these, such as a machine learning lab at York University funded by iFlytek. The leaders of the lab were from China's National University of Defense Technology under the Central Military Commission. iFlytek is the company that uses voice recognition technology on the Uyghurs. All Uyghurs have to record their voices on iFlytek equipment in different modulations so the police know who is talking on the phone in any conversation. Queen's University had funding from iFlytek too.

Mr. Fife and Mr. Chase did another story when the University of Alberta signed an MOU to be a strategic partner with HKAI Lab. HKAI Lab is funded by Alibaba and SenseTime, a Beijing-based AI company blacklisted by the U.S. government for its surveillance role in the repression of Uyghurs in Xinjiang. They also did a story about Huawei selling its 5G equipment secretly to Telus at suppressed prices before the government made the decision whether to allow Huawei into our 5G systems. Telus went ahead and installed it anyway, explaining, “You didn't tell us not to do it.”

All these stories contributed directly to a government announcement in 2021 that there would be a new national security screening for NSERC projects. Two-thirds of the first projects in the screening were turned back. This was extended to CIHR and SSHRC as a tri-agency initiative. Understandably, many researchers did not want their own projects to be derailed. They appreciated funding from China for their work. Ultimately, most projects were not derailed. The system works as it should.

In 2023, Mr. Fife and Mr. Chase broke the story that there were more than 50 Canadian universities partnering with the National University of Defense Technology, the premier technology R and D feed to the People's Liberation Army. Again, the government responded quickly and developed a list of universities and institutes in China, Russia and Iran that would be off base to Canadian researchers with federal funding.

The government's quick action in each case has given our country a research security system that I've often called the gold standard for the world. We can't pull it back now that we have a strategic partnership. I agree with everything Mona Nemer just said. Just yesterday, the U.S. banned imports from BGI Genomics because its technology is made by Uyghur forced labour. BGI and Huawei have not given up their Canadian footprint. They have a presence on and beyond campuses. A few professors have even boasted about how they've gotten around the rules.

This is a complex problem that must be addressed, and I look forward to talking about it today.

Thank you.

● (1545)

**The Chair:** Thank you.

Our last witness is Mr. Sarra-Bournet.

Please go ahead. You will have five minutes for your opening remarks. The floor is yours.

[*Translation*]

**Christian Sarra-Bournet (Associate Vice-President of Infrastructure Development and Quantum Strategy, Université de Sherbrooke):** Thank you, Madam Chair.

Ladies and gentlemen of the committee, thank you for giving me the opportunity to contribute to this study on the risks and threats facing Canadian science and research.

My name is Christian Sarra-Bournet, and I am associate vice-president for infrastructure development and quantum strategy at the Université de Sherbrooke.

First, I would like to say a few words about the Université de Sherbrooke. As one of Canada's 15 largest research-intensive universities, we are known for our partnership-based approach. We are also internationally recognized for our quantum ecosystem and our strengths in biomedical research. These two areas are strategically important to Canada, both economically and in terms of certain applications related to national security.

This is one of the reasons why research security is of such direct importance to us. In our view, it is an essential part of safeguarding people, knowledge, infrastructure and Canada's capacity for innovation. However, research security measures must be implemented in a targeted and proportionate manner, with due regard for academic freedom, scientific collaboration and openness, which are the very foundations of university research.

Allow me to illustrate this reality through our experience in the field of quantum science and technology. As you know, quantum technologies are among the sensitive research areas Canada has identified. The government has also imposed export controls on certain quantum computing technologies because of their strategic importance to national security and their economic potential, which is measured in the trillions of dollars. Thanks to decades of sustained investment in fundamental research, talent development and innovation, Canada now occupies an enviable position in this sector. We are now home to one of the world's top five quantum hubs, and according to Innovation, Science and Economic Development Canada, approximately 100 companies are active in the quantum sector across the country.

Today, quantum technology is at a pivotal moment. International investment is growing rapidly, and advances in research and development are remarkable, yet several scientific and technological hurdles remain. Future breakthroughs will depend on fundamental research, the international exchange of knowledge and the ability of Canadian researchers and companies to collaborate with the best partners around the world.

Universities therefore have a critical role to play. However, we must proceed with clear-eyed realism. We know that Canadian knowledge and expertise are highly sought after. The key question, then, is how can we foster international scientific collaboration and attract top talent while also protecting our strategic interests?

First, Canada must remain open to international research collaboration. In an ever-changing geopolitical landscape, trusted partnerships must be strengthened and diversified. The answer is not to close ourselves off from the world and hope to win the innovation race in isolation. On the contrary, Canada should deepen its collaboration with trusted partners, particularly in Europe, through initiatives such as Horizon Europe, and by participating in major international scientific projects. At the same time, these collaborations must be supported by robust risk assessment processes, effective safeguards and the flexibility to respond to a changing landscape. Protecting research does not mean isolating it.

Second, to ensure technological sovereignty, Canada must have the confidence to pursue its goals. In strategic sectors such as science and technology, even though we are currently in the middle of the pack, there is a genuine risk of being left behind. Our objective should be to build on our existing strengths in research and development, working together with our industrial partners and the government, to develop a genuine quantum industry. This means supporting the growth of Canadian companies, retaining top talent, investing in critical infrastructure and strengthening complete value chains here, particularly in the Eastern Townships. It also means adopting intellectual property strategies that reflect the unique realities of quantum science and technology and making investments that match our ambitions. In short, we must ensure that discoveries made in Canada benefit Canadians first and foremost.

Third, we must ensure that researchers and institutions have the means to make informed decisions. The research security component of the research support fund has enabled the Université de Sherbrooke and other universities to develop robust institutional strategies and to support the implementation of federal guidelines. This funding is essential. However, current funding levels cover only a portion of the actual costs incurred by institutions. We therefore recommend that the federal government adjust this support to reflect evolving needs and expand access to it in order to strengthen the security and resilience of the entire Canadian research ecosystem. We also support initiatives that promote the exchange of information, the sharing of best practice and the reduction of duplication between institutions.

Allow me to conclude with a few observations on research and development projects related to national security. Universities such as the Université de Sherbrooke fully recognize the unique challenges associated with these projects. Establishing secure research environments goes far beyond standard research security measures. In particular, these environments require security clearances, suitable facilities, specialized equipment and rigorous compliance processes. If universities are to participate fully in these strategically important projects, it is essential that the additional costs associated with these requirements be adequately recognized and funded through the relevant research agreements and programs.

To conclude, I would say that research security is a collective responsibility. To succeed, Canada will need to combine vigilance, collaboration, innovation and sustained investment.

● (1550)

We must protect the strengths that underpin our success while preserving the openness that has made our research ecosystem one of the finest in the world. The Université de Sherbrooke remains committed to working with the federal government and partners across the research community to develop a framework that is effective, coherent and conducive to scientific excellence.

Thank you.

[*English*]

**The Chair:** Thank you.

With that, we will now start our first round of questioning of six minutes each. We will begin with MP Baldinelli.

Please go ahead. You will have six minutes.

**Tony Baldinelli (Niagara Falls—Niagara-on-the-Lake, CPC):** Thank you, Madam Chair.

Thank you to our witnesses for being here today.

Ms. Nemer, it's wonderful to have you join us once again. Thank you for always being available when this committee requests.

Today, we're beginning a new study on the risks and threats to Canadian science and research. We know how important science and research is to Canada's economic growth and prosperity. It's at the core of everything we do to advance our lives and to improve life and our living standards. I think you said it best, research is part of our national identity and national security. That's why it's also at risk and facing threats from foreign espionage and foreign interference from foreign states who want to try to infiltrate our research system, copy what we do and steal Canadian talent and IP to the benefit of foreign state interests over Canada's state interests.

It was rather timely today that the Prime Minister announced a plan for a stronger Canada, the first national security strategy in over 20 years. Surprisingly, it's only 13 pages long. In fact, the Prime Minister's press release is only four pages. It's nearly one-third the length of the entire strategy. The word “science” does not appear in that strategy document, not once. Does that concern you?

● (1555)

**Mona Nemer:** It really doesn't concern me, and I'll tell you why. This is because it is understood that in every one of these boxes, science and technology—because we can put them both together—is assumed there. When we talk about pharmaceuticals, biotech, food security, critical minerals and energy—you name it—it's assumed that it's there.

**Tony Baldinelli:** Including the research component...?

**Mona Nemer:** That's the challenge.

**Tony Baldinelli:** It's the Canadian research component.

**Mona Nemer:** Yes, that is the challenge of making sure that we're looking at the entire pipeline from the discovery.... If we want to be sovereign, it has to be our technologies and our IP that is produced in Canada.

**Tony Baldinelli:** I fully agree.

**Mona Nemer:** We have to make sure, in the implementation of the strategy, that this is not lost on anyone.

**Tony Baldinelli:** Given your role as chief science adviser for Canada, did the Government of Canada consult your office for input and feedback on this strategy document?

**Mona Nemer:** It was not for the entire strategy, but for some of the boxes—yes. I've been quite involved on the pharmaceutical side. I've spoken about the importance of food security. Yes, I can say that I have been consulted.

**Tony Baldinelli:** Again, thank you for being here.

I'm going to go to Ms. McCuaig-Johnston.

Thank you for appearing before our committee once again.

I want to go back to some of the testimony that you provided to us in April 2026. You mentioned that any firm or individual in China must spy for Beijing if requested. Does this policy extend to Chinese nationals living abroad or in other countries like Canada?

**Margaret McCuaig-Johnston:** That's not an exactly clear question.

You're referring to the National Intelligence Law, section 7. For Chinese nationals in Canada, who are not Canadian, yes, it would certainly extend to them. For those who are Canadian, the Chinese state tries to, in a very friendly way, court them to help the motherland. Very often that's where you see things like information being diverted to Beijing or research security compromised. It may be a Chinese-Canadian who is just trying to help the motherland.

I've seen this kind of thing happen where the Chinese officials and the science counsellor at the embassy are very genteel, very gracious people and are lovely to deal with. This is one of their tasks: to get Chinese nationals living in Canada to help them out.

**Tony Baldinelli:** Would that be one of the reasons that...? If we go back to the Globe and Mail article, it details Claire Zhang as the Canadian intern charged with espionage at NATO headquarters in Belgium last April. In an article in The Globe and Mail, you're quoted as saying that it is possible that Ms. Zhang, who had “been in numerous and increasingly responsible positions already, did not get the screening depth that she might otherwise have had.” You went on to say, the article states, that since the Prime Minister took office, Canada's security agencies “have been spread thin with budget cuts and many demands to screen new employees into sensitive positions”.

Is it a failure of our security screening processes in addition to some of these Chinese government laws that exist and take advantage of situations in place in Canada?

● (1600)

**Margaret McCuaig-Johnston:** It's a combination of those two things. Actually, I have the national security strategy in front of me. Right at the end, it talks about the importance of screening, so they've taken that on board for sure. It also goes to the point that Dr. Nemer made about the need to double down on securing our research.

There's a tactic that the Chinese use, which is to move into increasingly central and strategic positions in any organization. You can see it over time once you look at it retrospectively. We had the case of Haiyan Zhang back in the early 2000s. I knew her when she was a journalist at Xinhua. She ended up at Industry Canada and then in the cabinet room. I saw her in the cabinet room. I thought, holy, what's she doing there? It turns out she'd gotten a job in the Privy Council Office. She was fired from there when CSIS did the full workup on her and realized she shouldn't have been there at all.

These security clearances and screenings are really important.

**The Chair:** Thank you.

We will now proceed to MP Noormohamed for six minutes.

Please go ahead.

**Taleeb Noormohamed (Vancouver Granville, Lib.):** Thank you, Madam Chair.

Thank you to our witnesses.

Dr. Nemer, it's good to see you, as always. Thank you for always spending so much time with us and for being so generous about it.

One thing we've talked about in the past, which I want to talk about again, concerns the risks to research in this country from the proliferation of an anti-science narrative, the questioning of science and the politicization of research outcomes and research conducted by scientists as somehow being to the advantage of or in support of government positions.

When we start to think about what it does when we denigrate science, when we denigrate scientists and when, particularly, politicians start to take on science with no fact and no evidence, using simply the power of social media to attack scientists, what does it do to the research environment in any country? What has the impact been as a threat to science and research in this country already?

**Mona Nemer:** I'll say a few words. My colleagues spoke to this. I think it's actually dangerous. I don't think that word is too big when anti-science spreads. Data shows that people who doubt science actually doubt institutions in general. Then there's a problem not just for science but also for democracy and social cohesion.

I agree that our posture should be to leave politics and science separate. I think science ought to continue to do its thing. It is hoped that decision-makers will use scientific evidence in addition to the other things they need to use, such as legal and others, but the mix between politics and science is not good. Even when it's good for science, it ends up being not so good, because then you politicize it and the next time around that will suffer.

**Taleeb Noormohamed:** Are there examples you can see of where people have been reluctant to either seek particular types of funding or put themselves out there as experts, knowing that some of this is coming? Is that something you're seeing?

Maybe I'll go to you on this one, Dr. Jacobs. Are you seeing this trend, or is this something that concerns you at all?

**Dr. Les Jacobs:** Yes. I'll give you a specific example.

We have a faculty member, Barbara Perry, who has been given the Order of Canada and who specializes in hate speech. The amount of viral criticism she gets in social media when she does public interviews is really quite astonishing, even though she has this idea of being pretty apolitical about the analysis. That's one clear example, but there are many others.

● (1605)

**Taleeb Noormohamed:** One of the things that we should all worry about if we're concerned about science and we're concerned about the quality of research and the ability of researchers to feel like they can do their work is exactly that type of concern for the safety of researchers.

How would you suggest that we recalibrate the conversation in this country? Dr. Nemer made a very good point about the complete depoliticization of science, but how do we start to tell the public and get in front of the public around the importance of not believing things that are perhaps made up? How do you differentiate truth from fiction?

When it comes to data and research, how do we encourage people to spend more of their time and more of their effort understanding the underlying facts rather than what a politician perhaps puts out on social media?

**Dr. Les Jacobs:** To a certain extent, we've often taken for granted, in Canada, social licence and public confidence in public institutions as a sort of given. To a certain extent, part of my comments about the comparison.... Where I do most of my research is in the justice system and the courts. In both cases, there are major public institutions where public confidence has been decreased or is on a decline. It requires a very intentional effort to try to rebuild that confidence.

Given that most people here in this room have a pretty good understanding about how university research operates, there is still a large part of the public that has less of an understanding about how that works. My inclination is that you really want to build public participation and involve the public so that they can see research up front.

**Taleeb Noormohamed:** I'll come back on the next round.

Thank you.

**The Chair:** With that, we will go to Mr. Blanchette-Joncas for six minutes.

Please go ahead.

[*Translation*]

**Maxime Blanchette-Joncas (Rimouski-Neigette—Mitis—Matapédia—Les Basques, BQ):** Thank you, Madam Chair.

I would like to welcome the witnesses who are with us today.

My first question is for you, Madam Chief Science Advisor of Canada. In your view, does the federal government still make decisions grounded in science today?

**Mona Nemer:** By “decisions”, do you mean passing laws?

**Maxime Blanchette-Joncas:** I'm talking about major issues in general.

Is science still at the heart of major decisions made by the current Canadian government?

**Mona Nemer:** It is difficult to answer that question in purely abstract terms because scientific evidence is clearly only one part of a broader decision-making process that also involves legal, socio-economic and, of course, ideological considerations. Ultimately, it is about assessing risks and weighing the political choices to be made in a democracy. So, yes, I believe that scientific evidence is part of the discussion.

Whether that is the deciding factor is not always clear.

**Maxime Blanchette-Joncas:** Thank you.

In its latest budget, the government announced budget cuts across several departments, including the department responsible for scientific research. These cuts totalled 2%.

Were there any cuts to the office of the chief science adviser?

**Mona Nemer:** Yes. Unfortunately, we have faced the same budget cuts as other scientific organizations.

**Maxime Blanchette-Joncas:** When the government reduces the budget and resources of the office of the chief science adviser, do you believe that sends a message to the public about the importance, or lack thereof, it places on science?

**Mona Nemer:** The approach taken was to apply budget reductions across the board on the grounds that it was the fairest way to proceed. If you are asking whether I would have taken the same approach, I cannot say with certainty that I would have. More strategic reductions may be more complicated to implement.

However, it is important to note that while most sectors faced budget reductions of about 15%, the science and research sector saw its funding reduced by only 2%. So that is some consolation. It is the only sector, apart from defence, where the cuts were significantly smaller than in other sectors.

● (1610)

**Maxime Blanchette-Joncas:** All right. I note that there have been cuts.

I would now like to turn to the subject of the government's major decisions. The government recently introduced Bill C-39, building Canada strong act and amendments to the Impact Assessment Act, legislation you know very well and have been working to strengthen over the last five years. The government would be able to designate priority areas of national interest so that the Impact Assessment Act can be bypassed or amended.

I would like to hear your comments on this. Were you consulted on the amendment to the Impact Assessment Act for major projects of national interest?

**Mona Nemer:** I am not consulted when legislation is being drafted, that's for sure.

I'm going to make a few comments anyway.

First, I think we all want to be able to build things and move faster, but that doesn't preclude conducting a rigorous scientific analysis of all projects. I hope we'll manage to change this sort of dogma that science is a hindrance to progress. Science doesn't prevent us from carrying out a project; it informs us about the choices we make and the measures we take to mitigate risk. I think there's always important scientific evidence to consider. Even when we decide to move forward anyway, I think we need to be very careful when discussing certain irreversible damage. If there is evidence or if people raise this possibility, I believe it warrants serious study because what is irreversible is irreversible. Science also offers us potential solutions. It might involve changing course here or there. Science doesn't say yes or no. Science is always there to help us.

Second, when we have projects, large or small, we aren't in the habit of learning from them. Take the COVID-19 projects, for example. It's about taking a scientific approach, that is, deciding to collect certain data and conduct specific follow-ups. Even if it doesn't help with this particular project, it will help with other projects.

**Maxime Blanchette-Joncas:** Do you think your expertise should have been called upon, particularly to amend certain bills, such as Bill C-5, or Bill C-39, which I just mentioned as an example?

**Mona Nemer:** Again, I have to say that I'm not very involved in the drafting of legislation.

It is my hope that, as the law is implemented, I will still be able to help in certain sectors, as I said, so that we can at least ensure that a scientific approach is taken for these projects.

**Maxime Blanchette-Joncas:** Okay.

I want to come back to something else. You worked on scientific integrity. Your report indicates that, as of 2025, 21 of the 25 relevant departments and agencies had not yet implemented their plans to assess the effectiveness of their scientific integrity policies.

Do you know how many departments and agencies have addressed this shortcoming in the meantime?

**Mona Nemer:** There has not been much progress. The good news is that all 25 organizations do have a science policy and a plan, but we have to ask ourselves whether it's working. How is all of this being monitored? That's still a topic of ongoing discussion.

I should also add that we have updated our scientific integrity plan to include research security and the use of artificial intelligence.

**Maxime Blanchette-Joncas:** Thank you.

[*English*]

**The Chair:** Thank you. The time is up.

We will start our second round of questioning with MP Ho for five minutes.

Please go ahead.

**Vincent Ho (Richmond Hill South, CPC):** Thank you, Madam Chair.

My questions are for Ms. McCuaig-Johnston.

In the last federal budget, the Liberal government announced $1.7 billion in taxpayer money to recruit foreign researchers to come to Canada, including in AI, quantum computing, biotechnology and defence technologies. You previously served as executive VP of NSERC, so you understand how federal research funding is awarded.

Given that Canadian citizenship is not required for these foreign researcher recruits, how confident are you that the safeguards can identify applicants concealing foreign state funding, obligations or affiliations before they receive federal money and access to Canadian research facilities?

**Margaret McCuaig-Johnston:** If I'm not mistaken, that initiative is primarily focused on the U.S. because there are many researchers there who are interested in coming to Canada now, for various reasons. I'm not particularly concerned about trying to suss out their motivations. I think, as Dr. Nemer says, it's important that we not add additional layers but that instead there be sound practices and management of risks all along the process of identifying people.

I know that the system that's been put in place by the tri-agencies is comprehensive now, and I'm quite comfortable. In fact, as I've said before, I think it's a gold standard for the world.

Where I think we need to do some work is on the workarounds that some professors have chosen in certain sensitive technology areas, where they set up a company just off-site from the university and work there.

● (1615)

**Vincent Ho:** If those checks fail, could Canadian research infrastructure and Canadian taxpayers end up financing research that serves a foreign government's strategic interests by using our grants, our laboratories or our equipment?

**Margaret McCuaig-Johnston:** If the researcher returns to their original country, potentially, but I think the objective there is to try to get them to stay in Canada if we can. This is a very attractive program, and I think people in the U.S. are looking at it very seriously.

**Vincent Ho:** Based on your experience at NSERC, what typically needs to be verified before the funding is granted as it relates to interference? I want to make sure the government isn't inadvertently funding foreign researchers or even Canadian researchers who are tied to foreign actors or affiliated with a foreign government's interests.

**Margaret McCuaig-Johnston:** That's an interesting question.

Up until now, my understanding has been that, in the grant process, the screening of the grants is where you get the checks and balances of risk, whereas what the member of the committee, MP Ho, is identifying is incoming scholars and whether they have associations with DARPA or other agencies. Certainly, if they had any such connections in China, I would be raising big red flags all over the place, so to speak.

I think that's something with this program that they would want to take a special look at.

**Vincent Ho:** There is a possibility that researchers.... Let's say they're not coming from the United States. They're coming from countries that may be hostile to Canada and may get access to this funding with the current procedures we have in place.

**Margaret McCuaig-Johnston:** I think the screening process that the granting councils use now is pretty adept at looking for—China is the one that I know—affiliations with military universities and research institutes. Also, I think that can certainly be applied in this case in the screening of any professors from China who might come under such a program.

**The Chair:** Thank you.

We will now proceed to MP Rana for five minutes.

**Aslam Rana (Hamilton Centre, Lib.):** Thank you, Madam Chair.

Thank you to all the witnesses for your valuable time.

Dr. Jacobs, not every institution has the same capacity to manage research security. This month, the government announced nearly $25 million to the research support fund for research security at 51 institutions.

Where does that kind of support make the biggest difference for Ontario Tech University?

**Dr. Les Jacobs:** There's been a sea change that has happened in Canadian universities. Ontario Tech has been among the smaller universities at the leading edge of research security. To address the nuts-and-bolts question about how this works, I'll say that in our particular case we have two full-time staff who work for me and review virtually all of our research programs—certainly all of our funded research programs—against standards. Dr. Nemer would know that this is quite new. Whenever we have research partners proposed, a standard thing I do is send their files to our research security team so that they can do those kinds of reviews.

It is an underfunded mandate in the sense that you can't really have a robust research enterprise without this now. I would issue a bit of caution. In the U.S., research security at universities is highly tied to the national identity of researchers. Part of the reason Canada is a gold standard is that we haven't gone down that path. I would be cautious about thinking that the birthplace or origin of a particular researcher is a reason to treat them as more suspect. That's wearing my human rights hat.

● (1620)

**Aslam Rana:** Thank you.

On the NATO DIANA test centres, our allies' work in innovation is being done on the same campuses as regular academic research. From what you have seen, how does a university keep that work properly protected without walling it off from the rest of the research community?

**Dr. Les Jacobs:** In our particular case, we have a couple of research facilities, including a huge research facility that does a lot of defence work. It is a highly secure facility that controls entrance access. People enter it and sign NDAs, all of those kinds of measures, which are quite new. The central point is that it actually involves an investment, and it's a bit of a pay-to-play situation.

We understand that if we are working closely with leading defence industry partners, then having a high level of security is important. Indeed, part of the initiative behind the first round of DISHs was to really bring facilities like ours up to secret standards.

**Aslam Rana:** What does the security clearance process entail for researchers and personnel at the DIANA test centre?

**Dr. Les Jacobs:** That's a little bit trickier. If they're among the PIs or collaborators on the funded projects, they will go through the security review. All of our industry partners will go through that kind of review. That tends to be how it operates in practice.

**Aslam Rana:** What measures has Ontario Tech implemented to ensure research security?

**Dr. Les Jacobs:** First and foremost is complying with the tri-council requirements, which we apply not just to the tri-council research but also to all of our research activity. Keep in mind that a significant amount of research activity in Canadian universities is now tied directly to industry-funded research as opposed to tri-council research.

**The Chair:** Thank you. The time is up for MP Rana.

We will proceed to MP Blanchette-Joncas for two and a half minutes.

Please go ahead.

[*Translation*]

**Maxime Blanchette-Joncas:** Ms. Nemer, I want to come back to a very important current issue: Bill C-31, which, among other things, would eliminate the re-evaluation of pesticides. Normally, every 15 years, Health Canada conducts an independent scientific review to determine whether any pesticides have become hazardous and should be prohibited or completely banned. This follows Bill C-30, which, among other things, allows for the reintroduction of certain pesticides for food security or economic reasons.

I would like to know if you were consulted about these legislative changes.

● (1625)

**Mona Nemer:** No, I wasn't consulted, because this is really a matter for Environment and Climate Change Canada and Health Canada. You know, there are advisers in those departments. Not every issue comes across my desk. However, I believe it's very important to continue using science and scientific data to make changes, whether that means banning things that are currently allowed or reintroducing things that were allowed before.

**Maxime Blanchette-Joncas:** There does seem to be some public opposition, however. A recent poll conducted for Équiterre found that 69% of Quebeckers oppose a measure to reintroduce pesticides that were banned because they were deemed hazardous.

As you are no doubt aware, the federal government wants to build closer ties with the European Union. However, Canada currently uses 121 pesticides that are banned in the European Union. From a scientific standpoint, I'm trying to benefit from your expertise. How can we build closer ties with them? We want to increase trade with them, but they won't even accept the agricultural products we produce here because we don't meet their standards, especially when it comes to the production of certain foods.

**Mona Nemer:** I'm aware that some pesticides are banned there. In fact, some food additives that we use are banned there. I think we might need to ask ourselves: Why is it not acceptable there, but is it acceptable here?

I would like to say a few words about agriculture and food security. We might think that we don't have to change and that this is the only way to continue producing the same amounts of food, but this is where, once again, research, science, and technology are truly remarkable, especially in agriculture. There are ways to practise precision agriculture and know exactly how to manage things without having to use chemicals, even if they're harmless. Therefore—

[*English*]

**The Chair:** Thank you. The time is up.

We will now proceed to MP Cody for five minutes.

Please, go ahead, MP Cody.

**Connie Cody (Cambridge, CPC):** Thank you.

Through you, Chair, I want to thank the witnesses for coming today.

I'd like to direct my first question to Dr. Nemer.

Thank you for coming. You told the committee you consulted with the government on its national security strategy. Specifically, who did you consult with?

**Mona Nemer:** I've been consulted extensively for, I would say, the past at least two years, if not more, on health security, biosecurity. These have been conversations with the Minister of ISED, with the Minister of Health, with the Office of the Prime Minister and with senior public servants as well. There are many different decision-makers in the apparatus.

**Connie Cody:** You said these consultations took place over the last couple of years. Did you do it by providing documents in writing, or was it in person, virtual or by phone?

**Mona Nemer:** I want to make sure that there's no misunderstanding here.

At the time when we were talking about health security, biosecurity, etc., we were not talking about a national security approach. I don't want this to be mistaken with the national security. However, the element that was being discussed is now part of the national security agenda.

Do I have documents? I probably have some documents, some recommendations, over the years about the importance. I've made it public, actually.

**Connie Cody:** Could you table those and share them with us?

**Mona Nemer:** Certainly—

**Connie Cody:** I was also wondering—

● (1630)

**Mona Nemer:** To the extent possible, as you know....

**Connie Cody:** In the national security strategy document, in the message from the Prime Minister, since you've had consultations with a lot of those involved.... I'm curious. It says, “We will collect actionable intelligence.”

Could you explain that to me?

**Mona Nemer:** I'm sorry, but I haven't had a chance to read the entire thing, so I'm not sure that I can explain this to you. I don't want to say things out of context.

**Connie Cody:** Would you have an idea of what “actionable intelligence” would reference?

**Mona Nemer:** As you know, I'm not an intelligence expert. I just don't want to get anywhere close to misleading.

**Connie Cody:** That's no problem.

I would like to continue and ask a question of Ms. McCuaig-Johnston, if I might.

Canadians were told by the Prime Minister that China represented the largest geopolitical threat facing Canada. Would you agree or disagree with that statement?

**Margaret McCuaig-Johnston:** I completely agree.

**Connie Cody:** You said that you looked at the national security strategy. On page 5, when it talks about the Arctic and Americas, it says, “we will exercise Canada's sovereignty through a robust, permanent presence in our Arctic, and we will collaborate closely on security and other issues with like-minded Arctic countries.”

I know that you raised concerns about the Chinese research vessels operating in the Arctic. Would you consider China a like-minded Arctic country?

**Margaret McCuaig-Johnston:** No, I wouldn't. I think those words were very carefully chosen. I looked at that section carefully, and I'm very pleased that parliamentarians are doing the same. I think Arctic countries are those that are members of the Arctic Council, and they are like-minded. They share our values. China is neither of those things. It tries to present itself as near Arctic, but that's like saying Italy is near Arctic. What I'm saying is that I think those words were chosen to exclude China.

I think it is interesting that the words “China” and “Russia” do not appear in the strategy. I sincerely hope that they appear in all the planning and implementation documents that go along with the strategy. I think it's an indication that the government doesn't seem to want to mention China in a negative light in any way whatsoever. We've seen that multiple times when ministers are asked obvious questions about China and the risks, and they won't say anything about it at all.

We have an Arctic defence strategy that made no mention of China, but a lot about “Russia, Russia, Russia,” to quote somebody else.

**The Chair:** Thank you very much.

We will now go to MP Gladu for five minutes.

Please go ahead, and welcome to the committee.

**Marilyn Gladu (Sarnia—Lambton—Bkejwanong, Lib.):** Thank you, Chair. It is a pleasure to be back here at the committee.

Thank you to the witnesses for appearing today.

I want to talk to all of the universities on the subject of open science and trying to protect our intellectual property. Do you think that there is a risk there? If so, what should we do about it?

Let's start with Dr. Jacobs.

**Dr. Les Jacobs:** Thank you. It's a great question, and it really does go to part of the tension between having public universities in Canada that have strived to be very open and inclusive, and building research programs that, in turn, are open.

The trick, the challenge, is that as we increasingly focus on concerns about commercialization, intellectual property and intangible assets, some of the commitment to open science may well be seen as an obstacle to that. That's not completely the case because, as many of you know, there are many very successful companies with open-source software that have clearly commercialized on it in huge ways.

● (1635)

**Marilyn Gladu:** I have limited time, so let's go on.

[*Translation*]

I have the same question for you, Mr. Sarra-Bournet.

**Christian Sarra-Bournet:** Thank you for the question.

[*English*]

If you don't mind, I'll probably just focus on the quantum sector, but I think it's going to be in general, in terms of all the different strategic domains that are in front of national security.

Today, if I were to take a picture, I would say that the guidelines and the risk assessment are fine for open science and research collaboration internationally. That said, I think there's a nuance to it. The development of technology is going very fast, and the national strategies around the world are moving as well as their targets, depending on what they consider open science and fundamental research versus applied and commercialization.

You can see sometimes that there are some nationalistic approaches to some of those strategies, which means that we need to be careful about other players as well or partners who are partners today in terms of import and export rules, as well as respecting the law of IP, and also in terms of standard definitions.

In six months time, I might have a different answer. My answer for today would be, yes, let's keep ourselves in an agile mindset to make sure that we protect the research of Canadian researchers.

**Marilyn Gladu:** That's excellent. Thank you.

Margaret McCuaig-Johnston, can you weigh in on this question?

**Margaret McCuaig-Johnston:** It's a very important question.

I would say basic science lends itself well to an open science approach, but as we turn to Canadian strategic industries and very sensitive fields like photonics, genomics, quantum computing and nanotechnology, these are areas that really need to be protected. I think we should be more protective of them than we are now, and there are additional things that can be done to help keep our sovereign research safe.

**Marilyn Gladu:** Thank you.

One of the other risks we are going to face is losing talent. Dr. Nemer mentioned that the loss of talent is a risk, and we can lose it in a couple of ways. One way is if we can't attract talented graduates. The last time I was at this committee, we heard that they hadn't had a raise in salary for 20 years. I'm interested in an update on that situation. Of course, on the other hand, talent can leak to the U.S.

I'll open it up, starting with Dr. Jacobs again.

**Dr. Les Jacobs:** As I mentioned in my comments, there really has been a historic investment in graduate students in the last two years, and there's no way to—

**Marilyn Gladu:** That's excellent. This is very good news.

Mr. Sarra-Bournet—

**Mona Nemer:** Not quite.... May I answer?

There are two ways that graduate and postgraduate students are paid. They either receive a direct fellowship or are paid from grants. The government has actually been quite generous with the fellowships that are given directly. However, those who are paid from the grants need an increase now to match the others. Otherwise, it's unfair.

This is where we have pressure right now, because if we increase this, there isn't money to pay for the supplies for them to do the work with.

**The Chair:** Thank you.

The time is up.

**Marilyn Gladu:** That's too bad.

Thanks.

**The Chair:** We will now start our next round, with MP Baldinelli for five minutes.

Please go ahead.

**Tony Baldinelli:** Thank you, Madam Chair.

Quickly, I want to follow up on one of my colleague's questions.

Ms. McCuaig-Johnston, you spoke earlier about some of your concerns about some of the research here in Canada. Do you believe Canada's research ecosystem is at risk or under threat from foreign interests?

**Margaret McCuaig-Johnston:** I think it's targeted by foreign interests, and I think there's been a tremendous amount of progress to protect it.

Having said that, I'm very concerned about the workarounds some professors are using. When I say that, I'm using.... For example, Chinese companies, like Huawei, advise professors that they don't need to be concerned about the screening of their research. They can just set up a separate company and work with Huawei—Huawei will help them do that—and they can use their students working through that separate company. I am somewhat concerned about the amount of movement between Huawei and professorships or people teaching at universities. It seems to be a pretty fluid situation.

The reason for my concern—and I've seen this over many years, going back to when I was helping China develop its R and D capacity, when I was in the government—is that it's a one-way street. Our researchers, for the most part, do not speak Mandarin or read Mandarin characters. The Chinese, as I indicated, have an indigenous innovation policy that is all about acquiring technology and science from abroad.

It's a culture. It's like a vacuum's sucking sound, and we need to protect ourselves from that.

● (1640)

**Tony Baldinelli:** To build on some of your earlier comments, in your opening remarks you talked about research system controls. You believed they were robust, but now you're talking about some of the issues, or the workarounds, as you say.

Would you also have concerns with regard to the vetting processes that are in place, the time they take and the economic constraints that have been placed on government agencies to undertake these vetting processes so that by the time they take place, some incidents could have occurred?

I'd like to get your thoughts on that.

**Margaret McCuaig-Johnston:** The national security strategy talks about stronger enforcement tools and strengthening national security information sharing with research institutions. There's been a lot of sharing. A lot of universities have taken these things on board and have really made them, as Dr. Nemer said, part of their sound practices in managing risks.

Others haven't, and that's unfair. It means it's not a level playing field among the universities when some universities play fast and loose with relationships with companies like BGI and its own genomic research. That's a very sensitive area. They take the genomic data—not personal information, like names and addresses—of a person and they send it to China to be processed. That's going on now.

**Tony Baldinelli:** If I could just follow up, given the government's expenditure control restraint program that's in place, seeking expenditure reductions for government departments, I worry, also, in terms of the vetting process.

For example, there's the case of Dennis Lu that was here in the media over the summertime. This goes back 20 years when CSIS first went to Natural Resources Canada and expressed some concerns then. One gentleman who was in security at NRC talked about the issues where there were severe, I would say, resource constraints in terms of their ability to conduct anything more than traditional risk investigations at that point in time.

That should be a concern to all of us. If this has been taking place over a great period of time and with some of the procedures that are in place, does that not give you pause for concern?

**Margaret McCuaig-Johnston:** At that period of time there was a big focus on anti-terrorism, so CSIS was diverted into that. I think we have a renewed appreciation now of the importance of research security. I think the NRCan, and the Hydro-Québec case as well, show that it's actually our IT people who identified these lapses, where you'd get data being sent to China overnight or on the weekend from government labs.

**Tony Baldinelli:** That's who it was with. He was with the IT department at Natural Resources Canada when those concerns were identified.

**Margaret McCuaig-Johnston:** Exactly. Those people deserve a tremendous amount of credit for what they're doing.

**The Chair:** Thank you.

We will proceed to MP Rana for five minutes.

Please go ahead.

**Aslam Rana:** Thank you, Madam Chair.

Dr. Nemer, the Government of Canada-universities working group has been meeting since 2018. From where you sit, what has that ongoing contact between the government and the universities made possible, that set of rules, which on its own it couldn't?

**Mona Nemer:** Yes, that's actually a great question, because you need to have the theoretical and the practical at the same time.

**Aslam Rana:** Yes.

● (1645)

**Mona Nemer:** The more constraints we put on researchers, the more runaround they're going to do.

I think that our—and it's been said—system has worked out really nicely, because from the get-go there was a mutual understanding, number one, of what we were trying to achieve, and then number two, of what was feasible without putting undue pressure on the researcher.

It became a gold standard, I have to say, and in many ways, it has allowed us, in our international collaborations with the European Union, with Horizon Europe, to have access to calls on sensitive technologies, because we could provide the assurance that our research security and standards were excellent.

**Aslam Rana:** Thank you.

Canadian science depends on international collaboration. The vast majority of it is the open work we want more of. How do we make sure early-career researchers and international students still see Canada as a welcoming place to do science while we take these risks seriously?

**Mona Nemer:** I think we can walk and chew gum. We may have to tighten certain security.

I just want to remind us all that even in the United States.... Actually, in the United States, 80% of the research, including the dual use, happens in universities without any extra security. They have told us this. Where it becomes important is when we start the applications, when we start into the later technology levels.

Our institutions can still welcome international people and be a safe place. I think we have to accept that in certain areas we may not want collaborations at all or really restricted ones. We may also have to accept that in certain areas we're not going to have international students, but I would say that these would be very minor areas right now.

I would also add that right now Canada is very positively viewed in the world. I would invite us all to take advantage of it and welcome the most talent that we can.

**Aslam Rana:** Thank you very much.

How does the office of the chief science adviser work with researchers and institutions to balance open science with legitimate security considerations?

**Mona Nemer:** Thank you again for this question.

Earlier in the day, I was at an international meeting at the University of Ottawa on open science. Research security actually goes hand in hand with open science. If you don't have research security, anybody can play with your data and can manipulate the data so that the data is not worth much. It's in the best interest of open science to have research security.

Open science, including the UNESCO guidelines and including our own guidelines here in Canada, has exceptions where things will not be made open, where we will not talk about them and where we will not publish them. They can go hand in hand. It's not a problem at all.

**Aslam Rana:** What additional measures or investments would most strengthen Canada's ability to protect sensitive research and intellectual property?

**Mona Nemer:** Again, this is an excellent question.

For intellectual property, I think we have to appreciate that protecting intellectual property costs money. A lot of it comes from either small companies or universities. They simply don't have the resources to do this because it's not a one-shot deal. Every year, you have to maintain the patent. I think this is a very important area to look into what, practically, we need to do.

In the other area, I would say—we heard from some of our colleagues—that the reason researchers collaborate is often that they need either another technology or more money. If we just make sure that we're funding the researcher appropriately, there is less of an impetus for them to be going left and right. Also, in terms of international collaboration, we can also provide funds for them to collaborate with specific partners.

I'll stop there.

**The Chair:** We will now proceed to MP Blanchette-Joncas for two and a half minutes.

[*Translation*]

**Maxime Blanchette-Joncas:** Mr. Sarra-Bournet, can you tell us what you believe is currently the main vulnerability that could allow a foreign actor to gain access, for example, to the strategic expertise being developed in Quebec or at the Institut quantique at Université de Sherbrooke?

● (1650)

**Christian Sarra-Bournet:** I think the main flaw or vulnerability is something we often hear about. I'm sorry to say this, but it's money. More specifically, in our sector, the quantum sector, we in Canada successfully create many spinoff companies from universities. It's incredible how many such companies there are. Thanks to the expertise found in universities, we're still able to create start-ups and spinoffs. I believe there's sufficient investment capital available for pre-seed and seed funding. However, the real problem inevitably lies in growth capital.

What we're seeing in our ecosystem are companies that reach the growth or capital-raising phase and have to look abroad. That's where the vulnerability lies, because if they don't have the capital to grow here, it can lead to a brain drain or the loss of intellectual property. There are, however, some very clear examples right here already. Nord Quantique, for example, was approached by U.S. states that offered it direct investments without taking an equity stake. We need to address this to ensure that we have growth capital for this type of company.

Thanks to hard work, the excellence of research at our Canadian universities, and our ability to create these companies, we rank second in the world in terms of the number of start-ups per capita in the quantum field, but it is really in terms of growth capital that we are vulnerable.

**Maxime Blanchette-Joncas:** To come back to the vulnerability you just very clearly pointed out, if I understand correctly, insufficient public funding can force researchers, particularly research teams, to accept partnership terms they would not have accepted if funding had been sufficient. Is that correct?

**Christian Sarra-Bournet:** That is another reality that we really need to address. We need to ensure that researchers receive sufficient funding to be able to recruit the best talent and have the resources they need to conduct their research. In some cases, some researchers will look abroad to form partnerships.

I would still tend to say that the new rules regarding security guidelines and the teams now being set up at universities, even though this is a new development and one might argue that it adds to the burden, constitute a chain of protection for intellectual property and help secure research. It is the weakest link that will be targeted for vulnerabilities. The fact that we have made these investments in universities, combined with the communication we have with the federal government and among institutions, and I encourage more of this communication, means that we have succeeded in creating a much stronger safety net than before, ultimately by investing in universities in a decentralized manner.

[*English*]

**The Chair:** Thank you.

We will now proceed to MP Ho for five minutes, and we will end this panel with MP Noormohamed after that, for five minutes.

Go ahead, MP Ho.

**Vincent Ho:** Thank you, Madam Chair.

My questions are for Dr. Les Jacobs. In your opening statement, you mentioned that public trust in universities has been eroding in recent years. I want to examine whether universities' own policies might be contributing to that problem. Ontario Tech University's website names you on the steering committee responsible for implementing its DEI agenda. Is that correct?

**Dr. Les Jacobs:** Yes, basically.

**Vincent Ho:** Which recruitment requirements did you personally help develop or approve?

**Dr. Les Jacobs:** Probably, first and foremost, the Canada research chairs program that we oversee.

**Vincent Ho:** The DEI policies surrounding the Canada research chairs program...?

**Dr. Les Jacobs:** We don't call it the DEI policy, but the equity....

**Vincent Ho:** Do you personally support restricting eligibility for publicly funded research positions, including the Canada research chairs, on the basis of gender identity?

**Dr. Les Jacobs:** The short answer is yes, and not in every instance. The basic commitment is.... I'm a human rights expert, and—

**Vincent Ho:** You do want to restrict people's opportunities in finding the best researcher on the basis of gender identity. Okay, I just want to make sure I heard that correctly.

I want to give a concrete example. Ontario Tech's August 2025 posting for a Canada research chair position in advanced nuclear engineering restricted eligibility to women and other specific gender equity groups. A qualified applicant outside those categories could not be considered, regardless of the strength of their scientific record. How do you feel about that?

**Dr. Les Jacobs:** It's significant that at the same time, we were searching for a research excellence chair who was not a targeted hire. My feeling is that the candidate we chose is outstanding, and—

● (1655)

**Vincent Ho:** I'm sure you found an outstanding candidate. However, what would you say to the applicant who does not fall under that identity group about why they were denied the opportunity to compete, simply because they didn't fit in?

**Dr. Les Jacobs:** The short answer to some of that question is that all of these are intensely competitive exercises. When the standard is research excellence—

**Vincent Ho:** I just want to be clear: I'm not questioning anyone's qualifications. I want to ask about why other qualified candidates are excluded when you really want to be casting the net as widely as possible.

I'm going to bring in another example. Your university's January 2026 position had a job posting for a research chair in artificial intelligence and education. It imposed a similar restriction that only gender equity-seeking groups could apply. Can you understand why Canadians might lose confidence in publicly funded institutions when they see opportunities closed to otherwise qualified applicants because of their identity?

**Dr. Les Jacobs:** I understand exactly the concerns. Part of my general advice is to dig deeper about what the underlying rationales are for those practices. The short answer is to use a holistic approach.

**Vincent Ho:** Again, I'm not questioning anyone's qualifications. Someone who may have trained in a discipline their whole life, who might be equally or even more qualified, is now denied the opportunity to contribute to Canada's research ecosystem. Have you examined whether these restrictions contribute to declining public trust?

**Dr. Les Jacobs:** No.

**Vincent Ho:** I'm going to go back to the nuclear engineering application that I spoke about earlier. It also required a statement describing current and planned contributions to DEI. Could an applicant openly oppose identity-restricted hiring and still receive full consideration?

**Dr. Les Jacobs:** Yes.

**Vincent Ho:** What safeguards prevent the DEI statement from becoming a test of agreement with the university's preferred policies?

**Dr. Les Jacobs:** I'm sorry, but can you clarify that question?

**Vincent Ho:** What safeguards prevent the DEI statement from becoming a test of agreement with the university's preferred policies?

**Dr. Les Jacobs:** I think it is basic procedural fairness in the process.

**Vincent Ho:** Would the DEI statement contribute to the scoring criteria?

**Dr. Les Jacobs:** No, but it would be—

**Vincent Ho:** Why ask it, then, if you won't respect it?

**Dr. Les Jacobs:** No, but there's a distinction between the scoring—

**Vincent Ho:** If the DEI statement doesn't affect the scoring criteria, then why ask it?

**Dr. Les Jacobs:** There's a holistic assessment, which is that, typically, academic hirings are not point-score based. They're actually holistic hirings. In other words, it's a form of—

**Vincent Ho:** Their DEI statement does matter, then.

**The Chair:** Thank you. Time is up.

We will end this panel with MP Noormohamed for five minutes.

Please go ahead.

**Taleeb Noormohamed:** Thank you, Madam Chair.

I'm going to start with Dr. Jacobs. I don't think that conversation perhaps took us to the natural conclusion that I think it should have, so perhaps we can continue here. You've been involved in the DEI process at your institution for how long?

**Dr. Les Jacobs:** At Ontario Tech, it is since I came in 2019.

**Taleeb Noormohamed:** In that process, how many folks have been hired when there were DEI considerations?

**Dr. Les Jacobs:** I'd say three.

**Taleeb Noormohamed:** In those cases, the quality of the hires that you made, do you think the people you hired were somehow lesser in terms of their capacity to do the research, to do the work, to add value or to contribute to academia as a result of the fact that you had those criteria placed on them?

**Dr. Les Jacobs:** No.

**Taleeb Noormohamed:** Would you say they were at least as good? Would you say they were better?

**Dr. Les Jacobs:** Certainly in all cases they were at least as good and, I would say, in one or two instances, better.

**Taleeb Noormohamed:** What does that tell us in terms of why these criteria are important?

**Dr. Les Jacobs:** One of the values of the exercise is that it gives us an opportunity to really scrutinize applicants who might not have otherwise been considered or received attention. The broader context is that there's a long history of that kind of exclusion.

**Taleeb Noormohamed:** I don't want to put words in your mouth, but in other words, by setting that criteria you actually attracted people to apply who may not have otherwise applied, and it allowed you to hire somebody of equal merit to a non-DEI process and to enrich the faculty that you had. Is that a fair statement?

● (1700)

**Dr. Les Jacobs:** That is exactly the case.

**Taleeb Noormohamed:** My friends opposite seem to think it's funny that these criteria are applied. Perhaps you might explain to them what value it actually adds to have that diversity, particularly in the case that Mr. Ho pointed out, of women in academia and in that particular research area.

**Dr. Les Jacobs:** For example, in nuclear engineering, one of the fundamental things that we hear from our industry partners—we work closely with all of the major nuclear engineering sectors, as we're the only nuclear engineering program in the country—is that they are very concerned about having more women who are nuclear engineers. There are huge concerns about the job shortage as there's this renaissance investment in nuclear, and bringing in more women among our students is fundamental.

One of the very basic uses is to see representation in the professoriate.

**Taleeb Noormohamed:** [*Technical difficulty—Editor*] time that I have.

You talked about the importance of representation. When we have more women in academia and when we have more people from backgrounds that have not often been in academia, who are hired not just because of race but actually on merit, or not just because of gender but also because of merit, what does it do in terms of the rest of the population—young people, particularly students—when they see that? What does it do in terms of their own thinking vis-à-vis academia, research professions, being faculty, teaching and doing groundbreaking research?

**Dr. Les Jacobs:** I didn't get the comment on public confidence, but if you think about public confidence and trust, the Canadian public is not holistic. It's not uniform. It's not a single group. There are large numbers of people in the Canadian public who actually feel excluded from universities and feel excluded from the professoriate, and these measures are ways in which you build up their trust and confidence in the universities.

**Taleeb Noormohamed:** You're doing all of this without diminishing the standards and the quality of the research or the people you're bringing in. Is that correct?

**Dr. Les Jacobs:** Yes.

**Taleeb Noormohamed:** Perfect.

Thank you, Madam Chair. That's all I have.

**The Chair:** Thank you.

With that, this panel comes to an end. I really want to thank all of our four witnesses for appearing before this committee and for making your contributions towards this important study.

With that, we will suspend the meeting for a few minutes. We are public and we have to move in camera to do some consideration of the draft report.

Thank you once again. The witnesses can leave.

I will suspend the meeting, and we will let all the members know once we are back in camera. Thank you.

[*Proceedings continue in camera*]

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