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Chair

Mr. David Sweet

Standing Committee on Industry, Science and Technology

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● (1100)

[*English*]

The Chair (Mr. David Sweet (Ancaster—Dundas—Flamborough—Westdale, CPC)): I call the meeting to order.

Good morning, ladies and gentlemen.

[*Translation*]

Good morning everyone.

[*English*]

Welcome to the 43rd meeting of the Standing Committee on Industry, Science, and Technology.

Because the clocks are a little bit all over the place, we will go by BlackBerry time, which says it is now time for the meeting to start.

Go ahead, Madame LeBlanc.

Ms. Hélène LeBlanc (LaSalle—Émard, NDP): I wanted to make sure that for the week of November 20 our meetings will be televised, as they usually are for a public meeting. This is the week we have the ministers with us. It's usually a televised meeting, anyway.

The Chair: We will certainly do our best. There are only a couple rooms available. Depending on what is available, we will do it.

Ms. Hélène LeBlanc: If we could make the arrangements, that would be great. That's why I wanted to point it out before we start. Thank you.

The Chair: Now we will move on to introducing our panel of witnesses today.

We have quite an entourage with us. First, from Canada's Research-Based Pharmaceutical Companies, we have Brigitte Nolet, who is a director of government relations and health policy, special division. She is from Hoffmann-La Roche Limited. We also have Declan Hamill, chief of staff and vice-president, legal affairs. From TEC Edmonton, we have Chris Lumb, chief executive officer. From Genome Canada, we have Pierre Meulien, president and chief executive officer. From Research In Motion, we have Morgan Elliot, director of government relations, and Robert Guay, director, intellectual property operations.

I will begin in the order we have before us. From Rx&D, Brigitte Nolet, please go ahead.

Ms. Brigitte Nolet (Director, Government Relations and Health Policy, Specialty Division, Hoffmann-La Roche Limited, Canada's Research-Based Pharmaceutical Companies (Rx&D)): Thank you very much, Mr. Chair and honourable members.

On behalf of Canada's Research-Based Pharmaceutical Companies—Rx&D—thank you for the opportunity to appear before you today. As you have heard, Declan and I are here representing Rx&D.

To start, Hoffmann-La Roche Limited is a member of Rx&D. We have Canadian operations in Mississauga and Laval. I am here before you today as the acting chair of Rx&D's intellectual property protection committee.

[*Translation*]

New medicines and vaccines represent some of the most advanced, safe and effective treatments available to help Canadians live longer, better and more productive lives. Our medicines also ease the burden on the health care system by avoiding more costly hospitalizations and invasive procedures.

[*English*]

The innovative pharmaceutical sector is a key player in Canada's knowledge-based economy. We account for some 46,000 well-paying direct and indirect jobs in Canada. Last year alone, we invested $1.3 billion in research and development and we contributed $3 billion to the economy. One of the drivers of business investment, commercialization, and prosperity is a country's intellectual property, or IP, regime. This holds true for sectors from aerospace to resource development, from information technology to the innovative pharmaceutical sector.

A globally competitive IP regime supports other policy efforts as well, such as tax policy, regulatory efficiency, and investing in research capacity such as universities, hospitals, and clinicians. A key aspect for success in Canada is a predictable and reliable business climate. IP protection is key to creating this stability.

Right now, Canada has a unique opportunity to conclude the Canada-EU comprehensive economic and trade agreement, CETA, and make necessary improvements to harmonize our life sciences IP regime with European levels.

Specifically, we believe the federal government should do the following: one, create an effective right of appeal for innovators in patent invalidity proceedings—it's a simple matter of fairness; two, improve our data protection regulations from eight to 10 years, an incremental but important change; and three, implement patent term restoration, which already exists in every other OECD nation except New Zealand, Mexico, and Canada.

These improvements would make Canada's IP regime more stable and predictable.

A few weeks ago, this committee heard that there was no link between strong intellectual property and pharmaceutical research and development. We fundamentally disagree. The facts state otherwise.

In 1987, pharmaceutical investment in Canada was just $93 million. A year later, Bill C-22 improved the Patent Act, and along with amendments in Bill C-91 a few years later, here is what happened: over the ensuing 25 years, innovative pharmaceutical company investment in Canada grew from $93 million to $1.3 billion, an increase of 1,500%.

● (1105)

[*Translation*]

Despite an increasingly challenging and uncompetitive environment, we honoured our commitment to Canada. In fact, Rx&D members are the largest private sector investors in health research in Canada, proudly investing more than $20 billion over the last two decades.

[*English*]

To be fair, we acknowledge that our member investments, while averaging $1 billion every year, have declined over the past few years.

This is due in part to other countries surpassing Canada's IP regime. As a consequence, the global pool of life science investments is migrating elsewhere. Other nations, both developed and developing, can also boast of their business climates and top-flight scientific talent. In a fiercely competitive environment, Canada must keep pace. Harmonizing our IP regime to European levels will be the catalyst that helps to halt and reverse this trend.

Mr. Chair, allow me to acknowledge the IP changes that the federal government made to Canada's data protection regime in 2006. These changes played an important role to enable Hoffmann-La Roche to attract and win a $190 million investment last year. This investment will yield a new global pharmaceutical development site in Mississauga, one of six such global clinical trial sites for the Roche group, and 200 high-skilled jobs.

These changes also resulted in Rx&D members submitting 25 new medicines in Canada over the last five years, which would not have occurred without effective data protection.

As for concerns that these IP changes could impact provincial drug budgets, I would note that the provinces have every tool at their disposal today to manage them. Furthermore, Europe has stronger IP protection than Canada, yet EU countries, on average, spend less on health care as a percent of GDP compared to Canada, while benefiting from better access to innovative medicines.

Mr. Chair, you've heard a lot about intellectual property in the context of policy tools and investment levels, but I'd like to conclude by telling you what we think IP means for Canadians.

Over 75% of our investments go to clinical trials that benefit patients. Today there are more than 3,000 clinical trials under way across Canada. These trials are helping Canadians drawn from every background, region, and riding. These are your constituents.

In our Living Proof campaign, copies of which have been circulated to you this morning, Canadians are telling stories about the positive impact of innovative medicines on their lives.

Tannis Charles, 46, from Winnipeg, was the first participant in a global clinical trial for a new rheumatoid arthritis medicine, and her symptoms are now In remission.

Bill MacPhee, 50, from Fort Erie, uses our medicines daily to manage his schizophrenia, a condition he has been living with for 26 years.

Ron Hansen, 69, in Toronto, uses innovative medicines for his COPD, which is a severe respiratory condition.

Today millions of Canadians are managing diseases such as diabetes, cancer, HIV/AIDS, or hypertension, just to name a few, and they are managing them with the appropriate use of innovative medicines and vaccines.

Strong pharmaceutical IP can increase our national wealth, but it is also critical to sustain and improve our national health. In our industry, intellectual property is the cornerstone of encouraging health research. The stronger it is, the stronger will be Canada's ability to innovate and bring new therapies to improve the lives of Canadian patients.

[*Translation*]

Thank you very much. We would now be pleased to answer your questions.

[*English*]

The Chair: Thank you very much, Madam Nolet.

Now we go on to TEC Edmonton. Mr. Lumb, you have seven minutes, please.

Mr. Chris Lumb (Chief Executive Officer, TEC Edmonton): Thank you very much. I appreciate having the opportunity to come and speak with you.

My name is Chris Lumb, and I'm the CEO of TEC Edmonton, which is a joint venture between the University of Alberta and the City of Edmonton. I'm speaking to you predominantly as a representative of the University of Alberta, but also as a representative of institutes and institutions that universities create.

I have a simple message, and it's based on experience. I'm going to give you the message and give you a couple of examples of why I believe it's supported.

The message is that intellectual property policy is not as important as the leadership of the institutions that manage intellectual property. Therefore, when creating legislation and policies, I would strongly suggest that you bias towards actions that support strong leadership as opposed to getting into the details of which particular IP regime is better or worse, because, if you look at the numbers and the facts, there really isn't a single better or worse IP regime.

I'm going to give you a little bit of background on TEC Edmonton and why it exists, because it's got context for this. The organization I run was created about six years ago, and it came out of three fundamental ideas.

One is that universities generate negligible revenue for intellectual property royalties, at a little over $50 million per year for all Canadian universities, versus tens of billions of research dollars of expenditure in universities overall, so it's just not material to universities. The University of Alberta recognized that some number of years ago.

Also, in many cases university intellectual property by itself is too immature and comes too early to fully commercialize.

Universities also recognize the growing importance of their role as drivers of commerce in the economy.

The University of Alberta's response to that was to partner with the City of Calgary to create a joint venture organization called TEC Edmonton, which I run. It is, at this time, pretty much unique in Canada. In one independent organization, it does four things. One, it manages the intellectual property assets of the university. Second, it's got a business advisory and accelerator service to provide advice to early-stage companies, whether they come from the university or not. Third, it runs an incubator, which serves university and non-university companies. Fourth, it carries on a variety of training and entrepreneur development activities.

What makes that unique is that most universities don't give their IP assets to an independent organization that they don't fully control. The goals in setting it up TEC Edmonton were to focus on creating more spinoffs and on licensing locally and regionally in preference to licensing internationally, on the basis that if the university could license locally, it would create more spinoffs. It wouldn't really be forgoing any licence revenue because universities don't generate very much anyway, but in the long run it would create more new economic activity in the region, and that would link the university to the region better. That was the goal.

There were a couple of good outcomes, and I'd like to highlight two of them. One is from the institutional point of view and one is from the community economic development point of view.

I'll start with the institutional. I was just invited to speak here three or four days ago, so I don't have material translated to hand out, but I'll give you the numbers, and we can get them to the committee later.

One of the measures of commercial success of universities is the creation of spinoffs that are still operational. If you look back over time, if a university created a spinoff and it died a year later, that's not really as effective as if it's still in existence over a number of years. That's a measure that is gathered by most institutions around North America.

The University of Alberta ranks in the top 10, somewhere between eight and nine, depending on the year you measure it, of all institutions in North America. There are several hundred research intensive-based institutions in North America, and the University of Alberta ranks in the top 10. In addition, the University of Toronto ranks in the top 10, and UBC ranks in the top 10 as well. Those happen to be, perhaps with the exception of McGill, the three largest research-based universities in the country: Toronto, Alberta, UBC. All three rank in the top 10 of North America for creation of sustainable spinoffs. Interestingly enough, they all have different intellectual property policies. Actually, the University of Alberta and UBC are inventor-owned. The University of Toronto is institution-owned. Waterloo, which is completely inventor-owned, with no involvement from the institution whatsoever, doesn't rank on this scale.

● (1110)

What it says to me is that there isn't a right answer. You can't say that institution-owned is better or inventor-owned is better. What really matters is what the leadership of the institution has done to foster a culture of commercialization within the institution. Within that, pretty much any IP regime can work. That's one of the pieces of evidence I put before you.

The second is results of an organization like TEC Edmonton, which are broader than simply university-based. We did a survey last year of 74 companies we worked with. We expected to see decent numbers in terms of growth of economic activity. Those 74 companies generated $75 million of revenue, raised $27 million in new capital, spent $17 million on R and D, and grew collectively by 25%. That compares with Industry Canada data that says that the typical growth rate of organizations as early-stage technology companies is 10%.

If our survey showed 25% and the typical growth rate is 10%, the conclusion I draw from that is that whether it's TEC Edmonton or any kind of accelerator, young companies that access support networks, such as those provided by institutions and organizations like ours, do better. They grow faster. That makes sense because they're accessing networks, financing, expertise, and all sorts of different things. It says that the role of universities to support these kinds of organizations—accelerator organizations, business support organizations, IP commercialization organizations—is very important, because it does actually make a difference.

Another interesting fact that came out of the survey is that of the job growth that we saw, which was a growth of about 25%. It went from 600 jobs to 750 jobs across these 75 companies. It was spread across a number of companies and a number of sectors. There's no one winning sector; there's no single, big company that generates all that. That, too, is consistent with data that comes from U.S. entrepreneurship studies.

There are two outcomes: one, Canadian universities in general do well; two, these support organizations do well. My conclusion, then, is that leadership matters, and the action that you can take is to support things like Tri-Council funding that fosters commercialization-type behaviours in universities.

As well—and this is perhaps a little self-serving—I believe you should consider having regional organizations such as Western Economic Diversification support tech transfer offices that behave in the way that you want to see them behave.

Thank you.

● (1115)

The Chair: Thank you, Mr. Lumb.

Now we'll move on to Genome Canada, with Pierre Meulien.

[*Translation*]

Mr. Pierre Meulien (President and Chief Executive Officer, Genome Canada): Good morning, Mr. Chair and committee members.

I am going to give my presentation in English, but I would be pleased to answer any questions in French, if you like.

[*English*]

Mr. Chairman, on behalf of Genome Canada, I'm pleased to tell you about our priorities and activities and offer some thoughts on Canada's intellectual property regime, especially in regard to the field of genomics-based research, development, and commercialization.

Genome Canada is a not-for-profit corporation dedicated to developing and applying genomics that create economic wealth and social benefit for Canadians. We work in partnership with our six regional genome centres and with government, academia, and industry. This network is the Canadian Genomics Enterprise. We invest in and manage large-scale research and translate discoveries into commercial opportunities, new technologies, applications, and solutions in key life science sectors of the economy. Those sectors include health, agriculture, environment, energy, mining, fisheries, and forestry.

We continue to consider the economic, ethical, environmental, legal, social, and other challenges and opportunities related to genomics research and development. We do this to provide understanding that speeds the acceptance and uptake of innovations into society. Since the year 2000, fulfilling our mandate has resulted in $1 billion committed by the Government of Canada. In turn, this has leveraged a further $1 billion in co-funding over the same period.

Our achievements include a strong focus on commercialization. Since our inception, more than 20 SMEs have been created or enhanced; more than 200 patent applications filed, with 52 patents issued; and more than 20 commercial licence agreements negotiated with the private sector. In all our endeavours, our funded researchers and partners are encouraged to use their best efforts to ensure intellectual property is exploited to maximize the benefits for Canada and Canadians. This means both economic and social benefits.

Considering the role of intellectual property protection in the field of genomics begins with the clear understanding of how our innovation system works.

Innovation is a process. It's a complex one and has increasingly become a collaborative venture. Its key element is translation, which is moving from idea to invention, invention to product, and from product to business. Innovation frequently involves public sector funders, university-based researchers, and private sector entrepreneurs working together in teams and consortia.

These teams often cross national boundaries and operate often in a so-called “precompetitive” modus operandi. For innovation to flourish in such a complex environment, a number of policies and practices must be in place, and intellectual property protection is one of them. Intellectual property protection always involves creating a balance between protecting the economic rights of creators and providing public access to their inventions.

In today's world, IP protection is one of the keys to innovation, which drives productivity, and as a result has become an important competitive tool between national economies. Countries with strong IP protection attract the most entrepreneurial researchers and the kinds of investments that lead to jobs, products, and markets. Countries with weaker IP regimes often see those benefits go elsewhere.

We need Canada to have a level playing field to encourage investment from elsewhere. The more level the playing field is for intellectual property protection, the more freely capital, ideas, and skilled knowledge workers will flow.

In addition, we must work harder to encourage more homegrown intellectual property development and exploitation. That's a complex undertaking involving much more than IP issues. It also touches venture capital, innovation models, risk management, and a whole lot more.

Intellectual property rights entice entrepreneurial researchers and inventors to take risks in the expectation of economic rewards in their quest to develop new drugs, better diagnostic tests, more resilient crops, and so on. In the field of genomics, where large data sets are produced and stored, the balance between sharing this data openly and protecting potential value is critical in harnessing the value of publicly funded research.

Increasingly, members of the collective research community opt to place results of their work in the public domain. This provides all interested parties with fundamental knowledge and enables others to continue research that truly can benefit the world community and improve commercial prospects.

That is the approach taken by the Structural Genomics Consortium, for example, of which Genome Canada is a foundational funder. The SGC is one of the largest-ever public-private research partnerships, representing more than 200 scientists working in labs ranging from university labs to some of the largest pharmaceutical labs in the world, all of whom openly share their early-stage results. The goal is to speed novel and effective drug discovery by identifying suitable molecular targets in a high throughput mode. The result is a new approach to intellectual property rights that allows drug makers and university scientists to share risks and reduce costs at a stage of research deemed precompetitive by the stakeholders.

● (1120)

In this manner, the speed of knowledge creation is maximized, and the companies involved compete further down the value chain.

Genome Canada recently published a brief entitled “Moving Beyond Commercialization: Strategies to Maximize the Economic and Social Impact of Genomics Research”. I have a few copies here if people are interested.

The authors are leading experts in intellectual property, technology transfer, and public policy. They argue that commercial success alone is inadequate to measure intangible assets such as the scientific knowledge, entrepreneurial experience, and industry collaboration that are necessary ingredients for economic growth. The point is that as important as intellectual property protection is in creating a supportive framework for genomics research and innovation, it is just one element of that framework.

To this end, we have been in ongoing discussions with the Government of Canada seeking financial support for multi-year programming. Specifically, we are seeking up front a federal commitment of $440 million to support four years of genomics-based research and development. Because of our ability to leverage federal funding through partners and transform discovery into real benefits, this would lead to a net investment for Canada of $1.2 billion in genomics research and development over the next four years. That's a 1:2 leverage of federal dollars.

This long-term, stable, effective, multi-year funding is essential to underscore Canada's commitment to an emerging bioeconomy and to show how genomics innovation can preserve and create jobs, boost productivity, and develop value-added products and markets.

Thank you, Mr. Chairman, for your attention.

The Chair: Thank you very much, Dr. Meulien.

Now we go on to Research In Motion.

Mr. Elliott, will you be doing the opening remarks? You have seven minutes.

Mr. Morgan Elliott (Director, Government Relations, Research In Motion): Mr. Chair and honourable members, good morning, and thank you for the invitation to appear before the committee.

RIM is a proud Canadian company, founded in 1984, and our first BlackBerry was introduced in 1999, creating a whole new way to communicate. Our products spawned a global smart phone industry that is now estimated to be worth more than $200 billion annually. In addition to our Canadian headquarters in Waterloo, we have other operations and R and D facilities in various Canadian locations and across the globe.

RIM has been transitioning our company and we've been laser-focused on delivering our new BlackBerry 10 platform and associated products. We're on track to launch in the first quarter of next year and we've seen great support for our existing BlackBerry products across the globe. The momentum is strong and building for BlackBerry 10.

This past quarter, when many speculated we wouldn't, we grew our customers to 80 million users worldwide. We have a strong foundation operating in 178 countries, working closely with more than 600 telecommunication carriers. We have no debt on our books and we have a cash balance in excess of $2 billion.

With this backdrop, we are preparing to introduce the world to BlackBerry 10, an innovation that will usher in a new era of mobile communications and mobile computing. This innovation has been supported by a huge effort of more than $1.5 billion annually in R and D, spent primarily here in Canada, but also in places like the U. S., the U.K., and elsewhere.

Innovation, intellectual property, and the IP regime in Canada, but also globally, are of critical importance for our business. In these brief opening remarks, we'd like to underscore one very fundamental point: while innovation may lead to intellectual property rights such as patents and copyrights that need to be protected in a well-functioning IP regime, a solid IP regime does not necessarily lead to innovation or innovative companies or high-quality jobs. Above all, we have to keep our eye on ensuring that we foster and sustain innovative, globally competitive Canadian-based companies.

Early in our corporate history, RIM was assisted greatly by the policies of both the federal and provincial governments, whether it was IRAP, TPC funding, tax credits derived from the SR and ED program, or the provincial co-op tax incentive programs. Public sector support played a key role in our success. Our competitors also benefit from a variety of similar supports where they do their R and D, because world economies want this work and all the benefits that come with it.

We believe that Canada's key programs in support of innovation and commercialization, particularly for the ICT sector, have to be nimble to ensure that they can address changing business models and changing global economic environments.

If we were limited to recommending just one action you take forward to strengthen the foundation for innovative companies in Canada and jobs in Canada, it would be to ensure that we maintain the right competitive incentives for investing in R and D here in Canada.

There have been numerous studies on the need to see a better ROI on government support in this area, and we concur with this need. Some good initiatives have been announced to strengthen the program supports for innovative-based SMEs and to generate more venture capital funding, and we agree with those, but the job is not done, and many of our larger innovation-based companies remain concerned about the ongoing competitiveness of Canada's tax incentives and programs to attract and support R and D. The Canadian Manufacturers and Exporters and others have done a good job of highlighting these issues lately, and we recommend their recent reports to you.

First, we need to ensure that Canada fosters R and D, innovative global companies, and jobs, and then we need to support those with a strong intellectual property regime.

As an innovation-based company, RIM develops proprietary software, physical products, and services on a daily business. As a result, we have a substantial portfolio of intellectual property rights in Canada and elsewhere. We were granted approximately 6,000 mobile patents by the U.S. patent office and European patent office between 1995 and 2012. In 2010 alone, we filed for over 1,000 patents with the United States patent office and filed hundreds of patents in other international jurisdictions, including the Canadian patent office.

We view the IP system as a larger piece of the global puzzle. While the Canadian IPR system is generally well crafted, it must be balanced and supported in a manner that promotes innovation within the marketplace and guards against the kinds of abuses we've seen in other countries, where IPR often acts as an obstacle to innovation rather than a catalyst.

We also agree with others who have appeared before you that Canada can do more to adopt the best international practices for patent examination to increase patent examination quality and efficiency while reducing time to patent.

● (1125)

Finally, there are steps to take to leverage Canada's very substantial investments in public sector R and D.

RIM is passionate about nurturing new talent and technologies at the academic level, and we have first-hand experience in building and maintaining strategic partnerships with academic institutions globally, through support for university research and educational outreach activities.

There are several models that post-secondary institutions follow in commercialization, and of course we're particularly supportive of the University of Waterloo model, which I think you heard about previously. We can leverage our university students and turn them into the next generation of innovators. Co-op programs are a great asset in Canada. We'd love to answer questions about those and how RIM has benefited from co-op.

We believe that a federal tax credit that is offered to companies who employ co-op students could further accelerate commercialization models and an understanding of how business innovates. RIM also believes that companies should have access to, and be able to license, technology created in government laboratories and institutions. There is no value added and no opportunities if intellectual property sits on a shelf.

In conclusion, let me sum up by saying that the Canadian digital economy is reliant upon innovation and requires modern, competitive public policies, programs, and incentives. This is essential if we are to ensure further development of existing Canadian companies as well as lay the foundation for the future companies yet to be launched.

We do need a strong IP regime. While we believe that the Canadian IPR system is generally well crafted, as I noted earlier, we also see that there are opportunities to strengthen it. We are conscious of the delicacy of this task. New laws or polices that may be good for one company may harm another. A policy that is good for one industry might be harmful to another. This area is very complex, and we appreciate the committee's time in talking to us so that together we can help identify potential pitfalls.

Thank you for the opportunity to appear. We welcome your questions.

● (1130)

The Chair: Thank you very much, Mr. Elliott.

We have a minister on the front bench, who I'm certain will be humbled by the fact that he's in good company with Research In Motion—focused like a laser.

Voices: Oh, oh!

The Chair: With that in mind, we'll move on to my colleague Mr. Carmichael for seven minutes.

Mr. John Carmichael (Don Valley West, CPC): Thank you, Chair.

Thank you to all our witnesses for joining us today. We appreciate your taking time from your busy schedules.

For those of you who have had an opportunity to take a look at what we've been doing in this study, it's a study that we take very seriously, obviously, and it's one I believe is very important to the future of this country.

To set the stage for today's questions, Dr. Meulien and Madame Nolet, could you talk a bit about Canada specifically?

I read a lot early in the discussions, and the testimony from witnesses has been that Canada is the second place of registration for patents. I got the impression early on that from an IP development perspective, we aren't a leader, although I've heard a lot of testimony over the past month or so that maybe we're better than we've given ourselves credit for.

Could you talk to the baseline of where Canada sits globally today? We want to take patents and IP to commercialization, and obviously, Dr. Meulien, we're going beyond that now, but let's just start with taking it to commercialization.

How does Canada fare globally, and are there hurdles? As well, are we doing things right that we should be acknowledging as we complete our report?

Dr. Pierre Meulien: Thank you.

This is a great question. I think that patents are not an end in themselves. Using patents as a measure of success of how we're doing in terms of commercializing research is not a good measure. As some people have already said, you can file a lot of patents, but if they just sit on the shelf, they're of no good to anyone.

I think the question is this: is the patent and intellectual property regime in Canada okay? It's probably okay, but we do need to make a level playing field, and I would encourage Canada to harmonize with the European system as much as it can, because I think it does in fact invite investment in terms of big companies coming in.

However, the issue I'm most interested in is how it affects the innovation piece, and that goes well beyond patents. We can have a patent, but if investment comes from the U.S. to take that intellectual property and create a company out of it, the first thing that's going to happen—and it has, and in some of our own companies that we have created—is that the company will be asked to go south of the border. We have to create an environment in which that does not happen, or happens less. There can be value in that, but it's not maximizing the value.

We need to create an innovation continuum that allows the intellectual property created in our academic institutions to remain in Canada and for Canadian companies to be created around that piece of intellectual property or, better still, to pool with others and create innovation and commercialization around that.

So how are we doing? We know that Canada has a problem with innovation. We're not creating the value, the new companies that we should be creating, and far too much of our intellectual property is going south of the border, with companies being created down there.

Now, that's a complex area for discussion, because it involves the VC mentality in Canada. We're risk-averse in Canada relative to others. Our VC community is not a specialized community; it's a generalist community. We need to change that. Also, we need to support the entrepreneur type of mentality in Canada, which is much more mature south of the border and in many other countries.

I think that patents are not an end in themselves. I think we need to look at the broader picture and nurture that innovation continuum, which currently is problematic in Canada.

● (1135)

Ms. Brigitte Nolet: I would echo some of Dr. Meulien's comments. We believe very strongly in the potential of Canada. In large part, we in our industry are Canadians who are going out into our global networks and advocating and promoting to bring investments back to Canada. We advocate for Canada.

For us, there are a number of factors that we have to consider when we are building our business case to bring an investment to the country. Intellectual property is an important piece. I would agree that our system is okay; it's just not great, and it has remained relatively unchanged for the past 25 years.

Therefore, when you're looking at the climate, the key for our industry, as I said, is a stable and predictable business climate. You're looking at a variety of different factors. You're looking at the regulatory system. Is it stable? Is it predictable? You're looking at taxation policy. You're looking at the talent pool. You're looking at the links between teaching hospitals and academic institutions. Also, you are looking at the intellectual property system.

For us, it's about trying to understand where we want our system to go, and not 10 years ago, but where we want it to be in 10 years from now and in 25 years from now. Where do we want health research to be? We've heard a lot about its potential. I think the key is that we have this opportunity in our discussions with Europe to really be able to modernize and to make some strategic amendments that will help bring us into that future of health research.

Mr. John Carmichael: That's terrific. Thank you.

Do I still have time?

The Chair: You have about 30 seconds.

Voices: Oh, oh!

Mr. John Carmichael: Thank you for your answers.

The Chair: Thank you very much, Mr. Carmichael.

We'll now go on to Madame LeBlanc *pour sept minutes*.

[*Translation*]

Ms. Hélène LeBlanc: Thank you very much, Mr. Chair.

I want to thank the witnesses for their very informative presentations.

I am the member for La Salle-Émard, in the southwestern part of Montreal. A number of businesses have shut down in the greater Montreal area, including some pharmaceutical research centres. So some high-paying jobs have disappeared in the past few years, and I find that very troubling.

I think you mentioned this: Canada seems to have lost its appeal as a leading site for research and development, especially in the pharmaceutical sector. You hinted at this. But could you tell us what led to these closures and what we can do to attract researchers once again? And yet, we aren't lacking in talent. What's more, things are stable on the political and economic fronts. What is going on?

Ms. Brigitte Nolet: You're right, the industry has gone through some changes in recent months, and jobs have been lost.

But there is another point I would like to get across. We believe in Canada's and Quebec's potential. We want to invest more and we want to do that in Canada. Even though we have seen job losses, we have also seen investments being made in Quebec.

I would like to draw your attention to an initiative announced by Eli Lilly. The company is partnering with Teralys Capital to set up a new investment model in Quebec, which will really target the early stages of drug development.

I would also point to Roche Canada's designation of the Montreal Heart Institute as its hub for translational medicine studying cardiometabolic disease. That represents a major investment.

As you mentioned, we can make changes. Numerous factors are at play. We believe the government could make strategic changes to improve the country's intellectual property regime and its ability to attract researchers. That means improvements to the right of appeal, data protection and patent restoration. Such measures could enhance Canada's ability to compete for investments.

● (1140)

Ms. Hélène LeBlanc: You and Dr. Meulien talked about harmonizing our IP regime with European levels. Our negotiations with the European Union are winding down. This is certainly an approach we could adopt. We are in talks with Asia and we are looking at that aspect. What are the challenges when it comes to a harmonized IP regime with countries in Asia? That question is for Dr. Meulien or Ms. Nolet.

Mr. Pierre Meulien: The first step is to harmonize our regime with the European and U.S. regimes. I'm no expert on how the Asians operate, but I believe theirs is a more heterogeneous model. That step really comes second in my eyes.

I would like to come back to your first question on investments by major pharmaceutical companies in Canada.

I don't believe Canada specifically is being targeted in that area. The global pharmaceutical model is changing. We won't be seeing investments in major R&D structures in any country. Pfizer just closed its main facility in Kent, England. I would say we need to think about new models of cooperation with the pharmaceutical industry.

In my presentation, I mentioned the Structural Genomics Consortium, which is one of those models. Phase three of the program has begun, and the initiative represents a $50-million investment by the pharmaceutical industry. That is another tool, another model that should be considered, and I'm sure that Canada is very well-positioned to attract that kind of investment.

Ms. Hélène LeBlanc: Very well. Thank you.

Mr. Lumb, do you have anything to add?

[*English*]

Mr. Chris Lumb: Thank you.

I agree with everything that my fellow witnesses are saying, and absolutely, harmonization with Europe is important. Doing things that we can do to attract investment for major pharmaceuticals is important, but I would also caution the committee to remember that new economic activity clearly comes from early-stage companies. That's where jobs are coming from. That's where new economic activity is coming from.

If this committee spends 90% of its time thinking about how to attract a particular investment or having a sector attract investment, it should do that, but it shouldn't spend 90% of its time on that. It should think about how to create an environment that fosters the creation of early-stage technology companies, because that's where the results come from. Clearly, they come from there. Think about that as well.

Ms. Hélène LeBlanc: It's a point well taken.

[*Translation*]

Thank you.

Harmonization has consequences. I want to come back to the pharmaceutical sector because it has an important role in my community.

Some studies report that extending IP rights to meet EU requirements would increase health spending by some $2.8 billion a year, because generic drugs would come onto the market later, as a result. You may already be aware of that argument, but I would like to hear your thoughts on that point. Extending patent protection, for example, may have repercussions on drug prices.

● (1145)

Ms. Brigitte Nolet: I will start, and then I will ask my colleague Declan if he has anything to add regarding the reports, specifically.

If I understand correctly, the reports focus on products introduced in the past five or ten years, so products that have already been brought onto the market. These were major products, and the reports assumed that all of the products would be granted the highest level of IP protection. But that isn't the case in Europe. It doesn't work that way.

We must bear in mind that health research changes quickly. It is often said that tomorrow's research won't look like today's. The pipelines of yesterday or five years ago have changed considerably.

Ms. Hélène LeBlanc: But—

[*English*]

The Chair: We're way over. I was trying to get something of substance, but we're almost a full minute over. We'll have to come back to that. I wanted the witness to try to get something in.

We'll go to Mr. Braid for seven minutes, please.

Mr. Peter Braid (Kitchener—Waterloo, CPC): Thank you, Mr. Chair.

Thank you very much to all of our witnesses for being here this morning.

Mr. Elliott, I appreciate the company update on RIM and on BlackBerry 10. I've had a couple of previews. It's very exciting technology. We look forward to its release in the first quarter. I know all members of Parliament will be ordering their BlackBerry 10 phones early in the next fiscal year.

Mr. Elliott, you mentioned that in 2010 RIM filed 2,000 patents. Where were most of those patents filed, and why?

Mr. Morgan Elliott: The number was 6,000 between 1995 and 2012, between the U.S. and the European patent offices.

In Canada we have about 5,400 patents that we've filed. In the last five years we averaged about 650. Canada is a country of second filing. We probably file more than most companies do in Canada, the reason being that filing patents is expensive. The cost to enforce patent rights is even more expensive, so we usually tend to do it in terms of market size, where the country is bigger—thus the U.S. and the European Union, where the market size is larger.

Mr. Peter Braid: So that's the main driver in terms of your decision about where to file the patents.

Mr. Morgan Elliott: Correct.

Mr. Peter Braid: Great.

You mention in your presentation, and I'll attempt to paraphrase it, that abuse of IP can be an obstacle. Could you elaborate on that and how abuse of IP has adversely affected RIM? What, if anything, can the Government of Canada do to prevent abuse of IP?

Mr. Robert Guay (Director, Intellectual Property Operations, Research In Motion): Maybe I could speak to that. What we mean by that statement is that every patent system has its shortcomings and a certain number of constraints. When we look at RIM's history with NTP specifically, RIM has faced a number of challenges in the past in relation to how certain IP rights are enforced.

The abusive nature of how IP rights are leveraged is more in the context of people's taking advantage of the shortcomings of patent offices around the world. That's what we mean. Where Canada can help is to think about how to make sure that the appropriate checks and balances are built into the IP regime, from beginning to end, so that only legitimate IP rights can be leveraged and enforced.

RIM certainly has no issue with a strong IP regime or with IPR holders that might have very strong IP rights. Where we do have an issue is with an IP regime that might be unbalanced and not necessarily have all the right checks and balances built into the system.

Madam Nolet mentioned the right to appeal. It's one of a number of examples where perhaps Canada can build more balance into the regime. Allowing the ability to question, the ability to patent, I think is important. That's just one example of where more checks and balances can be built into the system.

● (1150)

Mr. Peter Braid: Great. Thank you.

You also mentioned that access to IP developed in government research labs would be beneficial to companies like RIM. Could you explain what the barrier is to facilitating that currently?

Mr. Morgan Elliott: Sure. Not to pick on anyone, but NRC is a great example. If you go to the CIPO patent listings, you can see everyone who has filed a patent. There's a little check box that allows you to see whether it's available for licensing. Usually the government-developed technology is not available for licensing.

The best example that everyone knows about would be DARPA in the U.S., which put its technology out there. We now have the Internet today. That's one great example of why you'd want to do that.

As I said in my comments, if that patent or that technology is just sitting on the shelf, you're not making money. You're not creating jobs. You're not increasing the tax base. The same goes for universities and colleges.

Mr. Peter Braid: Great.

Madam Nolet, you mentioned in your presentation that patent term restoration exists in every OECD country except for New Zealand, Mexico, and Canada. I remember from my time on the copyright committee that being part of a club with New Zealand and Mexico is not the greatest club from an IP or copyright perspective.

Could you elaborate on what patent term restoration is and why it's important?

Mr. Declan Hamill (Chief of Staff and Vice-President, Legal Affairs, Canada's Research-Based Pharmaceutical Companies (Rx&D)): Sure. Thank you for your question.

Patent term restoration is a life sciences-specific IP provision found in 31 of 34 OECD countries. It allows innovators to claim some element—not all elements—of the time that is expired in the context of regulatory approval times, which can be quite long in Canada and other countries. It allows them to make an application to have some of that time restored at the end of the patent term.

It is on the table with the European Union. There are different models around the world. The European model is one such. The U.S. has a different model. Other countries have different models. Canada is, as you said, in a fairly rarefied atmosphere in having no model whatsoever in place.

There definitely is, from a life sciences perspective, a fairly glaring difference between the Canadian regime and other regimes. It would certainly be of assistance to our industry, on an ongoing basis, to have that rectified and have some sort of PTR system in place.

The Chair: Thank you very much, Mr. Hamill and Mr. Braid.

Now we'll go to Mr. Regan for seven minutes.

Hon. Geoff Regan (Halifax West, Lib.): Thank you very much, Mr. Chairman.

Thank you all for coming today.

Ms. Nolet, in 1987, after the Patent Act was amended to increase protection for pharmaceutical drugs, Rx&D committed to increasing its members' annual expenditures on R and D to 10% of sales revenue by 1996. According to the 2011 report of the Patented Medicine Prices Review Board, that ratio was at or above 10% between the mid-1990s and 2002. It was for maybe seven or eight years. Since then, it's fallen below 10%. It was at 6.7% in 2011.

The commitment made in 1987 was kept for a little while, but not on an ongoing basis. That's of concern, particularly when we talk about this proposal Ambassador Matthias Brinkmann talked about yesterday in Halifax. He made it very clear that for the EU, increasing patent protection from eight to 10 years is a big deal in the trade agreement being negotiated. We've heard about the costs. It would potentially cost provinces an added $2 billion per year. I don't know how much it would cost consumers across the country.

You talked about the $1.3 billion investment in R and D that it has grown to. That's important and valuable, and we want to encourage that. Of course, when you talk about $20 billion in R and D over that period, I assume that there was somewhere in excess of $200 billion in sales.

We were talking about the cost and how provinces can manage this increase in costs. You said that provinces have every tool at their disposal to manage them. Recently, in Nova Scotia, the NDP government cut spending on primary and secondary education by $200 million and made a similar cut to post-secondary education. Is that the kind of tool you're talking about that provinces have?

● (1155)

Ms. Brigitte Nolet: I heard two questions. I'll address the R and D commitment piece, and then I can go to the health piece.

For us, as we were discussing, the nature of research and development has changed in Canada. We've had this definition, as you pointed out, since 1987, but research has changed, and the type of research we do now and the type of investments we attract in Canada have changed. They're actually not captured in that definition.

We have companies like ours that bring global investments directly into the country. We have partnerships with biotechnology companies. We have venture capital, which you've heard about. We have acquisitions. We have private-public partnerships. All of these are different types of research and development that exist now and that are not captured in that definition. In fact, a vast majority of the $190 million in Mississauga I spoke to you about doesn't qualify for the SR and ED tax credit, which is what is used to measure that 10% commitment. I would also add that none of our investments in the Montreal Heart Institute qualify for the SR and ED tax credit, even though they are investments directly into this world-class academic research organization.

What I think might be interesting as you deliberate and consider intellectual property and its impact on investment is to actually look at these definitions. Look at how things are measured to ensure that we are capturing the true definition of research. Look at the true way investment is now coming into Canada, because, as you point out, it's very different from what it was in 1987.

In terms of health care and what we mean by tools, we have very good conversations when we bring our drugs to market. We go to the provinces. We submit our medicines for consideration for reimbursement. There are a number of things we consider and that we negotiate with provincial governments. Those are the tools I'm referring to.

Some provinces may have product listing agreements. Some provinces negotiate very well on criteria. For example, you have your drug, and it can do these things, but we would prefer that it come to market after you've tried this drug or only in this subset of patients. There are a number of different ways we have discussions within the health framework on these products coming through.

I would also add, and Declan may want to chime in as well, that when we're looking at what else happens around the world, I don't believe that there's any other industrialized country that uses the argument that it should weaken the IP regime to control health costs. The two usually aren't married.

Hon. Geoff Regan: Unfortunately, I only have seven minutes. Maybe I'll have another crack at this later.

Let me turn to Mr. Elliott and RIM. As you know, of course, we're delighted to have a RIM facility in my riding, in Bedford, in the Halifax area in Nova Scotia. Actually, I was glad to hear that it participated in or that there was work done there on the PlayBook, which is a great product, as I could tell my colleagues around here who have iPads and other things. I look forward to the BlackBerry 10.

Let me ask you about the impact on RIM. You talked about how RIM benefited from government programs over the years. I think that's also true of Nortel. It thrived for quite a while, and during its development, it had support in terms of procurement costs and other government supports. It developed some very valuable patents that were then, unfortunately, sold outside the country.

What was your view on that? What was the impact on RIM of the loss to Canada of those patents developed with Canadian dollars?

Mr. Morgan Elliott: First of all, there's no easy answer to that question. Companies are always answerable to their shareholders.

Second, the government also has to answer to the public and balance those needs.

In terms of the Nortel patents, along with some of our competitors, we were part of the consortium that purchased a large chunk of them. It was more of a defensive measure than to gain access to technology.

Again, it's a hard question. We would love the Canadian government to say we're not to let the technology leave the country, but in the same case, as an acquirer of different companies internationally, we don't want another government to say it to us.

It's finding that fine balance between how to keep that technology in Canada and how to allow Canadian companies to succeed in the international marketplace.

● (1200)

Hon. Geoff Regan: Speaking of the international marketplace, you talked about international best practices for patent examination. Would you like to talk some more about that and tell us the kinds of best practices you're speaking of?

The Chair: If he's going to do that, he'll need to do it on another round, Mr. Regan. We've run out of time. Again, we're always dealing with the clock. It's constantly moving.

We've moved out of our seven-minute round and into a five-minute round. The next questioners will have to be even more prudent.

First is Mr. Wallace, for five minutes.

Mr. Mike Wallace (Burlington, CPC): Thank you, Mr. Chair, and I want to thank our guests for joining us today.

I'm relatively new to the committee—reassigned, I guess you'd say. This is my third, maybe fourth, meeting on the patent issue.

I'm going to ask a question of Mr. Lumb. I'll just tell you what my view is thus far. From what I'm hearing from all the organizations, the patent system could use some tweaking, but it's not so bad that it's.... It's not a panacea for problem-solving.

One of the issues I've had over the years, not just now, is that I'm not sure we do a good job of producing entrepreneurs, those who are developing IP. It's no good having IP protection if you don't have any IP to protect.

My question to.... I think he's an engineer. Are you an engineer?

Mr. Chris Lumb: I am.

Mr. Mike Wallace: Mr. Lumb, based on your experience, is our educational system doing a good enough job of producing people who have the desire to take the risk instead of just being good managers? Are we developing risk-takers, the people who can develop IP in whatever the system is, whether it's tax credits, as we've heard from RIM, or whether it's IP protection that we're hearing from the pharmaceutical area? Are we doing a good enough job developing the IP capacity here, regardless of the pieces that would help develop it?

Mr. Chris Lumb: There's only the possibility of giving you a subjective answer to that question, but if I had to come down on one side or the other, I would say no, we're not.

That being said, in the country we're doing a lot better than we have been doing in the past. We can all point with pride to Waterloo as an example of experiential-based learning that clearly has an effect on the approach graduates take coming out of there. There's more willingness by Waterloo graduates to start companies than there is by people who haven't worked in small entrepreneurial companies throughout their undergraduate education.

Lots of other things are being done in other parts of the country, but predominantly, I think no, we're not where we need to be. Waterloo could be an example for more of that to take place across the country.

There are lots of other experiential-based learning programs now, and that's good. There are what universities call capstone projects, projects in which fourth-year students work with industry. There are things like that. There are many programs that graduate studies schools are doing to encourage people doing graduate work to consider entrepreneurship as a career, as opposed to thinking they will be academics, because most won't be, so that's all improving.

You see it in the aggregate numbers. I spoke about some of them in terms of start-ups created by universities. They're pretty good in Canada. The numbers are very good, in fact. We don't give ourselves enough credit for that.

But can we do better? Absolutely, we can do better there.

Mr. Mike Wallace: Mr. Elliott, I have a question. I have a daughter who is a co-op student at the University of Ottawa. She's in the business program, not in an engineering or a science program, but I would say that from our experience it's working very well. She's in her fourth year, and it's been a real eye-opener for her. She doesn't know what she wants to do in terms of a career, but she does have an opinion on.... She's worked both in the public sector and in the private sector.

In terms of the students RIM gets or hires through the co-op program they have, what is RIM's expectation of these individuals? Do you have a sense of what you want to get out of that program?

Mr. Morgan Elliott: Many people have the preconceived idea that we just hire engineering co-op students. Of course, we don't; we bring them from the whole gamut.

What do we expect them to do? We're not giving them the mundane, run-of-the-road jobs that you would get an office person per se to do. We throw them right into the thick of things. We give them assignments. They're just considered regular employees.

At one point in our evolution, at least 25% were co-op students. Security, for which we're really known in the world, was a suggestion for competitive advantage made by a co-op student. Some of our other developments and processes have been suggested by co-op students.

So they're thrown into the thick of it and they sink or swim. It's almost a “try before you buy” program for us as well.

● (1205)

The Chair: Mr. Wallace, that's pretty well all the time.

Mr. Mike Wallace: That's it?

Some hon. members: Oh, oh!

The Chair: Yes. I'm sorry; five minutes goes very fast.

Did you say that 25% of your employees were co-op students?

Mr. Morgan Elliott: Yes.

The Chair: That's unbelievable.

Mr. Harris, you have five minutes.

Mr. Dan Harris (Scarborough Southwest, NDP): I think I'm going to feel your pain in five minutes.

An “ouch” goes to my colleague Mr. Regan, with two separate shots there. Certain cuts in Nova Scotia might have to do with enrolment being down.

While I have my iPad, I have to tell you that I like my PlayBook a lot more. I am a techie geek and I like to have it all. At the time, the PlayBook didn't have the 3G capability, so I had to get the other to have stand-alone capability, but for any of my personal use, the PlayBook is way better. I chafe under everything, even iTunes; the PlayBook model is better there.

I want to also speak about the Nortel situation. I'm very glad that RIM was part of the consortium that bought it, and if there was going to be a deal to be made in terms of savings, I'm glad a Canadian company was there.

Of course, the IP sale was huge, but there has been lots of talk that there still wasn't appropriate value assigned to that IP. Do you guys think that Canada should have gotten more out of that deal?

Mr. Morgan Elliott: Certainly when the patents went, it was a wake-up call for many people, not just in Canada but across the globe, to the value of patents. You're seeing patent litigation in the U. S., and people are starting to realize their value.

As I said to Mr. Regan, it's always incumbent upon a publicly traded company to get the best value for shareholders. In the Nortel bankruptcy, it was incumbent upon them to recoup the costs they could to pay their creditors. At the same time, the government has to protect the public interest in the value they've invested.

There is no easy solution to this. I know that we as a company wouldn't want to see governments block us in our acquisitions in Ireland, in Europe, in Asia.

Mr. Dan Harris: Thank you.

Madame Nolet talked a little bit about the talent pool. Mr. Wallace was just talking about it as well. I think the best competitive advantage Canada can have is to have people with the appropriate skills mostly fill up those companies and provide the innovation.

As was also mentioned, it's with early-stage companies that we can boost our productivity. Just how critical does each of you think this is, if you had to place it on the list of most important things?

Mr. Chris Lumb: I'll start.

I think the answer is quite quantitative. New jobs come from early-stage companies. Most new jobs come from companies under five years old. Those are the facts: early-stage companies matter.

Dr. Pierre Meulien: It's critical. Just to give you one example, we don't usually run training programs or educational programs—we fund projects—but because of the lack of entrepreneurship in this country, we put a pilot project together to fund an entrepreneur-oriented educational genomics program that gives interface between young entrepreneurs coming from the business schools and our genomics projects. It's critical.

Ms. Brigitte Nolet: What we're seeing, particularly at Hoffmann-La Roche with our investment and our expansion of 200 jobs, is that there was some debate in the global family about whether Canada could bring some of that top talent. What we're seeing is that we're ahead in recruiting because of the talent that exists within the Canadian borders.

I would also add, though, that when you look around the world, some of the developing countries—the BRIC countries that we talk about—are also training, and their universities are ensuring that they have high levels of scientists coming out of their institutions as well. Therefore, while it's a very important factor in any investment, there are also developing countries that understand how important the talent pool is and are ensuring that they have the right number of individuals who are capable of moving science forward.

● (1210)

Mr. Dan Harris: How important the talent pool has been to RIM over the years has already been well documented, and certainly we want this to continue.

Since my time is going to run out, I would say very briefly, Madam Nolet, that I'd like to see Eli Lilly making some more investments in their Scarborough facilities as well. It happens to be in my riding—

Voices: Oh, oh!

Mr. Dan Harris: —around the corner from where my family has lived for more than 80 years. You can certainly pass that along to them.

Voices: Oh, oh!

The Chair: Thank you. That's great advocacy on behalf of your constituents.

We now go on to Mr. Lake for five minutes.

Hon. Mike Lake (Edmonton—Mill Woods—Beaumont, CPC): I'm going to go to Mr. Lumb, if I may.

Chris, could you elaborate a little? You talked about the difference in the way that U of A handles IP from the way some other universities do. You mentioned the University of Toronto, UBC, and Waterloo as well. Please elaborate on that a little bit. How are they different?

Mr. Chris Lumb: There are two fundamental approaches in the way universities manage intellectual property, and then there is variance within the two. The two approaches are inventor-owned and institution-owned; that basically says who owns the intellectual property. Then, within them there are various gain-sharing rights that have been negotiated at each university.

Typically, in the U.S., by comparison, intellectual property is institutional. That's as a result of a federal act called the Bayh–Dole Act in the U.S. Canada is somewhat unique in having a larger percentage of inventor-owned IP policies. Within the inventor-owned category, there are different degrees of control that the institution can exert.

In some cases—for example, at Waterloo—they say, "Inventor, you do whatever you want. You don't even have to tell us; you just do whatever you want with the intellectual property. We'll help you, if you tell us and you ask for our help, but you don't have to."

At the University of Alberta, there's a little more control. The IP is owned by the inventors. They can do what they want, but they have to tell the institution that they have it. The institution makes sure that the ownership rights are clear and so on—that they don't, for example, have a graduate student also licensing technology at the same time as his professor is, or that sort of thing.

However, I'll come back to the point I made earlier. If you look at the numbers of the created spinoffs that are sustainable, it doesn't really matter what the intellectual property policy of the university is. I know from my experience at the University of Alberta that the leadership of the university is very supportive of commercialization and speaks about it, highlights it, celebrates it, supports it when it's happening. That makes more of a difference than what the actual words in the IP policy say.

Hon. Mike Lake: What does that look like in practical application? You were talking about the four things you do within your office for innovators.

Mr. Chris Lumb: What it specifically looks like is a lot of support activity to help researchers understand whether they have a commercializable idea or technology, and if they do, working with them to help decide what the best way to commercialize is. Is it to licence it out to an existing company? Is it to create a spinoff?

If it's to create a spinoff, we give a lot of support activity to help that happen. We might negotiate with the university to get, for example, access to research labs for an early-stage company so that they don't have to replicate in a company capital assets that might already exist in the university. It's things like that.

The willingness of the university to support this is high at the University of Alberta, and it results in good numbers. Lots of spinoffs happen, and the proportion of spinoffs to patents is very high as a result of this focus by the administration.

Hon. Mike Lake: Morgan, I'm going to come to you now.

Mr. Lumb talked about Waterloo, and you have some experience there. Historically there was a point where RIM was a startup. Maybe you could speak to the types of services that were available at the time and how important those might have been to you.

Mr. Morgan Elliott: Sure. I think the story is fairly well known that one of our co-founders, Mike Lazaridis, actually left the university before he graduated, but he did go back to be the chancellor; I think that counts for something.

Voices: Oh, oh!

Mr. Morgan Elliott: In terms of what services were offered then compared with now, it's totally night and day. People are starting to realize the value of—pardon the term that's used a lot—collaboration, in the true sense of the term. Some of the things you're seeing now, in present-day supports, include startups going into Communitech, from whom I believe you heard at a rate of more than one startup a day. There are things such as bringing IRAP officials and such people as accountants and lawyers right in there with them. They're starting to realize that you need to create that whole system

To Mr. Lumb's earlier point, I think there's a better understanding and more of a cachet with being an entrepreneur now. Especially at the University of Waterloo, to be an entrepreneur is the cool job to do, and it's becoming less un-Canadian to make money and be successful. This is certainly a mindset that has changed rather recently.

● (1215)

The Chair: Thank you very much, Mr. Elliott and Mr. Lake.

We'll go on to Mr. Stewart.

Mr. Kennedy Stewart (Burnaby—Douglas, NDP): Thank you, Mr. Chair, and my thanks to the witnesses this afternoon.

My first question is for Ms. Nolet. I'm wondering whether the relationship between patent length and R and D investment is linear. We've heard a little bit of discussion about it fluctuating. Would you describe it as mostly linear, or do you think that...?

Ms. Brigitte Nolet: I think if we look at past results from the $93 million in 1987 to the over $1 billion nvested now, we have seen an increase that is quite linear in relation to changes in the Patent Act and what that has meant for pharmaceutical R and D.

Mr. Kennedy Stewart: If we extended the patent length another 10 years, do you think we'd encourage...?

Ms. Brigitte Nolet: Did you say another 10 years?

Mr. Kennedy Stewart: I mean, if it's linear, then the longest protection length would result in the most R and D.

Ms. Brigitte Nolet: The key for us is looking at the environment as a whole, looking at all of the elements and seeing how they can be made stronger. Canada is a small market compared with other markets—we're about 3%—but that doesn't mean we shouldn't be out there fighting for what is rightfully our share of that research and development, so that's what we do, and that's what we want to continue to do. For us it's about creating the best possible environment and making the best possible improvements so that we can get the greatest investment possible into the country.

Mr. Kennedy Stewart: When I was at a reception the other day, somebody from the pharmaceutical industry said she would like to be able to directly compete with the university researchers for discovery grants.

Is that something you would consider useful to your company?

Ms. Brigitte Nolet: I've never actually thought about that. We do a lot of work with local universities, and there are lots of academic research organizations we work with. We support many of them in their ability to apply for grants. We're working with the Montreal Heart Institute quite closely, and they are looking at a number of different grants for the research they are trying to do around the world.

It's a good question. I'd have to go back and ponder it with the industry. I'll have to get back to you on that.

Mr. Kennedy Stewart: I have a question for RIM. Your success is obvious. I'm wondering how much the government had to do with it. How much public money do you think has gone into RIM over the years, including or excluding indirect tax credits?

Mr. Morgan Elliott: It's been a lot. We were a recipient of an early IRAP grant when they were above the bagel shop, and there was a TPC grant back in the 1990s, which was a very good investment by the government. I sign off on the royalty cheque every year, so I know it was a good investment. I wish I could make some as good as that. As well, SR and ED for sure has been relatively large for us.

Right now we're averaging, not including the recent changes, about $150 million a year in tax credits, which is also a good investment. Not to go into tax law, we pay over $1 billion in federal taxes a year. That's a great investment. We're not selling that much in Canada; that's our sales internationally, and the profit's coming back home.

Mr. Kennedy Stewart: Maybe I could follow up on that with the rest of the witnesses.

Do you agree with the changes to the SR and ED tax credit?

● (1220)

Mr. Declan Hamill: From our perspective, there are changes to the SR and ED tax credits that have potential negative impacts on our member companies. The impact depends a lot on the company's business model, so it depends where you sit and how your business model is structured.

We were speaking earlier about the SR and ED definition, and that's a slightly different issue. That's regarding how R and D is calculated and measured, and that is a concern for all of our member companies, because we're not counting correctly.

Mr. Morgan Elliott: It cuts our support by a third.

Dr. Pierre Meulien: I think we need a balanced approach for SR and ED regarding direct versus indirect. That balance in not going one way or the other is important.

Mr. Chris Lumb: Also, a reduction of support for capital rather than labour is the opposite of what should be done if we want to focus on increasing productivity. If we support spending more on labour alone, that's not contributing to productivity. We want return on labour, so we should be supporting capital investments as well.

The Chair: Thank you, Mr. Lumb and Mr. Stewart.

Now we go on to Mr. McColeman. You have five minutes.

Mr. Phil McColeman (Brant, CPC): Thank you, chair.

Thank you to the witnesses for coming.

I have a couple of different questions. We'll start with Dr. Meulien.

You talked in your opening remarks about a very fast-tracked collaborative model that you've developed, and the way I interpreted it—and correct me if I'm wrong here—is that it breaks down that barrier of the proprietary nature of the IP or whatever the innovation is. I'd like you to expand a bit more on that and perhaps even relate an example or two, if you have them, of how this has worked, because it intrigued me in terms of the fast-track nature of what you're trying to do and how that process could actually be a huge winning process for companies.

I'd be interested, too, in Ms. Nolet's commenting on whether the people you represent are involved in these types of models to break down those barriers that exist.

Dr. Pierre Meulien: The best way to explain is through an example, as you suggested.

The first one is the Structural Genomics Consortium, which started with one pharmaceutical company joining a high-throughput technology-driven arrangement led by a Canadian researcher and linking up with the Wellcome Trust Fund, a group in Oxford University. That produces 25% of all of the protein structures available in the world, and that goes directly into a shared database.

Since then, eight pharmaceutical companies have joined this consortium, and we're now just entering phase three of its life. The interest from the pharmaceutical companies is that they get access to hundreds and thousands of things, whereas if they were just one-on-one with a research group, they would be doing 10 or 20 things. It's the scaling of what the technology can do. At scale this is incredibly productive and, as I say, is one of the most productive precompetitive research consortia in the world.

The other one, believe it or not, is in the energy sector. Four or five of the big Canadian-based oil companies have joined together in a genomics-based project, the goal of which is the remediation of tailing ponds and looking at microbial communities that live in the bitumen in the oil sands, trying to liquefy that oil and make it more easily extracted.

You can see why oil companies would think of that. It's a high-risk field. Who knows whether it's going to work or not? They believe in putting a few million bucks in there to see what the feasibility is, and they do that precompetitively, so the data is shared among everyone. Everyone has access to it, and then down the line they can be competitive. They can file their own patents based on work they would do in-house afterwards, and it's the same for the pharmaceutical companies in the Structural Genomics Consortium.

This is a model, and we can see companies doing more and more of this kind of work. It's not anti-IP, right? It's a precompetitive stage before the competition really starts, and it just speeds up the process. We know that pharmaceutical companies are struggling to get new products out the door, and sharing of data upstream will speed up that discovery process and allow them to compete down the value chain.

● (1225)

Ms. Brigitte Nolet: I would agree. Our companies are investing in some of these consortia. One interesting example is the Centre for Drug Research and Development, CDRD, in British Columbia. There are a number of companies involved, and that's exactly what we're looking at. We're investing in this centre. They are looking at a number of different therapeutic areas, and there is a real partnership in terms of what type of science is being developed.

There's also the B.C. personalized medicine initiative out of the University of British Columbia, and there are a number of companies that are working with this group. They're looking at how to help personalize and find diagnostic testing to match certain diseases so that we can be more certain as we go forward that certain therapies will be able to truly answer some of those questions, depending on the person's genome.

I agree that it's a really interesting way to go.

Mr. Phil McColeman: Good, and I have a comment to finish my time, because I know I'll be short on time here.

A number of our colleagues spent time this morning with about 50 Canadian university presidents over breakfast. There was a presentation from a young fellow named Kunal Gupta, who developed a company called Polar Mobile. The three things that he spoke about that were instrumental were the things that were brought up. Just to underscore what you said, one was talent, one was entrepreneurship—how he expanded his skill sets and the importance of co-op programs to him—and the other was a global, international focus.

The Chair: Thank you.

Now it's on to Mr. Thibeault for five minutes.

Mr. Glenn Thibeault (Sudbury, NDP): Thank you, Mr. Chair.

Thank you, guests, for being here today.

I'm going to move very quickly. I am going to focus most of my questions to the gentleman from RIM.

All of us carry a BlackBerry or a smart phone of some sort. We are relying on this more and more. I know our last study at the industry committee was talking about e-commerce and the digital economy. We use this more and more for even things like health care.

For example, there is a great company in Sudbury, in my riding, called Carenet. You can actually get an email and see a video if your senior parent hasn't taken their medication yet. We're going to be relying on this technology more and more.

What we are hearing in the news is that one smart phone company is suing another smart phone company, which is suing another smart phone company, all over patents. Will these costly lawsuits have an impact on the cost of handsets and the price the consumers will have to pay in the long run?

Mr. Morgan Elliott: First, let me say you have a very illustrious committee with everyone carrying a BlackBerry. I am very impressed with that one.

We mentioned bad patent regimes earlier. Certainly the U.S. is the prime example of where companies are suing each other. It's more of a way of keeping products out. I can think of a decision in a case we lost in California, adjudicated by a jury that may have known nothing about patents, in which the company was awarded—it was overturned—eight dollars for every device we sold. This was going to be the payment we were going to have to give to the company. Absolutely, if you get the patent regime wrong, it does increase the price to consumers.

Mr. Glenn Thibeault: Great. Thanks.

I have a two-part question. Can you speak a little bit about patent trolls? Has this hindered RIM's ability to commercialize new technologies?

Mr. Robert Guay: Patent trolls are an interesting phenomenon.

Again, in line with the comments I made earlier, depending on the jurisdiction, depending on the IP regime you're dealing with, there will be a different set of constraints, a different set of rules. Companies such as patent trolls will often look at these rules to try to use them to their advantage. Canada, just like any other jurisdiction, has to be cognizant of that.

A strong IP regime is perfectly fine. It is something a lot of stakeholders look for, but it has to have the right checks and balances.

Mr. Glenn Thibeault: Do you see anything we can do here at Parliament to help eliminate patent trolls?

Mr. Morgan Elliott: There are certain companies that may take part in activities that give the impression that they are patent trolls. I'll leave it to you to decide whether or not they are. In Canada the system, from that point of view, is good. We don't see the huge cases that we have in the U.S.

From a legislative point of view the answer is no, but from an administrative point of view, yes, there are a lot of things we could do.

● (1230)

Mr. Glenn Thibeault: Can you speak to the issue of corporate espionage, the theft of intellectual property by foreign entities? How is this going to impact the patent process? In what way can the government assist in protecting intellectual property from these types of threats?

Mr. Morgan Elliott: That's a tough question. It's incumbent upon every company to protect their own intellectual property and their own computer systems. People are starting to realize cybersecurity and cyberespionage are the new frontier in terms of the way some state governments are operating.

One way is education. In 2008 CIPO came out with a great study that said 80% of businesses knew what a patent was, but they didn't know what intellectual property was, nor did they think their business had any intellectual property. A lot of it is an education process, understanding that knowledge and the things you produce, not just hard goods, are valuable.

Mr. Glenn Thibeault: Excellent.

The Chair: You have 30 seconds.

Mr. Glenn Thibeault: With that, Dr. Meulien, if we're doing comments and saying thanks for constituents, thanks for Genome for being involved at Science North in Sudbury. It's a great facility, and your involvement there is much appreciated.

I'll take that with my 30 seconds. Thank you very much.

Some hon. members: Hear, hear!

The Chair: Thank you very much, Mr. Thibeault.

I will advise the witnesses that we will not likely have time for any closing remarks. If there is anything desperate that you need to get out, you will need to try to squeeze it in with your answers to my colleagues.

We now move on to Mr. Lake for five minutes.

Hon. Mike Lake: Thank you, Mr. Chair.

Pierre, I'm going to come back to you and continue the momentum here in terms of thank yous. Of course, you know I have a son with autism, and the scientists behind the autism genome project in Canada are among the world leaders in genetic research on autism.

I had a chance to visit Steve Scherer in Toronto, a second time that I've had the chance to tour his facility. The first time around we actually did it with my son and daughter and my whole family, but I had a chance a few weeks back to see him. It was pretty exciting, with them moving into a new building there soon, and it's exciting to hear about the phenomenal research that they're doing.

As it relates to the study that we're doing right now on IP, it seems to me that the application benefit of IP, dealing with a company like RIM, is very tangible—well, maybe not very tangible, but as tangible as IP can get in terms of understanding that benefit—but with something like what they're doing at the autism genome project, I think it's a little less tangible. Maybe you could speak to some of the practical application of IP with the work that Steve's doing. What does it look like, and how is the value of the IP recognized?

Dr. Pierre Meulien: That's a great question. Thank you.

In general, in genomics research there's a huge amount of data being created. There's a big case at the moment in the U.S. Supreme Court around the Myriad breast cancer gene that you might have heard about, and whatever way that's going to come down, the value of actually patenting a gene these days is very low. Most of it is in the public domain anyway, and more and more is going into the public domain. That's on one end of the spectrum, if you like.

The value, though, is going to be in the particular profile or genetic test or biomarker panel that you would like to put into a test that you or somebody will make and commercialize and sell. It's that value that needs to be protected with strong intellectual property, and that's being done in the genomics arena.

We have companies that have spun out of our projects. There is one looking at cancer gene panels for colorectal cancer. That's a commercialized product. It's available around the world, and the patenting was not on individual genes, but a panel of genes that was put together in a very innovative way.

I think we have the whole spectrum of activity, but toward the commercialization end, I think it's the specific use you're going to make of a specific panel that's based on your own innovation and your own discovery that's going to be of great value.

● (1235)

Hon. Mike Lake: Thank you.

Chris, I'm going to come to you again now.

Morgan mentioned education, and I think you said you've been doing what you've been doing or TEC Edmonton's been doing for six years. It seems to me that the real challenge here is that the people who are inventing and innovating, the researchers at the university level, historically have not always been entrepreneurs. They've not always been aware of the business aspects of what they're doing, the future business opportunities. They're very focused on the research they're doing and are not necessarily experts on the business side.

To what extent is that changing because of the things that organizations like Communitech or TEC Edmonton are doing?

Mr. Chris Lumb: I think they're having a huge impact.

Communitech is a good example. MaRS is a good example. TEC Edmonton is a good example. Innovate Calgary in Calgary is a good example.

They're making a difference, but keep in mind, too, that universities have many researchers doing research that is not and probably never will be commercializable, so the percentage of researchers at any given university who commercialize technology will always be low.

However, of the technologies being worked on that have the potential for being commercialized, I think there is much more awareness today than there has been, and I would say it's partially due to the organizations like the one I run.

That's only one reason. I think there are a number of other things. As I said, the awareness of senior administration at universities makes a big difference. The existence of infrastructure organizations like Genome Canada, CMC Microsystems, and Canarie make a difference because they provide shared infrastructure. As well, some of the funding that goes to them now is coming with some pressure from the federal government to focus on commercial outcomes, so that helps to make a difference.

There are a number of things coming together that are creating a stronger focus on commercialization than there was, say, 10 years ago.

The Chair: Thank you, Mr. Lake.

Members, we're now going into our third and optional round of five-minute questions. That means there will be two Conservative, one NDP, and one Liberal, if you so choose.

I have two names on here right now, and the first is Mr. Braid, for five minutes.

Mr. Peter Braid: Thank you, Mr. Chair.

Mr. Elliot, you referred to this phenomenon of companies acquiring patents for defensive purposes.

What's underneath that phenomenon? What's causing it? Is there anything that can be done about it? Is there any way for companies to say uncle, or is this just a natural evolution of the competitive nature of your business?

Mr. Morgan Elliott: That's a nice easy question.

Voices: Oh, oh!

Mr. Morgan Elliott:I'll take my cue from the chair and first of all thank you personally, in this public forum, for your ongoing support of Research In Motion. I know you're a great advocate for us, and we really appreciate it.

To that extent, too, Mr. Regan, I know you speak up for us, on our behalf, and we really do appreciate it.

You know, the members, and even the men and women of the public service, have been truly outstanding for us, in international affairs and Industry Canada, as we take on the world in our industry, so thank you very much for that. You've always been behind us.

Hopefully we'll give you reasons to be excited and to be behind us even more on November 7, when there's an event at the Château Laurier at which you can get a sneak peek at the BlackBerry 10. Certainly we hope you'll be able to attend.

I apologize for that commercial, but....

Is it a natural evolution? I don't know. It's too hard to say right now. Obviously the pendulum has swung quite far. You see all sorts of crazy class action lawsuits in the U.S., and it really is a barrier or a tool that people are using in the competitive nature of our business world. It does have an impact on the cost to consumers. It's all a matter of finding that balance, of being able to protect all of the R and D spending you do, and at the same time not making it anti-competitive—if that makes sense.

The short answer is that it's too soon to tell.

Mr. Peter Braid: Okay. Great.

Finally, you mentioned a couple of times that there are opportunities to strengthen the IP regime in Canada. Perhaps you could use your remaining time to highlight or reinforce what those opportunities are.

Mr. Morgan Elliott: I know that there are some administrative things in CIPO that Robert would like to address.

Mr. Robert Guay: We do have some suggestions. We didn't intend to cover them today, but we do have some general notions that we believe in.

One of them, which I spoke about earlier, is this notion of having an opportunity to question the validity of the patent after it issues. That's really important to us. I think it's one of the ways you can ensure that the system is a little more balanced.

That's one example. Another example is patent expertise. We've seen in other jurisdictions that patent expertise really makes a big difference, and that's throughout the entire chain. That's not just in the judiciary; it's also at CIPO.

I know that CIPO has put a lot of effort into trying to strengthen their expertise in terms of what they do and how they do it, but as in many other things, I think, there's always room for improvement. Their searching ability, for example, is something that is important to companies like RIM, in that the better the job they do, the higher the quality of the patent examination, so expertise is really key. To the extent that we can work towards strengthening that throughout the entire chain, I think it's something to go after.

● (1240)

Mr. Peter Braid: Thank you.

Do I have any time left, Mr. Chair?

The Chair: You have one minute.

Mr. Peter Braid: Dr. Meulien, you mentioned in your presentation some examples of sharing risks and reducing costs through your collaboration with, I believe, university researchers.

Could you just explain, in that scenario, how you sort out the ownership of IP?

Dr. Pierre Meulien: It goes a little bit back to what I was talking about in terms of the precompetitive space. You're sharing knowledge across a number of groups. They can be from the private sector or from the public sector.

You're sharing it, so everybody agrees from the outset that they will not file any intellectual property on the common knowledge resource that's being created in that project. They sign on to that. Then, after that precompetitive space, each individual is allowed to patent what they like when they generate their own research findings within a company or whatever.

You're sharing risk early on, but you're generating much more data than you would on a one-on-one basis. Then, later on down the value chain, you're protecting, if you're a company, what you'd like to actually commercialize.

The Chair: Thank you very much. Thank you, Mr. Braid.

Now we go on to Madame LeBlanc for five minutes.

[*Translation*]

Ms. Hélène LeBlanc: I am going to share my time with Mr. Harris.

Ms. Nolet and Mr. Hamill, earlier we talked about a tax credit reduction—with the rate dropping from 20% to 15%—and changes to eligible capital expenditures.

What impact will that new measure, which is included in the omnibus budget bill, have on Canada's pharmaceutical industry? I'm talking about the SR&ED program.

[*English*]

Mr. Declan Hamill: As I said earlier, it really depends on the company. We have over 50 companies, and many of them have different business models. Some companies are affected more than others.

I would say overall that it's not a good thing. It's a net minus. That said, it is something that is a little bit different from the issue that Brigitte was speaking about earlier, which is how R and D is actually counted in Canada. That's a 1987 SR and ED definition in the PMPRB's regulations, and 1987 was a long time ago. I graduated from high school in 1987. My hair was a bit different back then. I weighed a lot less.

We are really looking for the government to undertake a serious re-examination of that definition, because increasingly, as our business model goes on, less and less of what we actually do in the country is included, and that's problematic for us.

[*Translation*]

Ms. Hélène LeBlanc: Thank you.

Mr. Harris, go ahead.

[*English*]

Mr. Dan Harris: *Merci*.

Going back to RIM, I can certainly forgive you for that advertisement. I have a friend who works for RIM; I've seen one of the new phones, and it's very exciting, but I won't say what I saw because I'm not going to steal your thunder.

An hon. member: You're not supposed to have seen it.

Voices: Oh, oh!

Mr. Dan Harris: That's why I'm not saying who showed me.

I want to ask what your thoughts are with respect to the ability to patent software and business methods. It is something that has come up a few times in this committee. Then perhaps in the larger sense, to the other witnesses as well, I'd like to know what your thoughts would be on Canada creating an IP office, and possibly about having an online database of patents and whether this would be helpful to the system.

I'll start with RIM.

● (1245)

Mr. Robert Guay: Perhaps I can speak to your questions.

In terms of the ability to patent software and the ability to patent business methods, I think every country has its own set of rules when it comes to patent eligibility. Canada is no different. There have been some rules that have been put in place.

As far as RIM is concerned, a lot of what we do is built into the software. We also build tangible things that take the form of hardware, perhaps, but half of what we do is in the software. This expression that people use of patenting software and whether that is a good thing or a bad thing, in my view, is a dangerous generalization of what software can and could be. You really have to go to the particulars of each jurisdiction to see whether the system goes too far in allowing applicants to patent software-related inventions.

In the case of RIM, we're always on the lookout to protect the innovations we come up with. As far as we're concerned, the Canadian system is good in that regard, and we don't have much to say about it.

In terms of creating a database, which I thought was your other question, I believe CIPO already has a database of patents that can be consulted. Certainly it could use some improvements to make it easier to see what's in that database, to consult it and to do perhaps more detailed searches. That would certainly help. It would also help if CIPO brought their database infrastructure up to par with what is readily available from other patent offices around the world.

Mr. Dan Harris: It could be a good app, too.

Mr. Hamill, would you briefly comment?

Mr. Declan Hamill: Briefly, from our perspective there could be improvements made at CIPO. They do have a database, as Robert said, already. I think in terms of their qualitative performance—and this is anecdotal, so take it for what it is—I've heard that they are improving and they are trying to make changes, and I think they're doing fairly well.

The other issue you mentioned was the IP office idea. I've heard that a few times. I know that the U.S. has a sort of IP czar, and I'm not sure if that's what you were referring to.

Mr. Dan Harris: It was, more or less, but I think my time has run out.

The Chair: The time is pretty well over now, Mr. Hamill.

Mr. Declan Hamill: I'll just finish by asking, "To what end?" I think that's the question we'd have to ask. Is it really a necessary thing, or would it simply complicate matters? I don't know.

Mr. Dan Harris: I assume all of this could be shared with the committee after today.

The Chair: That's right.

Mr. Dan Harris: It would be like closing remarks.

The Chair: That's right. You can certainly have any kind of written submissions and send them to the clerk. That would be fine.

Go ahead, Mr. Carmichael, for five minutes.

Mr. John Carmichael: Thank you, Chair.

I have one question, and I'll try to condense it.

Morgan, I'd be remiss if I too didn't endorse your product. I would feel that I had missed an opportunity. We'll leave that where it is.

Chris, you talked earlier about leadership as a driver. We've had the opportunity to hear from a number of different educational institutions, and I've had the opportunity personally to visit a couple of incubators. I've seen a variety of different and very exciting environments, with different compensation plans or ownership plans for IP, etc.

One of the questions that came out of that is whether, from a commercialization perspective, researchers—those working in that environment—really know whether they're going to take their product to commercialization or whether they have that opportunity. I'm just wondering about it. From a leadership perspective, you talk about leadership as the driver being as important.... I'd like to go from Chris to Pierre to Brigitte.

How do we ensure that we're maximizing our reach into these incubators and pulling the very best and the brightest out, particularly when you talk about entrepreneurialism and a lot of these other factors that I think affect whether or not we're going to have success?

Mr. Chris Lumb: I would say that we don't try to reach in and pull out the best and the brightest, unless it's highly obvious. We're not prescient enough to know which entrepreneur at an early stage has an idea that will really make it. We always get surprised. In fact, most early-stage companies start with a vision and a plan that doesn't get realized. The successful ones realize their success in a way that's different from what they originally envisioned.

We think it's better to create an environment where we support a relatively larger number of entrepreneurs. We encourage people to come out of universities and the community into organizations like this. We provide them with the support they need. They pass capability tests along the way to determine how much support they get, but we don't really try to hand-pick winners. If we could, we wouldn't be running incubators.

● (1250)

Dr. Pierre Meulien: I very much agree with Chris. It's a brilliant question, because I think it hits on a key issue in terms of how we maximize what comes out. We run large-scale projects, and each one is $10 million over four years. The principal investigator might be very interested in publishing his best work, but might not necessarily be the person who is going to recognize an opportunity for commercialization.

That's why we need to be more proactive in putting entrepreneurs in there, embedding them in the projects and getting that value-added aspect. That's what we try to do in a much more proactive way.

With regard to the way we're organized, we have six genome centres across the country. Their job is not only to raise money—it's a 50-50 match—but since a lot of them have business development backgrounds, to go into those projects and pull the best things out.

Ms. Brigitte Nolet: For our companies and with our industry, because we're at the end of commercialization and bringing products to market, it has a lot to do with having these global development wings within our companies that actually go from country to country to look for the best and brightest research.

We have people in Canada who partner with our global headquarters, and they are willing to come to our countries or to different provinces to meet people who are doing this type of research.

We will often organize events, whether at a bioconference or specifically here in Canada, where we will have some of these global research business development folks come up to meet Canadian researchers and understand more about science. They will often sign confidentiality agreements between themselves so that they can further explore what might be under development and decide whether a partnership can be developed.

That is certainly a big part of where the larger companies go; it's trying to find the right research. We have people who specifically work to find the right “gems”, as we call them.

Mr. John Carmichael: When you are doing that on a global basis, are there one or two things that we as Canadians could do to enhance your shopping experience and your ability to bring it home to Canada?

Ms. Brigitte Nolet: The key is how innovative that invention is, whether it meets an unmet need, how unique it is, and whether that research makes sense.

A big part is the quality of the research. The other part, as we were discussing earlier, is about the business environment and whether there is enough stability in the market to be able to work that research in that market and be able to see it through to commercialization.

Our global CEO, the head of global pharma from Switzerland, was here yesterday. He gave a speech to our employee base here in Mississauga. When we asked him what he thought about pharma and what he thought about diagnostics, which is in Laval, he said the number one differentiating factor for the pharmaceutical side that he has noticed in his six months on the job is intellectual property.

The Chair: Thank you very much, Mr. Carmichael.

Now we'll go on to our last questioner, Mr. Regan, for five minutes.

Hon. Geoff Regan: Thank you, Mr. Chairman.

First let me mention that I'm going to ask the committee to take a moment at the beginning of our meeting on Thursday to consider the motion that I gave notice of this morning and that you're aware of, which would call on the committee to study the changes to the SR and ED program that are contained in parts 1 and 4 of Bill C-45, the second budget bill, which is before the House today.

The Chair: You had mentioned that to me. For logistics, Mr. Regan, are you okay if we do that at the end of the meeting? It's my understanding that we have a full panel of witnesses for that meeting.

Hon. Geoff Regan: I wouldn't necessarily see it taking very long. I'd prefer it at the beginning, but you're the chair.

The Chair: I will go with whatever the majority of the committee feels.

Hon. Geoff Regan: Thank you.

Meanwhile, I know that Mr. Guay has been dying for the last hour to answer the question that I began to ask, if he hasn't forgotten, about best practices for patent examination around the world that Mr. Elliott referred to.

● (1255)

Mr. Robert Guay: We do have some suggestions in mind. We didn't intend to discuss them today, simply because we didn't feel that we were getting into that level of detail.

As I mentioned earlier, in terms of general notions I think patent expertise is really important. What fits into that is having the right expertise to do the search and examination work that is required at CIPO. I think CIPO is doing a tremendous job in trying to improve their standards.

Ideally, a company like RIM would like to see CIPO considered as a top search authority internationally. I know there has been tremendous progress so far. CIPO probably needs to stay on that track and perhaps even go further than what has been accomplished so far. That's one area that potentially could benefit CIPO.

In terms of examination, I think CIPO has already done quite a bit of work in trying to leverage the examination work that's done by other patent offices around the world. I think that's really important.

We don't want CIPO to recreate the wheel. We don't want them to recreate the work that has been done by other patent offices around the world, the ones that are viewed as being at the top of the group in terms of the quality of the examination that's done. I think CIPO needs to continue and perhaps do even more leveraging of the examination work that is being done in other jurisdictions.

Hon. Geoff Regan: Thank you very much.

Mr. Lumb, you said that we're not prescient enough to know which entrepreneur will make it. Isn't that precisely the problem, when government says that instead of letting businesses decide when they're going to spend on R and D, we're going to decide or have a body that grants money for R and D?

Mr. Chris Lumb: That's another big question. If you're talking about reductions in SR and ED and more directed R and D, that's a pretty interesting question, and there's lots of room for debate about that.

At the micro level of early-stage companies, clearly we think that creating an environment that enables entrepreneurs to succeed is the right way to go. At the same time, it is okay for the country to have national priorities and direct R and D towards national priorities. As long as the government doesn't get carried away with that, it's an okay thing.

Hon. Geoff Regan: That's a pretty safe answer.

Mr. Chris Lumb: But it's fraught with implementation danger, I would say.

Hon. Geoff Regan: Okay. Speaking of that environment, Dr. Meulien, you talked about the innovation continuum and how we have to get that right. What does that require?

Dr. Pierre Meulien: It requires excellent science, which we have in Canada. There are now loads of reports that say we punch above our weight in terms of how good we are at research. It's the rest of the continuum that we're concerned about.

How risky does the VC community think we are? We know that we're risk-averse, so it's very difficult to get that first round of capital into a small SME that has some interesting stuff to do. It's that portion of the innovation continuum that we need to support. We need to take more risk. This would balance the SR and ED stuff. We need a balanced approach between direct and indirect investment.

Hon. Geoff Regan: In view of the problem that Mr. Lumb identified about determining who is going to succeed and picking the winners, the government has been particularly inept. How do you do that directed—

Dr. Pierre Meulien: I think there are ways. I believe a sector-specific analysis can help us here. It's self-serving, I know; we're in genomics, so we're very interested in bioeconomy.

Canada has a huge footprint in forests, fish, agriculture, etc. The OECD said that the future bioeconomy is going to be 4% of GDP in OECD countries by 2030. Canada should have a bigger part of that pie than anyone else. Sector-by-sector analysis will be key for that.

The Chair: Thank you, Dr. Meulien.

Go ahead, Mr. Lumb.

Mr. Chris Lumb: The way to do what you're suggesting in strategic sectors is to invest in infrastructure that can be widely used by both academic institutions and industry, not to choose particular company winners. That's the way to do it.

● (1300)

The Chair: Thank you very much.

Before I thank all the witnesses, Mr. Elliott, if there's ever a place where you can be shameless in promotion, it's Ottawa.

With that I'll say thanks to all the witnesses for all the knowledge you've provided to the committee.

The meeting is adjourned.

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