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Chair: Mr. Sean Casey



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• (1105)

[English]

The Chair (Mr. Sean Casey (Charlottetown, Lib.)): I call the meeting to order.

Welcome to meeting number 95 of the House of Commons Standing Committee on Health.

Today's meeting is taking place in a hybrid format, pursuant to the Standing Orders.

I just have a couple of comments for you, Dr. Humphreys, in participating remotely. You have, on your screen, the ability to use interpretation. You'll see on the bottom of your screen a choice of either floor, English or French. Please mute yourself when you're not speaking. Most of the time that will happen automatically, but if it doesn't, please tend to it, and refrain from taking any photos of your screen or any screenshots.

In accordance with the routine motion, I'm informing the committee that all remote participants have completed the required connection tests in advance of the meeting.

Pursuant to Standing Order 108(2) and the motion adopted on November 8, 2023, the committee is resuming its study of the opioid epidemic and the toxic drug crisis in Canada.

I would like to welcome our witnesses. We are joined by Dr. Keith Humphreys, professor of psychiatry, participating by video conference. We are also joined by Dr. Dan Werb, who is representing St. Michael's Hospital in Unity Health Toronto and is director of the Centre on Drug Policy Evaluation.

Thank you both for being here today.

We'll begin with opening statements of five minutes, starting with you, Dr. Humphreys.

Welcome to the committee. You have the floor.

Dr. Keith Humphreys (Professor of Psychiatry, As an Individual): Thank you, Chair.

Thank you for the opportunity to speak to your distinguished committee today.

My name is Keith Humphreys, and I am the Esther Ting memorial professor of psychiatry at Stanford University School of Medicine and a former White House drug policy adviser to U.S. presidents Bush and Obama.

Today I will briefly summarize some of the key conclusions of the Stanford-Lancet commission on the North American opioid crisis, which I chaired and which published its main conclusions in The Lancet medical journal last year.

The commission comprised North American clinicians, scholars and policy-makers who carefully studied the opioid crisis in the U.S. and Canada and made recommendations for how to resolve it.

In both of our countries, the opioid crisis originated in the health care system when insufficiently regulated pharmaceutical companies and health care providers increased per capita opioid prescribing by over 400% in a little over a decade. The fact that these drugs were legally made and of consistent, known quality did not stop them from addicting millions and killing hundreds of thousands of people across North America.

Some of those who suffered were patients. Others were individuals who gained access to medication prescribed for others that was given or sold to them through diversion. When prescription opioids are distributed in the community with little oversight, it is easy for each person who receives them not only to become addicted but also to initiate addiction in others.

To their credit, both the U.S. and Canada have subsequently taken significant steps to make opioid prescribing more judicious and safe. However, the expansion in the illicit drug markets of first heroin and later fentanyl has continued to cause great suffering, as you all well know.

The commission recommended the expansion of robust evidence-based prevention programs, targeting individuals not yet using opioids, coupled with treatment and harm reduction strategies for those who are already addicted. Many of these strategies are in place in multiple locations across Canada, including methadone maintenance clinics, syringe exchange services, drug courts, residential rehabilitation programs and initiatives that distribute the overdose rescue drug naloxone. The commission saw no reason that harm reduction and treatment programs could not be offered side by side. Promoting public health should be a shared journey and not a competition.

The commission also endorsed the goal of recovery from addiction for all services, meaning that while it was clearly valuable and moral to save someone's life today—for example, from an opioid overdose—it is important to not yield to the soft bigotry of low expectations by assuming that surviving from day to day is all an addicted person can be helped to achieve.

Tens of millions of people in North America have recovered from addiction, restoring their health and humanity and simultaneously benefiting their families and communities. Increasing the number of people who leave active addiction and enter recovery is a worthy goal to which all service providers and policy-makers should aspire. This is the animating spirit of the recovery-oriented system of care currently being built in Alberta, a destigmatizing and optimistic vision that I believe should be spread nationally.

The commission recognized that safe supply programs that distribute pharmaceutical opioids and other drugs in the community are a subject of significant discussion in Canada. I'll close by mentioning that commissioners were skeptical of such programs. The reason is simple: We have seen this movie before.

If handing out prescription opioids with minimal supervision was good for community health, neither the U.S. nor Canada would ever have had an opioid epidemic. The first decade of the crisis should have taught us that the fact that a drug is legally produced and of known quality is no barrier to it causing addiction and death.

Further, as the early years of the opioid crisis showed, it only takes a small amount of diversion to new users for an opioid distribution program to increase the prevalence of addiction. Even if we assume optimistically that 90% of people on the safe supply program take all provided drugs exactly as prescribed and that the other 10% divert only enough to each generate one or two new cases each of addiction each year, the number of addicted people doubles every five years.

The commission therefore recommended keeping faith with the prevention, treatment and harm reduction strategies I have just described, which have evidence of making our shared addiction crisis better rather than worse.

Thank you again for the opportunity to testify today. I look forward to your questions.

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

Next we're going to hear from Dr. Dan Werb from St. Michael's Unity Health Toronto.

Welcome to the committee, Dr. Werb. You have the floor.

Dr. Dan Werb (Director, Centre on Drug Policy Evaluation, St-Michael's Unity Health Toronto): Thank you for the opportunity to present today.

I am a social epidemiologist and the director of the Centre on Drug Policy Evaluation at St. Michael's Hospital in Toronto.

Canada's overdose epidemic is getting worse. This has understandably led to a questioning of the current response and a reflection on what must change for Canada to overcome this all-of-society crisis.

In that context, it's important to recognize where scientific consensus exists and where questions remain. I want to focus my comments on two contested areas: opioid agonist treatment and supervised consumption services.

There is scientific consensus that opioid agonist treatments like methadone, buprenorphine and others are the most effective approach we have for managing opioid use disorders and helping to stabilize people at risk of overdose.

Over three decades, there have been multiple Cochrane systematic reviews and meta-analyses, which are the gold standard for evidence-based medicine. They have demonstrated that this class of treatments, which includes providing opioids such as methadone, buprenorphine as well as diacetylmorphine and others, is effective at retaining people on treatment, reducing their use of non-medical opioids and reducing their risk of overdose.

Work that I led on a study funded by U.S. National Institute on Drug Abuse and the Canadian Institutes of Health Research across four countries also found that enrolment in opioid agonist treatment was associated with a reduced likelihood that people who injected drugs would assist others in initiating injection drug use, thereby potentially preventing people from becoming at risk of overdose.

However, questions remain regarding opioid agonist treatment. For example, how do we best reduce the barriers facing people at risk of overdose who could benefit from treatment? How do we scale up treatment to those who need it? What types of medications are most effective, given the extremely high potency of synthetic opioids like fentanyl, carfentanil and nitazene-class opioids? What kind of monitoring is required to ensure that patient needs are being met and medications are not diverted? Finally, how do we ensure that those who lose access to treatment don't end up reliant on the toxic drug supply and thereby at greater risk of overdose?

These questions are important to investigate, but they do not change the fact that opioid agonist treatment is our best clinical tool for managing opioid dependence and that recovery-based approaches have not demonstrated similar effectiveness. We should continue to focus our efforts on scaling up coverage to meet the needs of those who could benefit from this treatment while also ensuring that we evolve the design of programs to respond to these important questions.

Similarly, there is scientific consensus that supervised consumption services are effective at preventing people from dying of overdose. They are, in fact, the most effective structural intervention that we have. These services have generated evidence over four decades of operation and are now present in over one-third of all countries in the world. They have been shown to not only provide immediate life-saving responses to clients on site, but can also serve as pathways into the broader continuum of care for people who are at risk of overdose. This includes referring their clients to treatment, social services and clinical care.

However, questions have been raised about the limits of their impact. For example, some observers have questioned their cost-effectiveness, on the assumption that their impact is restricted only to the clients within the four walls of the sites themselves.

On that, I would note a study from my centre, led by Indhu Ram-mohan and currently in press at *The Lancet Public Health*, the world's leading peer-reviewed public health journal. It recently found that the implementation of nine supervised consumption sites in Toronto, starting in 2017, led to a 67% reduction in overdose mortality in surrounding areas—as far as five kilometres away—with significant positive rate reductions increasing year over year.

This study adds to data from Vancouver, as well as Sydney, Australia, which collectively demonstrates positive spillover effects of these sites across neighbourhoods.

If we're serious about ending the overdose epidemic, the chief question is how we best resource these services to fully integrate with the broader continuum of care, such as social services, including housing, clinical care and substance use treatment, so that they are as effective as possible in preventing overdose as well as in helping to connect individuals with services that they need.

• (1110)

Also, how do we best design and manage these sites to minimize potential public safety concerns for surrounding communities? Rather than seek to reduce the number or the funding of these sites, we need to resource and design them to meet the needs of those at greatest risk of death as well as those of the communities in which they are located.

This is why I am so troubled that supervised consumption sites are slated for closure in both Sudbury and Timmins, Ontario, and are under threat elsewhere. Given that northern Ontario's per capita overdose mortality rate is roughly three times the provincial average, we simply cannot afford to backslide, or more people will die.

The overdose epidemic will soon claim more Canadian lives than COVID-19, and mostly young lives. Let us recognize our collective national grief and transform it into a comprehensive evidence-based road map to end overdose based on the evidence of what works and what must be adapted. The only other option is more death.

Thank you.

• (1115)

The Chair: Thank you, Dr. Werb.

We're now going to begin with rounds of questions. We're going to start with the Conservatives and Ms. Goodridge.

Ms. Goodridge, welcome back. It's good to see you. You have the floor for the next six minutes.

Mrs. Laila Goodridge (Fort McMurray—Cold Lake, CPC): Thank you. That's wonderful. I appreciate it.

I want to thank both witnesses for providing testimony here today.

I'm going to start with you, Dr. Humphreys. I really appreciated your entire report in the Stanford-Lancet commission.

I'm going to pull one quote:

At the same time, evidence clearly shows the folly of assuming that population health inherently improves when health-care systems provide as many opioids as possible with as few possible regulatory constraints as possible. Policies that should attract skepticism include dispensing of hydromorphone from vending machines and prescribing a range of potent opioids and other drugs, ([i.e.] benzodiazepines [and] stimulants) to individuals with OUD in hopes of creating a safe addictive-drug supply and eliminating the supervision of methadone patients—i.e., converting the system to unmonitored, long-term prescriptions on a take-home basis.

I was wondering if you could expand on that a bit, because I think this is so much the crux of the issue we're in.

Dr. Keith Humphreys: The commission is very positive about medication-focused treatments in which people are monitored and supported. I mentioned methadone maintenance clinics and other opioid agonist therapies.

At the same time, the commission looked at the history of what happened in both of our countries around widespread prescription of opioids given with very little supervision in the community. We were assured by the companies and by the doctors that no harm would result. Prescriptions went up dramatically, and that is how this whole crisis started, so to say that now, for some reason, if we now distribute opioids without any supervision, the same thing won't happen again beggars belief. That contradicts our very recent historical experience, both in Canada and in the United States. We didn't recommend doing the same thing as before and expecting a different result.

Mrs. Laila Goodridge: I think that's an important piece to say. The entire idea.... Where so much of this opioid epidemic started was in fact from the OxyContin in the 1990s and 2000s, and the whole piece around diversion and the 400% increase in prescription opioids.

What do you think we could do better or differently? You touched on the Alberta model. I'm wondering if you could explain why you think Alberta is doing it right. I agree with you; I think Alberta is doing it wonderfully. I'm very proud of my province for taking this leadership. I'm just wondering if you could give some descriptions from a medical perspective as to why Alberta is leading in this.

Dr. Keith Humphreys: Alberta has made a major fiscal commitment to treatments of all sorts. They have expensive opioid agonist therapy. They have residential rehabilitation. They also have, by the way, very strong investments in harm reduction. What they are doing that is different from a lot of other places around the country—my country too—is that, first off, it is a system. All the parts are integrated together. There's a province-wide plan. There are steps of care that people go through so they can go on a pathway to come out at the end much better off than when they went in.

The second thing, as I mentioned, is this optimistic idea of recovery. You know, because addiction is a stigmatized condition, there are a number of people who would believe colloquially and say, in a cold way, “Well, once an addict, always an addict. They will never change. They can't get better.” The Albertan model believes that, no, that is not true, that in fact people can recover. We have millions of people who have recovered, who are productive citizens, who are connected to their families and who are people we prize and cherish in the community.

Setting that as the goal, as the aspiration, is extremely important, rather than saying that we're just going to manage this population, that we don't really expect much out of them and that at most we might be able to help them live until tomorrow, and that's all they can ever achieve. That becomes a self-fulfilling prophecy.

I admire that fact when I've gone up to Alberta and visited and have seen what they're doing, seen that vision that every single person is capable of having a much better life through recovery than they have right now.

Mrs. Laila Goodridge: You touched very briefly in your opening statement on how you were one of the policy drug advisers for both President Bush and President Obama, so you've crossed party lines when it comes to the policy piece.

What did you learn in those roles that you think Canada could and should adopt?

• (1120)

Dr. Keith Humphreys: Yes, I did that. I'm not a politician. I'm a policy adviser. Since the science stays the science, anyone who wants to adapt it to.... You can work with a broad range of people, and that's what I've tried to do.

What I saw in both of those administrations was that the commitment to treating addiction as a health problem was profound and important for both of those presidents. Although they differed in many ways, obviously, they both believed the health care system is something we can handle addiction through. Yes, we need law enforcement when someone does something violent because of their addiction, but, for the most part, we want people to be able to talk to their doctors about their addiction as they would talk to them about cancer or a heart problem. They both moved our system that way.

Canada, by the way, does better than the U.S. It gives health insurance to everyone, and I think that's great. We've made some progress towards this. We like to copy you.

I think the concept of trying to manage addiction as much as possible in health care.... You don't need public safety, unless a person does something that threatens another human being.

Mrs. Laila Goodridge: Well, thank you. We agree completely. From our perspective, at least on the Conservative benches, addiction is a health care issue. It needs to be treated as health care in order to move forward in destigmatizing those conversations so that people can have those conversations with their doctor and get the treatments they need in an appropriate manner. It's absolutely required.

I want to thank you for your leadership on this issue and for being part of this committee.

If you have anything further you'd like to add....

I was reading quite a bit about your 24-7 recovery model. I didn't, unfortunately, get an opportunity to ask you any questions about that. If you could perhaps send a brief to the committee on that, it would be much appreciated. Everyone else on the committee could learn a bit about that model as well.

Dr. Keith Humphreys: Thank you. I would be happy to do that.

The Chair: Thank you, Mrs. Goodridge. Thank you, Dr. Humphreys.

Dr. Hanley, go ahead, please, for six minutes.

Mr. Brendan Hanley (Yukon, Lib.): Thanks very much to both of you for your thoughtful presentations.

Dr. Humphreys, I want to briefly go back to you.

You have written a lot about prevention. You haven't focused on it in this talk, but I think you talk about prevention with some sense of urgency, including that you can't solve epidemics by concentrating on people at the extreme end.

Knowing there's a strong relationship between adverse childhood experiences or childhood trauma and addiction later in life, can you very briefly comment on the importance of upstream investments with that same sense of urgency we're thinking about at the other extreme?

Dr. Keith Humphreys: Thank you so much for raising that, Doctor.

You're absolutely right. Look at how HIV/AIDS and COVID were brought under control. It was through reducing new cases. We are not doing enough of that with addiction.

The commission recommended focusing particularly on kids in low-income environments and on generic investments in their well-being. These would be things like early education programs, nurse-family partnerships that help low-income parents-to-be with their first experience of birth and early child raising, and Communities That Care, which is a very well-studied program for kids a bit older, usually around 11, 12 or 13. It teaches them things like how to recognize and manage their own emotions, connect positively to other kids and connect to positive community organizations, whatever they may be—cultural, religious, artistic or athletic—which provide them with alternatives to substance use.

The evidence in those studies, which is very strong, shows that kids who get those investments not only have lower rates of drug, alcohol and tobacco use but are also more likely to stay in school. They're more likely to go to university someday. They're less likely to get involved in crime. They're less likely to be depressed. Making those investments—again, particularly for children who are growing up in adverse environments—is very critical, unless we all want to be having the same conversation 10 years from now, which I'm sure we don't.

The way we get out of that is through those preventive investments.

Mr. Brendan Hanley: Thank you very much.

I'll go to Dr. Werb on the prevention theme.

You've written about treatment as prevention. You've written a paper on this, and probably several. I wonder if you could briefly comment on what you mean by “treatment as prevention”.

Dr. Dan Werb: This is an adaptation of an approach that was used really successfully in the HIV space. Basically, you meet somebody's needs in terms of treatment, and you have positive knock-on effects in terms of the spread. In the case of HIV, you actually reduce the transmission of HIV among people if you provide them with medications like highly active antiretroviral therapies.

This is a slight adaptation of that approach, but of course drug use is a very, very different phenomenon. Essentially, we found in the work that I referred to in my opening remarks, funded by both NIDA in the United States and CIHR here in Canada, that people who were provided with opioid agonist treatments and who were injecting drugs were less likely to report that they had assisted in the initiation of other people into injection drug use. We know that injection drug use is often implicated in an increasing severity of opioid use disorder or other substance use disorders. We also found, for instance, that increasing the intensity of policing actually had the reverse effect. People who were encountering police more often were more likely to assist people in their initiation of injection drug use.

Let me just say that this is not to cast people who engage in this behaviour as predators or anything like that. There are many rational reasons that people engage in this kind of behaviour, but if we're looking to prevent the expansion of substance use behaviours that we think could potentially put people at higher risk of overdose and we rely on the evidence of interventions that can help meet people's needs themselves, we find that there may be this potential knock-on effect on other people being at risk.

On that I'll say that we have not seen the same evidence of the effectiveness of recovery-based treatment as opposed to opioid agonist treatment and pharmacotherapy treatment. I would point to a recent study—it will be coming out in *Drug and Alcohol Dependence* in January, but it's available online now—that compared overdose mortality among people who had been enrolled in methadone and buprenorphine with recovery-based non-pharmacotherapy treatments. It found that there was a reduced risk of overdose mortality among people who were enrolled in buprenorphine. However, when the authors looked at non-pharmacotherapy recov-

ery-based treatment, there was an increased risk, compared with the placebo, of overdose mortality.

On that note, I would say that the adoption of the Alberta model, while it is of course aspirational.... I think everybody in this field who devotes their time to it is aspirational and optimistic about the possibilities of people becoming well, managing their lives, being healthy and having social well-being. In Alberta, after the adoption of the Alberta model in mid-2019, there was actually a more than doubling of the overdose mortality rate in that province. There was an increase in overdose mortality basically everywhere in Canada, but the rate of increase in Alberta actually outpaced a lot of other places in Canada, so I would just offer a little bit of caution on that.

• (1125)

The Chair: Thank you, Dr. Werb.

[*Translation*]

Mr. Thériault, you have the floor for six minutes.

Mr. Luc Thériault (Montcalm, BQ): Since I am particularly interested in the topic, I would like to continue with it.

Mr. Werb, the people to my right believe that the implementation of the program to reduce harm and ensure a safer supply has had a negative effect. This morning, you are saying that, when urgent action is needed to prevent overdose deaths, this is the best approach possible. Yet you are critical of the model recommended by Dr. Humphreys.

Aside from the data you mentioned, in what way is that model problematic?

• (1130)

[*English*]

Dr. Dan Werb: I think it's just a matter of the evidence that is out there. The evidence on recovery-based non-pharmacotherapy treatments is just not as strong as the evidence on pharmacotherapy-based treatments. There's a reason that methadone and buprenorphine are on the WHO's list of essential medicines. It's because they are the most effective approaches we have to managing people who have opioid use disorders.

I share Dr. Humphreys' aspirational and optimistic sense of people's capacity and of helping people return to full lives after experiencing opioid use disorders. The fact is that these methadone and buprenorphine programs seem messy because people often will begin a program and will be enrolled in methadone and buprenorphine or another medication for opioid use disorder, and then they will stop the program. They will go back on. However, over time we don't see the scientific evidence out there suggesting that recovery is an effective approach. I think it can certainly be part of a comprehensive approach, but not at the expense of evidence-based pharmacotherapy clinical treatment.

I will say that one of the issues in Alberta is that the proportion of the population that actually has coverage for these types of medications—opioid agonist treatments or medications for opioid use disorder, or whatever term you want to call it—is actually quite a lot lower than in places such as B.C. and Ontario. When we're thinking about ways to prevent the overdose epidemic, I think we need to start with where the scientific evidence is and where the scientific consensus exists. That's not to say that recovery is not appropriate for some people; it's just to say that the scientific evidence—and that's what I follow—is much stronger with respect to these types of treatments versus recovery-based treatments.

[*Translation*]

Mr. Luc Thériault: Dr. Marie-Ève Goyer is the deputy medical head of specific homelessness services, dependency and mental health at CIUSS, the Centre intégré universitaire de santé et de services sociaux, Centre-Sud-de-l'Île-de-Montréal, Quebec. With regard to the diversion of drugs in her practices, she said that those who sell their doses often do so to buy food and clothing. She said it is troubling for her as a physician to see that her prescriptions are being used to fight poverty, but insists on calling things what they are.

What do you think of that statement?

[*English*]

Dr. Dan Werb: Absolutely. This is what we've seen over and over again. I run a cohort study of people who use drugs in Toronto. We followed them for about five years. There is evidence from cohort studies of people who use drugs in Vancouver and Montreal as well, and housing is one of the key factors that is placing people at risk of overdose.

It's interesting, because we see housing in the news every day, but rarely do people put the links together between the housing crisis that is affecting all of Canada and the fact that this is also really contributing to the overdose epidemic that we're experiencing as well. It's very difficult for people to engage in treatment if they are unhoused.

There is often a requirement that people—often an informal or an implicit requirement—be housed prior to receiving standard treatment because their clinicians believe that they may be too chaotic to actually be able to undertake or be retained in a treatment program. I think you really hit the nail on the head that housing goes hand in hand, and unfortunately when resources are being allocated towards ending the overdose epidemic, this issue of housing really does not come up.

We have a shelter system across Canada that is generally abstinence-based. This means that if somebody is managing their substance use through a methadone or buprenorphine program or some other program, but they're still potentially using a little bit of unregulated opioids, they're unable to stay in that shelter. There are some restrictions around even accessing low-barrier housing that are causing people to have to make a choice between remaining on treatment or being housed.

• (1135)

The Chair: Thank you, Dr. Werb.

Next is Mr. Johns. Go ahead, please, for six minutes.

Mr. Gord Johns (Courtenay—Alberni, NDP): Thank you both for being here. I really appreciate it.

I'm going to start with you, Dr. Humphreys.

You cited that prescribing for pain does have many ethical problems. I think that's not really what's happening with safe supply. Safe supply is prescribed to people who are already consuming large amounts of fentanyl. It's monitored very closely.

Dr. Humphreys, maybe you can explain what your experience is with safe supply programs. Have you spoken with any safe supply clinicians to understand their protocols, or are you basing your statements on others' anecdotal statements?

Dr. Keith Humphreys: That's a fair question.

I have talked to some people who do this. We do not have this in my country. You would be right to say that I'm looking at this from far away.

We do though, of course, have the experience of opioid prescribing. When it was OxyContin, many of those people getting it were addicted and did addict other people. If we wanted to know if that phenomenon had somehow stopped for some reason with safe supply—I don't know why we would assume that, but if we did—what we would do is run something that has not been done. There's nothing of this sort in the literature. You would run urine screens on every single person on safe supply every day, and any day when they did not have the drug supplied in their urine, you would ask them, “Where did that drug go?” Then you would find that person and see if they overdosed, fatally or non-fatally, or whether they had initiated an addiction with that medication.

That has not been done. That's what I would do if I were really monitoring this closely and I was concerned about harms to the community. We were very casual about that possibility for a very long time with OxyContin, and we regretted it. Because that has not been done, I am frankly worried that we're doing the same thing again.

Mr. Gord Johns: Dr. Humphreys, there have actually been over 20 published studies. What published peer-reviewed literature have you read to understand safer supply?

Dr. Keith Humphreys: What I just said is based on those studies. There are studies of people enrolled in the programs. There are not studies that track community effects of diversion, which is what you would do. When they did not take the medication, you would find out who took it, what happened to them, whether they overdosed fatally or non-fatally, and whether they initiated an addiction.

That is not in the literature. I've read all of the studies. There is no study like that.

Mr. Gord Johns: I'm going to come back to you in a minute.

Dr. Werb, I'm going to go to you.

What have you observed in terms of safe supply and how it's been described in the media or by critics, versus how safe supply actually operates? Can you tell us where the media and critics are misrepresenting the evidence on safe supply?

Dr. Dan Werb: Sure.

I don't know if anyone is wilfully trying to misinterpret or misrepresent anything. I will note that I'm the principal investigator of a national evaluation of safer supply pilot programs in Canada, which is funded by Health Canada and run by the Canadian Institutes of Health Research. I can speak a little bit about that.

One of the issues that I find troubling is that there is a conflation of quite a number of different approaches into this idea or term of "safer supply". Sometimes when people are talking about safer supply, they're talking about regulating the currently unregulated drug market, which I would be happy to talk about. Sometimes they're talking about prescribed clinical guidelines, which are in place in British Columbia. Sometimes they're talking about pilot programs, like the ones that our national evaluation is studying, which are integrated into existing harm reduction and social care programs. All of these programs are very different.

In these programs generally, safer supply is a component of a broader comprehensive approach to meeting the needs of clients, members or patients. All of these programs refer to these people differently. I would echo Dr. Humphreys that the evidence is still emerging. These are programs that have been in place for only two to three years.

I really want to make the point here that the prescribed safer supply guidelines in B.C. are quite different. These are just the opportunity for clinicians to provide a particular type of medications for a particular condition among their patients, which is different from these wraparound, integrated pilot programs.

• (1140)

Mr. Gord Johns: We know OxyContin is not safe supply. OxyContin caused a fraction of overdose deaths compared to fentanyl.

We saw overdose deaths in the U.S. grow 275% between 2016-2021, more than in Canada, where they doubled.

We can look at Alberta's record. In April, it had a record number of overdoses. Lethbridge already surpassed it by August this year, and last year was a record year. Lethbridge has closed its safe consumption sites.

Can you talk about the effectiveness of harm reduction interventions like drug checking, supervised safe consumption sites, and how many lives are saved?

Dr. Dan Werb: Sure. In the case of Alberta, only about 5% of fatal overdoses have prescribed opioids implicated in them.

I will echo what I said earlier around supervised consumption sites. We have worked with the chief coroner's office of Ontario to map overdose mortality across the city of Toronto year over year. What we found was pretty remarkable. Up to five kilometres away, we saw about a two-thirds reduction in the rate of overdose mortality across neighbourhoods. We're trying to figure out why that is, because that's a really powerful effect.

We think that beyond people's access to these programs on site, they are also hubs of harm reduction services. These are places where people feel safe, where they can pick up naloxone and where they are provided with safer education about how to avoid overdoses. That's really critical.

The Chair: Thank you, Dr. Werb.

We're out of time for this round of questions, but I'm sure there will be further opportunities to reinforce the point.

Next we have Mr. Majumdar for five minutes, please.

Mr. Shivaloy Majumdar (Calgary Heritage, CPC): Thank you very much, and thank you to both witnesses for appearing before this committee.

I will direct my first questions to Dr. Humphreys if that's okay.

In our committee, there has been a lot of discussion about the Portugal model, often held up as a beacon of hope for Canada and for others. Based on the survey of literature that you have been able to take into account, is the Portugal model comparable to Canada's? Is this comparing apples to apples?

Dr. Keith Humphreys: I have read that literature and I have also spent a lot of time in Portugal. Actually, I was just talking to the director of that program a week ago.

Portugal is going through a hard time right now. Overdoses are at about a 12-year high. At least early on, the program did seem to have some benefits from the great expansion of services around addiction. The HIV rate among people who used drugs dropped, and that was certainly very positive.

Portugal also has dissuasion committees, which are able to put some pressure on people who have problematic drug problems to change their behaviour. That is something that was often forgotten when people talked about the Portugal model. They think it's libertarian, and everyone does whatever they want. That is really not the case.

A big difference that goes beyond policy is that the cultures are very different. Portugal is different from both the U.S. and Canada in that it is a country that has a very strong Catholic history, a very communitarian society and a lot of social control on behaviour. When it backed off from the legal control, there was still tremendous social control from families and communities. There was disapproval of drug use, which is particularly less common in the western U.S. and western Canada.

Places that have tried to copy that approach—for example, the city near where I live, which is San Francisco—as well as the cities of Portland, Seattle, and Vancouver haven't had the same results as Portugal. With the same policies and different cultures, you get different results.

• (1145)

Mr. Shuvaloy Majumdar: Thank you for that.

I would like to pick up on one of the items you mentioned, which was the increased overdoses in Portugal. Could you describe what the origin story for that might be?

Dr. Keith Humphreys: There are a couple of theories about it. One is the financial crisis part of the services. Portugal did cut services pretty dramatically. That cannot help.

It is also true that the EU is open, so people can move now from all over the EU to different places. Over time, places that have liberal drug regimes may attract people who like to use drugs or like to be able to do so without any hindrance. We see that, certainly, in San Francisco. I can say that for sure. That may also have made the drug problem more complicated as people moved in to use drugs.

Mr. Shuvaloy Majumdar: I have a quick question. They're not dealing with a fentanyl crisis like we are in Canada, are they?

Dr. Keith Humphreys: They aren't yet, but fentanyls and nitazenes are arriving in Europe. There was a big bust the other day in Britain. There have been a few cases around Europe. All my European colleagues are quite frightened about the arrival of synthetic opioids of some form in the coming 18 months, because the Afghan heroin supply is being restricted by the Taliban right now.

Mr. Shuvaloy Majumdar: If I could bring that in to Canada, in your professional opinion, do you believe that the current government's approach on safe supply policies is working?

Dr. Keith Humphreys: No. I wouldn't expect it to work, because it's essentially a replication of the policies that we had in the 2000s of distributing opioids in the community and trusting that because they are legal and because they're of known quantity, nothing bad will happen. It will take a while to see that.

I realize that the discussion is on overdose, but you also have to think about addiction. If you're generating new cases of addiction, that will not show up in overdoses for five or 10 years, but it could

definitely be happening. That is exactly what happened during the era of OxyContin.

I would point out, by the way, that the main drug being used, hydromorphone, is a very strong opioid. It is not a low-strength drug by any means. It can certainly be addictive, particularly to novice users. That's why it would be very important to evaluate whether any of those drugs are being diverted to, for example, people who are younger as their first drug experience and their first experience getting access. Whether or not that's happening is something that I think should be studied.

Mr. Shuvaloy Majumdar: In this context, has there been any evidence from jurisdictions to support the claim that safe supply contributes to a positive result—less crime and disorder, more people transitioning to the workforce, fewer drugs flooding illicit markets? Have you seen any evidence of that yet?

The Chair: Give a brief response, please, Dr. Humphreys.

Dr. Keith Humphreys: In the literature, there are certainly people on safe supply who report appreciating the program and valuing the program. They still do use a lot of illicit drugs. I don't think that there's anything linking it to broader community effects such as employment or the drug supply or addiction and overdose occurring among people not enrolled in safe supply.

The Chair: Thank you.

Next is Dr. Powlowski, please, for five minutes.

Mr. Marcus Powlowski (Thunder Bay—Rainy River, Lib.): My initial question is for Dr. Humphreys.

I share a bit of skepticism about the safe supply position for the same reasons that you've already talked about. However, do you not think that it's possible that there is a certain subset of the population that would benefit from safe supply? Some people are dependent on narcotics and perhaps dependent on a fixed level of narcotics. Then there is the fact that they can't get the narcotics, so they buy them on the street, where often they're contaminated with fentanyl or carfentanyl.

Do you think it's possible—although, perhaps in general, safe supply is not a good idea for everybody—that there may be a subset of the population for which, in fact, it is a good idea?

Dr. Keith Humphreys: Thank you for that question, Doctor. It gives me a chance to clarify something that I think has been misunderstood, perhaps.

The commission is very positive about opioid agonist therapy, like methadone, like buprenorphine. In Canada, you also have slow-release oral morphine and hydromorphone, which we don't have. You have diacetylmorphine too. We're very positive about the effects of all those, and for multiple reasons.

Yes, people are avoiding the illicit supply, but it's also because of the stability they provide and the links that they provide to other health services. All those things are true.

When you start distributing, though, without any real monitoring in a community, you have to think not just about that person, even if they benefit a bit, but also about everybody else. If those drugs are going out and harming other people, the net effect could be negative, even though there is a particular person who benefits from them.

That's why doing very careful audits of where these drugs are actually going—in other words, looking at the people around the people in these programs—is really important before we make a judgment, which you can't really make just based on what that person says and experiences.

• (1150)

Mr. Marcus Powlowski: I'd like to turn to a second issue: safe injection sites. I'd like to ask both of you about this. I think you both agree that they reduce mortality.

Dr. Werb, you talked about the potential closing of two safe injection sites in northern Ontario. I'm the member of Parliament for Thunder Bay—Rainy River. I would say—and I want you to address this issue—that there is a very heavy component of NIM-BY—“not in my backyard”—with regard to safe injection sites. I have to say that I have a certain amount of sympathy for it. Would I be happy if a safe injection site were to open right next door to where I live? Probably not, especially when you combine it with decriminalization. What you tend to see around those sites is an accumulation of people selling drugs. Very rapidly, those become not very desirable parts of town.

Although in general there seems to be good evidence that these are a good idea, how do we address the problem of the crime and the social problems that tend to accumulate around those centres?

Perhaps I will start with Dr. Werb.

Dr. Dan Werb: Thanks. It's such a good question.

I'll just note that these sites are implemented in places where there is drug-related activity, right? That's generally where they are placed, so that they can benefit as many people as possible. I think it's important to remember that.

We've been looking at this question. In Toronto, there was some violence—unfortunately, a fatal shooting—less than a hundred metres from a certain supervised consumption site. We worked with the coroner's office to analyze spatial data on homicides, fatal shootings, that could be potentially related to drug market activity across 10 years in Toronto. What we found is that there's no association between the location of homicides and the location of these sites.

On that at least, I think there's evidence from Toronto suggesting that these sites aren't necessarily attracting increased fatal violence. We're still going to look at other measures of violence to see whether they agree with our initial analysis.

I also understand people's desire to ensure that the programs in their communities are run and managed as well as they possibly can

be. I fully understand people being concerned about their public safety.

What I found galvanizing is that the conversation that has happened, at least in Toronto around this issue, hasn't gone to the extreme of saying that we need to close these sites. A lot of the conversation is about how we design them and how we can better manage these sites.

Unfortunately, what happens is that these sites are designed for the estimated number of clients they're going to have, and then budgets are often cut and resources aren't provided for them to provide the services to the number of clients they actually have, so you're starting at a deficit. You have waiting lists. People show up and then they leave without actually being able to access the services.

I think a key component here needs to be resourcing these services sufficiently so that they can meet the needs of their client base.

The Chair: Thank you, Dr. Werb.

[*Translation*]

Mr. Thériault, you have the floor for two and a half minutes.

Mr. Luc Thériault: In the same *Le Devoir* article by Jessica Nadeau from December 9, which is quite recent, Dr. Goyer spoke to the journalist about what is on the illicit drug market. She referred to the elephant in the room, stating in particular that the illicit market is creating increasingly complex and dangerous substances, at a phenomenal rate.

Here is part of what Dr. Goyer said, in translation:

I had never seen this in my career: the illicit market is producing substances that do not exist in medicine. Before, one person made fentanyl patches, while someone else made fentanyl powder. One person made Ativan, someone else made Ativan and added a bit of sugar and caffeine to make it cheaper. But things have changed now. The illicit market has begun producing things itself and mixing substances. It has become a very intense Russian roulette that we have never seen before, and we are faced with the complex task of managing overdoses, withdrawals and treatments when we no longer really know what we are actually treating.

What do you think of that statement? Have you seen that?

• (1155)

[*English*]

Dr. Dan Werb: Yes. Look, the evolution of the unregulated drug market is predictably unpredictable. I think we need to trace this back to the late 19th century. We had opium, then laudanum, then heroin, then fentanyl, then carfentanil and then nitazene-class opioids. Every step of the way, as there's been more pressure placed on drug markets, unregulated drug markets have adapted and evolved.

It's like any other market. I think of the smart phone market. There's pressure for evolution in markets. That's why we started with giant phones that couldn't do anything, and now we have smaller and smaller phones with incredible computing power.

Unfortunately, what we have right now is pressure from law enforcement and seizures that are incentivizing innovation on the part of drug trafficking organizations. If we want to address overdose in a meaningful, structural, long-term and sustainable way, I think we need to look at the source of the innovation that's happening in the unregulated drug market and think about structural ways that we can apply some stasis to the market.

I'll leave it there.

The Chair: Thank you, Dr. Werb.

The last round of questions for this panel will come from Mr. Johns. Mr. Johns, you have the next two and a half minutes.

Mr. Gord Johns: Thank you, Mr. Chair.

Dr. Humphreys, are you aware of the data showing that overdoses and infections increased exponentially in 2013 or so with the introduction of fentanyl, and are you aware that the overdoses and infections that occurred with OxyContin occurred at a fraction of the rate that occurred with fentanyl?

Dr. Keith Humphreys: Fentanyl is definitely more likely to cause an overdose than OxyContin.

Since we're also concerned about addiction, far more people got addicted to OxyContin than to fentanyl. Both things are desirable to avoid.

Mr. Gord Johns: In terms of the protocols and structures, they are wildly different. In terms of safe supply, in the case of OxyContin they are daily dispensed and monitored weekly. I am wondering how you can compare the two in terms of safe supply protocols and structure.

I'll just state that methadone retention rates are 50% at six months and buprenorphine is at 40%. Safe supply retention is greater than 90%. Are you aware of these impacts? You stated that there are no protocols to monitor diversion earlier, that you hadn't seen any, and I know the safe supply clinics have a heavy amount of monitoring for diversion, so I'm just concerned about your knowledge around safe supply and if that's complete or not.

Dr. Keith Humphreys: What I said—and there's no evidence to contradict it—is that when people test negative for the drugs that they're provided, what no one has done is to go find the person to whom those drugs went and assess their well-being. That's the kind of monitoring you would need to do to determine whether or not these are doing community harm or not. That has not been done. There is no study like that in the literature. That's why I call attention to it as an area for audit.

Mr. Gord Johns: Can you talk about how many times it takes people to go through recovery treatment before they stay sober in the long term? What is the success rate of people staying sober after one year and five years? After treatment, what happens? What are people supposed to do if there's no housing?

That's for Dr. Werb.

Dr. Dan Werb: I can say there is good evidence suggesting that people on average engage in, say, a methadone program five to seven times before they're able to manage their substance use long term.

There is evidence on the recovery side. For example, there was a randomized clinical trial of buprenorphine and some counselling, versus just counselling and no pharmacotherapies. It found that the mean abstinence rate for the counselling group was 5%, compared with 43% in the buprenorphine group. Again, there is really good evidence to suggest that pharmacotherapies can provide more effective abstinence compared to recovery-oriented non-pharmacotherapy treatments.

Again, I would reiterate that the catch-22 that happens where people can't find housing because they're using substances but can't access treatment because they don't have housing is a major issue that is going to prolong the life cycle of this overdose epidemic.

• (1200)

The Chair: Thank you, Dr. Werb.

Mr. Gord Johns: Mr. Werb talked earlier about a study from the Office of the Chief Coroner for Ontario to map out overdose mortality in the radius around supervised consumption sites. Would it be the will of the committee to ask him to table that report to the committee within two weeks? Would that be possible??

Some hon. members: Agreed.

The Chair: Thank you, Mr. Johns. You took the words right out of my mouth.

Go ahead, Dr. Powlowski.

Mr. Marcus Powlowski: Could I ask both witnesses to please submit any studies that they think are particularly relevant to this study?

The Chair: I'm redundant here now, so let me just say thank you.

This has been a fascinating discussion. We very much appreciate your being here with us and sharing your expertise. There was easily enough interest and enough questions to keep you here longer, and that's probably the reason that we'd like to see a follow-up in writing.

Once again, thank you, and I wish you all the best for the holiday season.

Colleagues, we're going to suspend to allow the next panel to get set up. We are suspended for five minutes.

• (1200)

(Pause)

• (1205)

The Chair: I call the meeting back to order.

Pursuant to Standing Order 108(2) and the motion adopted on November 8, 2023, the committee is resuming its study of the government's advance purchase agreement for vaccines with Medicago.

I would like to welcome our witnesses. Representing Medicago Inc., we have Toshifumi Tada, president and chief executive officer, and Sarah Marquis, vice-president for legal affairs and corporate secretary.

I thank you both for taking the time to appear today. You have up to five minutes for an opening statement. You have the floor.

Mr. Toshifumi Tada (President and Chief Executive Officer, Medicago Inc.): Thank you, Mr. Chair.

First of all, ladies and gentlemen, I appreciate this invitation to attend the House of Commons Standing Committee on Health today.

My name is Toshifumi Tada. I am president and CEO of Medicago. I'm accompanied today by Sarah Marquis, who is vice-president for legal affairs and a corporate secretary of Medicago.

Medicago was a Canadian biotechnology and biopharmaceutical company specialized in the discovery, development and commercialization of virus-like particles that we call VLPs, using plants as bioreactors to produce protein-based vaccine candidates. Medicago's VLP technology was born out of a research partnership between Laval University and Agriculture Canada in 1997.

Medicago's technology evolved from research and development to having its first VLP vaccine approved by Health Canada in February 2022. It was the first plant-based VLP vaccine approved for human use in the world.

In the clinical trials, our vaccine was found to be 71% effective against symptomatic infection and 100% effective against severe disease caused by the coronavirus. These studies were conducted while there were multiple variants in circulation. I will be clear that these results could only be achieved with the tireless dedication of our employees and the scientific achievement and expertise developed in Canada. Medicago was very proud of this scientific achievement.

Although the science was a success, we experienced challenges in transforming to commercial, scaled-up production. Our experts believed we could fix the issues, but it would take time. At the same time, however, the vaccine landscape was evolving very rapidly, with more and more variants arising. We assessed that significant additional research and development investment would be needed.

This is why our shareholder, Mitsubishi Chemical Group, made the business decision to cease the operations of Medicago. This was a very difficult decision to make, both on a business and human level.

Medicago had been in Quebec for more than 20 years, and at the time of Mitsubishi Chemical's announcement, we had nearly 600 employees, both in Canada and the United States, with 378 employees in Quebec City. The company had strong ties to the local community, and our employees believed in Medicago's technology and its public health mission.

As part of the windup activities at Medicago, we ensured that all employees received the full amount of compensation they were entitled to. In addition, we provided full support and outplacement

services, including organizing job fairs for our employees, in collaboration with the Quebec government, to help our employees find their next employer.

We also worked with financial and legal advisers to terminate our agreements with our service providers, to settle our debts and to sell our business operations and assets. This led to several transactions, two of which were with the Government of Canada.

The first one was the advance purchase agreement between Medicago and PSPC, signed in November 2020. Under this agreement, Medicago had received a non-refundable advance payment of \$150 million for initiating the manufacturing of its COVID-19 vaccine. This agreement was terminated by mutual consent in June 2023. Medicago was released of its obligations, as it met all the terms under the agreement.

The second transaction was the strategic innovation fund—or SIF—agreement with ISED. This was recently terminated. Under this agreement, Medicago was awarded contribution offers for the development of our COVID-19 vaccine and the establishment of a large-scale manufacturing facility in Quebec.

• (1210)

As part of the termination agreement, we reimbursed the amounts owed to the Canadian government, which included \$40 million in cash, and we transferred our key research and development assets, such as our manufacturing pilot plant, intellectual property assets, and equipment to Aramis Biotechnologies, a new local company established by former employees of Medicago.

I would be happy to answer any questions the committee may have at this point in time. It is possible that I may ask Sarah Marquis, my colleague, to answer certain questions that fall within her field of expertise.

Mr. Chairman, that concludes my opening statement. Thank you.

The Chair: Thank you, Mr. Tada.

We'll begin our round of questions with the Conservatives. Mr. Perkins, you have six minutes, please.

Mr. Rick Perkins (South Shore—St. Margarets, CPC): Thank you, Mr. Chair.

Thank you to the witnesses.

Mr. Tada, how many contracts were signed with the government? There was the one for \$200 million initially, for both the development of the vaccine and some plant improvements. What other contracts were signed?

Mr. Toshifumi Tada: We had two contracts. We had the APA, or advance purchase agreement, with PSPC. Second, we had the SIF agreement with ISED. Those are the two contracts we had with the federal Government of Canada.

Mr. Rick Perkins: First, on the SIF program from ISED, that was for \$200 million. I believe, from the reports I've read, that in the end only \$173 million was used. Is that correct, or was the full \$200 million used?

Mr. Toshifumi Tada: That contract contributed up to \$200 million to Medicago to support our development of the COVID-19 vaccine and the establishment of a manufacturing facility.

Mr. Rick Perkins: I understand that. How much of that was used—all of it? Did you receive all \$200 million?

Mr. Toshifumi Tada: I don't comment on the details, but the agreement is up to \$200 million.

• (1215)

Mr. Rick Perkins: You won't tell this committee of Parliament how much money the Government of Canada actually in the end transferred to you?

Mr. Toshifumi Tada: I have confidentiality obligations, sir.

Mr. Rick Perkins: Well, it's been reported as \$173 million, but since you won't answer, I'll leave it at \$200 million.

In addition to that, you had the purchase agreement for, I think, 76 million doses of the vaccine, which is estimated to be, if it had been delivered, about \$1.5 million.

Mr. Toshifumi Tada: That is under the APA agreement with PSPC, which says that 20 million doses were ordered and that the government has an option to order an additional 56 million.

Mr. Rick Perkins: So it's for 76 million. Again, you'll probably say it's confidential, but the price that is commonly out there is \$20 a dose, so that's \$1.5 million.

The recent announcement by the government to pay Medicago \$150 million for, I believe, no doses delivered is out of that contract, correct? The government got that obligation from that contract, correct?

Mr. Toshifumi Tada: For us, the \$150 million was a non-refundable advance payment, which we actually used to manufacture vaccines at risk. This was the original concept.

Mr. Rick Perkins: But you didn't deliver a single vial of vaccines to the Government of Canada. Is that correct?

Mr. Toshifumi Tada: It is correct. We—

Mr. Rick Perkins: Okay. Thank you.

Mr. Toshifumi Tada: We didn't deliver any of the doses.

Mr. Rick Perkins: The first contract was signed—the first one, for the SIF contract—in October 2020. Five days later, the advance purchase sale was done for 76 million doses of a vaccine that you hadn't yet invented.

The government, which I know is not your area, had already signed, through about three months, other contracts for 190 million doses of other vaccines, of which they used only half. When you got approval—congratulations on getting this great scientific breakthrough of a non-mRNA vaccine with such efficacy—from Health Canada in February 2022, I believe, was the government not in an obligation to now start purchasing that production?

Mr. Toshifumi Tada: You understand correctly that we obtained approval of the COVID-19 vaccine in February 2022. The APA with PSPC initially said that our delivery of the 20 million doses was up to the end of 2021. Because of the delay in the approval, we negotiated in good faith with the PSPC. We agreed to amend the

agreement so that delivery of the first 20 million doses could be made by the end of 2022, which was 10 months after the approval.

Mr. Rick Perkins: Right. Then why didn't any of those doses flow to the Government of Canada after it was approved?

Mr. Toshifumi Tada: After the approval, we faced challenges in transitioning to a commercial scale-up of production. We started to work on it, and our experts believed we would be able to fix it, but we knew it would take time.

Mr. Rick Perkins: The health minister here at committee last week said that the reason was primarily because they had enough doses of other vaccines—

Mr. Toshifumi Tada: Yes, because I haven't finished—

Mr. Rick Perkins: Let me finish.

He said that they had enough doses of other vaccines from other manufacturers, so they didn't need this vaccine anymore, and they actually had another non-mRNA vaccine that they had bought and acquired. Is that correct?

Mr. Toshifumi Tada: Yes. I will answer that one.

While we worked on our internal challenges, we started to observe the market evolving a lot. We started to see a lot of new variants arising that made our vaccine irrelevant. Market demands shifted to bivalent vaccines that included omicron, which is not the case for our vaccine.

At the time—

Mr. Rick Perkins: The delay by Health Canada made your vaccine no longer relevant to the subsequent strains of COVID.

Mr. Toshifumi Tada: Therefore, we understood that the Canadian government needed to—

Mr. Rick Perkins: Just hang on. I'm speaking.

The result was that \$150 million of taxpayer money had to flow to you and to Medicago for a vaccine that was now outdated, and that's why they didn't receive any products.

Mr. Toshifumi Tada: At that time, the Canadian government needed to readjust their vaccine inventory position in light of the government evolving that position, so they decided not to take our vaccine, given the market situation they faced then.

The \$150 million advance payment was non-refundable because it was funded to our manufacturing of the vaccine at risk, sir. We purchased raw materials. We produced many batches. We hired additional workforce to support increased capacities before the approval was given—

Mr. Rick Perkins: I get that. You didn't deliver a single vial—

• (1220)

The Chair: That's all the time for this round.

Mr. Toshifumi Tada: Again, I want to confirm that the \$150-million advance payment was to finance our manufacturing at risk before the approval was given.

The Chair: Thank you, Mr. Tada.

Next we're going to Ms. Sidhu, please, for six minutes.

Ms. Sonia Sidhu (Brampton South, Lib.): Thank you, Mr. Chair.

Thank you, Mr. Tada and Ms. Marquis, for being with us.

Mr. Tada, critics of the deal may be concerned that this deal lost money, but that is not true. We saw the evolution of a vaccine from scratch. We saw the growth of a sector and the development of a talent pipeline.

Can you speak a little bit about what the values of the investment in Medicago were and the importance of the government participating in de-risking these kinds of investments?

Mr. Toshifumi Tada: Thank you very much for the question.

Thanks to the support and contribution from the government, we advanced technology and science that was born in Canada, by a lot. That resulted in our approval for the COVID-19 vaccine. This is the world's first plant-based VLP vaccine for human use.

Together with our shareholders' investments, the government's contribution was also helpful to provide and advance these technological and scientific achievements. We don't call it a waste. We advanced and we showed significant science advancement for Canada.

Given the situation we were faced with, we had a discussion with ISED, and we agreed by mutual consent to terminate the agreement. We settled the agreement by repaying \$14 million in cash and transfers of our key R and D assets, including a pilot plant, IP, assets and equipment to a Canadian company, so our IP will remain in Canada in that sense.

Ms. Sonia Sidhu: Thank you.

Medicago recently reached an agreement with Aramis Biotechnologies, a Canadian company based in Quebec City, to transfer key medical research and development assets, intellectual property and equipment.

Could you let us know exactly what medical research was transferred to this Canadian company? You already told us that the Medicago employees are working with Aramis, right?

Mr. Toshifumi Tada: I have a confidential obligation not to disclose the details of the transaction with Aramis, but I can confirm that we transferred our R and D manufacturing pilot plant in Quebec City, our equipment and our IP, at the request of ISED.

Ms. Sonia Sidhu: Thank you.

We all know Medicago had really promising research on unique COVID-19 vaccines. Those were plant-based vaccines that didn't contain eggs. Can you expand on why plant-based vaccine technology is important and how this kind of technology could be used for future vaccine development?

Mr. Toshifumi Tada: Thank you very much.

We could not successfully launch a COVID-19 vaccine under the very unprecedented pandemic situation, but we still believe the scientific potential of those plant-based vaccines. For example, the

dominant COVID-19 vaccines are messenger RNA vaccines, but having an alternative, such as protein-based vaccines, including our plant-based VLP vaccine, would benefit people's health because it offers another alternative.

We still believe in our technologies. Unfortunately, we are winding up operations because of business decisions, but because we do have scientific achievement and we do have our people, our employees who made it happen, hopefully these technologies can remain in Canada for future scientific expansion.

Ms. Sonia Sidhu: Mr. Tada, I'll go back to the agreement question again. This agreement enables Canada to maintain an important domestic asset in the Canadian life sciences sector, growing and diversifying the national pipeline of vaccine technologies and providing Canadians with a safe and effective platform that can complement existing and future vaccine products and capabilities. This is why we worked closely with MCG to ensure that Medicago's science, intellectual property and core assets remained in Canada and that its competencies and capabilities are retained in our country.

Could you speak to the importance of retaining intangible assets like IP in Canada?

• (1225)

Mr. Toshifumi Tada: Yes, thank you very much.

Our shareholder, Mitsubishi Chemical, had to make a difficult business decision. This is the business decision that was made. However, it wanted to be as co-operative as possible with the Canadian government so that we can have win-win solutions. As a result of that, we agreed with ISED to terminate the agreement, but we settled by transferring the key assets we had, which were the R and D pilot plant, the equipment and the IP to a Canadian company at the request of ISED.

I believe this fulfilled the Canadian government's requirements, and we also wanted to make that business decision and execute it as soon as possible.

Ms. Sonia Sidhu: I have two more questions on the plant-based production technology. Are there any other ways this technology can be used to fight other diseases? Was your team working on any other drugs or vaccines?

Mr. Toshifumi Tada: Medicago is winding up now, so we are not working on that at this point in time. However, if Aramis continues to advance technologies leveraging our medical achievements, hopefully it can find some new solutions, new potential and new applications for the VLP plant-based technologies.

The Chair: Thank you, Mr. Tada and Ms. Sidhu.

[Translation]

Ms. Vignola, you have the floor for six minutes.

Mrs. Julie Vignola (Beauport—Limoilou, BQ): Thank you very much, Mr. Chair.

Medicago had a plant in North Carolina. Was the technology platform used in that plant transferred to Aramis Biotechnology in Quebec?

[English]

Mr. Toshifumi Tada: Thank you for the question.

The factory we have in North Carolina is a leased asset, so it is not a part of any transaction with Aramis.

[Translation]

Mrs. Julie Vignola: Okay, thank you.

Initially, Medicago specialized in developing vaccines for H1N1, influenza and the terrible Ebola virus.

If Medicago had focused on those viruses during the pandemic, would we be in our current position with an empty plant in the D'Estimauville sector, a factory worth millions of dollars, and a dis-banded company?

[English]

Mr. Toshifumi Tada: Yes. Previously, we worked on both viruses before. Now, because of the business decision by our shareholders, we are winding up, and we transferred some key assets to Aramis, so hopefully.... I'm not in a position to make any comments on Aramis's business plans and strategies, but it may or may not take those products as its strategies.

[Translation]

Mrs. Julie Vignola: My question was hypothetical. Let me rephrase it.

If Medicago had not offered to help the Government of Canada, in spite of all the risks involved, and had instead focused on the vaccines already being developed, would we be in the same position as we are now?

[English]

Mr. Toshifumi Tada: It's very difficult to answer a hypothetical question, so I'll refrain from commenting on that. I'm sorry for that.

[Translation]

Mrs. Julie Vignola: Okay.

Why was the Mitsubishi Chemical Group interested in Medicago initially?

[English]

Mr. Toshifumi Tada: Mitsubishi Tanabe Pharma Corporation acquired 60% of Medicago in 2013, 10 years ago. The vaccine business is one of their core focus areas, so they wanted to strengthen their business capabilities by incorporating Medicago's technology, which is plant-based VLP.

[Translation]

Mrs. Julie Vignola: Was the Mitsubishi Chemical Group concerned about Philip Morris International being a shareholder?

[English]

Mr. Toshifumi Tada: Philip Morris was a shareholder of Medicago even before Mitsubishi Tanabe Pharma acquired 60%. Based on the discussion between Philip Morris's investment and Mitsubishi Tanabe Pharma, they agreed to form a joint venture at a 60-40 shareholding ratio.

• (1230)

[Translation]

Mrs. Julie Vignola: In other words, the Mitsubishi Chemical Group did not have any concerns about that.

Is that correct?

[English]

Mr. Toshifumi Tada: I don't know whether they had a concern 10 years ago or not.

[Translation]

Mrs. Julie Vignola: Medicago tried to distance itself from Philip Morris International in 2020. How did it go about doing that?

Why did Medicago wait until 2022 to do so?

[English]

Mr. Toshifumi Tada: First, a shareholding structure was a topic discussed between two shareholders. Medicago itself was not involved in the shareholders' discussion, so I'm not in a position to make a comment on that aspect.

[Translation]

Mrs. Julie Vignola: In your opening remarks, I believe you said that the vaccine had a 75% effectiveness rate against symptomatic COVID-19 and 100% effectiveness against long COVID-19, which has serious undesirable effects.

As I understand it, the World Health Organization, or WHO, rejected the vaccine purely because of its shareholder and not because of its quality.

Is that correct?

[English]

Mr. Toshifumi Tada: That's our understanding. It has nothing to do with the vaccine's efficacy or quality.

[Translation]

Mrs. Julie Vignola: With regard to plant-based technology, some newspapers have reported that Medicago used a plant similar to tobacco to manufacture its vaccines.

I know I you are not scientists, but I expect you have some basic understanding of this.

What is the difference between the plant that Medicago uses, *Nicotiana benthamiana*, and the one cigarette manufacturers use, *Nicotiana tabacum*?

[English]

Mr. Toshifumi Tada: First, I want to qualify that we used a plant called *nicotiana benthamiana*. This is a relative to the tobacco leaf, but it's quite different from the tobacco you smoke. Our vaccine contains no tobacco or nicotine products.

[Translation]

Mrs. Julie Vignola: Thank you very much, Mr. Tada and Ms. Marquis.

I think my time is up.

[English]

The Chair: Thank you.

Mr. Johns, please go ahead for six minutes.

Mr. Gord Johns: I would like to get some answers out of this as well.

On a similar track, on December 29, 2022, CBC News reported that the tobacco giant Philip Morris International had divested all its shares from Medicago. In a statement, Philip Morris's spokesperson, David Fraser, said the company decided that this was "the most appropriate way forward".

Before the decision, Philip Morris owned 21% of your company's shares. Can you confirm how Philip Morris International was compensated for its Medicago shares?

Mr. Toshifumi Tada: Thank you for the question.

I understand the result was that the share transfer from Philip Morris Investments to Mitsubishi Tanabe Pharma was the result of intensive discussions between the two shareholders. Medicago was not involved in those discussions, so we don't have any knowledge to answer your question.

Mr. Gord Johns: You have no idea how Philip Morris International was compensated?

Mr. Toshifumi Tada: No, I don't know. It was between the shareholders.

Mr. Gord Johns: Okay.

Mitsubishi Chemical Group's consolidated financial results for the fiscal year ending March 31, 2022, note the following:

...MCG has determined that it will not pursue the commercialization of the VLP vaccine. In addition, MCG judged that it was not viable to continue to make further investment in the commercialization of Medicago's development products, and decided to cease all of its operations at Medicago and proceed with an orderly wind up of its business and operations. Consequently, since the investment [has become] unrecoverable, the carrying amount of Medicago's vaccine manufacturing equipment and goodwill related to its business and operations was reduced to the recoverable amount....

Can you outline why MCG came to the determination that it was not viable to continue to make further investments in the commercialization of Medicago's development products?

Mr. Toshifumi Tada: Thank you for the question.

There are two answers. First, after approval, we faced internal challenges in scale-up for the commercialization and we knew that it would take time to fix it. That's the first.

Second, while we were fixing the issue, we started to observe that the COVID-19 vaccine market was evolving quite a lot and that market demands were shifting to the bivalent vaccine, including the omicron strain. Our vaccine did not contain the omicron strain, so we thought additional R and D investment would be needed to catch up. At the same time, we negotiated with PSPC that because of the market change, PSPC would cancel their order because of their inventory position and the variety of strains in circulation.

Given that situation, we understand that Mitsubishi Chemical reviewed the situation comprehensively and decided further investment would not make a business case for them.

• (1235)

Mr. Gord Johns: Can you confirm the recoverable amount for Medicago's vaccine manufacturing equipment and goodwill related to its business?

Mr. Toshifumi Tada: I'm not in a position to comment financially on what the recoverable amount was, but we can understand that our shareholders have invested in Medicago almost \$2 million so far.

Mr. Gord Johns: Okay.

Philip Morris International's 2022 annual report noted the following:

In 2021, our equity method investee, Medicago Inc., initiated additional rounds of equity funding in which we did not participate. As a result, our share of holdings in Medicago Inc. was reduced from approximately 32% at December 31, 2020, to approximately 23% as of December 31, 2021. The ownership dilution resulted in a \$0.04 per share favourable impact to diluted EPS and income of \$55 million to equity investments and securities (income)/loss, net in the consolidated statements of earnings for the year ended December 31, 2022.

At this committee's meeting last Wednesday, health minister Mark Holland claimed that PMI'S minority position that was held in Medicago did not advance the interests of either nicotine or tobacco. Given that this ownership dilution had a positive financial impact for Philip Morris International, contributing to a net income of \$55 million for the year 2021, is it accurate to claim that Philip Morris International's minority position in Medicago did not advance the tobacco company's interest?

Mr. Toshifumi Tada: First, I can't comment on whether or how interesting Medicago is to the Philip Morris investment decisions, but I can confirm that they are a minority investor, and we didn't have any tobacco research or whatever with the Philip Morris investment. We use nicotiana benthamiana. It is a plant that is related to the tobacco leaf, but it's not tobacco leaves. Our relationship with PMI is nothing more than as a minority shareholder.

Mr. Gord Johns: Okay. The profit could certainly flow back to the company, so they could advance their interests.

The government invested \$173 million in Medicago in 2020 to help your company develop and produce its plant-based COVID-19 vaccine, Covifenz. Can you confirm if the government of Canada received any equity in exchange for its investment in Medicago?

Mr. Toshifumi Tada: That \$173 million is a contribution under a SIF agreement, so we can't—

Mr. Gord Johns: You can't tell us whether there's a [Inaudible—Editor].

Mr. Toshifumi Tada: We don't discuss details about the contract. However, I understand the \$173 million contracted in 2020 was a contribution by ISED to help Medicago's development of the COVID-19 vaccine and the establishment of the large-scale manufacturing facility.

Mr. Gord Johns: I think it's very hard for this committee to get a lens without that answer.

The Chair: Thank you, Mr. Johns.

Thank you, Mr. Tada.

[*Translation*]

Mr. Deltell, you have the floor for five minutes.

Mr. Gérard Deltell (Louis-Saint-Laurent, CPC): Thank you very much, Mr. Chair.

Ms. Marquis, Mr. Tada, welcome to the House of Commons.

As an MP from the Quebec City area, I have always been very proud of Medicago. What has happened in recent months and years is very unfortunate, especially the fact that the WHO did not recognize the vaccine you worked on. More disappointing, and even upsetting, is the fact that the writing was on the wall. It was written in black and white in international treaties that the WHO would never recognize the work done by Medicago.

Let us recall article 5.3 of the WHO Framework Convention, adopted on February 27, 2005, which states that “Parties shall act to protect these policies from commercial and other vested interests of the tobacco industry”. Canada is one of the 181 signatories to the convention.

Then, in 2008, Philip Morris International became a minority shareholder in Medicago.

In 2008, did anyone in government or in the company sound the alarm and point out that the WHO would never recognize Medicago's work again? Please answer yes or no.

• (1240)

[*English*]

Mr. Toshifumi Tada: Thank you for the question.

No.

We had been in conversation with the WHO because we wanted to prepare ourselves to make an application in the pandemic situation. After we made an application, they restricted it because of the tobacco connection reason. The situation was this: When they reviewed the application, they already had other vaccine candidates. Therefore, as we understand it, they made their own decision based on the situation they faced at that point in time.

[*Translation*]

Mr. Gérard Deltell: Mr. Tada, it was written in black and white that the WHO would not recognize the work of a company that included a tobacco company among its shareholders. That had been the case for Medicago since 2008. On March 12, 2020, when you announced your work on the vaccine, and in October 2022, when the Government of Canada gave you \$173 million of taxpayer money, did anyone in the company warn the government that, because of the minority shareholder from the tobacco industry, the WHO would never recognize your work? Yes or no?

[*English*]

Mr. Toshifumi Tada: We did not specify why the WHO may or may not approve our vaccine to the Canadian government.

First, the fact that PMI was a minority shareholder was already public information. Second, the WHO used a kind of exceptional treatment in the pandemic situation. We discussed with the WHO to prepare for our application, but when they reviewed it, the situation changed.

Mr. Gérard Deltell: What did they say at the time you had that kind of discussion with the government?

Mr. Toshifumi Tada: Do you mean the Canadian government?

Mr. Gérard Deltell: No, I mean the WHO. I'm sorry.

Mr. Toshifumi Tada: We just described our clinical data with the vaccine and got their suggestions so that we could prepare the applications.

[*Translation*]

Mr. Gérard Deltell: Did anyone from the Government of Canada mention to you at that point that the company included a tobacco products manufacturer and that the WHO would never recognize its work?

Did the government warn you about this, yes or no?

[*English*]

Mr. Toshifumi Tada: To my personal knowledge, I don't have the answer to the question.

[*Translation*]

Mr. Gérard Deltell: Pardon me, but are you saying that you do not want to answer or that you cannot answer?

[*English*]

Mr. Toshifumi Tada: I don't know the answer to the question of whether there was anybody from the Canadian government or whether we were notified about that.

[*Translation*]

Mr. Gérard Deltell: Ms. Marquis, can you provide any clarification on this?

Did anyone in your company warn the federal government about this?

Ms. Sarah Marquis (Vice-President, Legal Affairs and Corporate Secretary, Medicago Inc.): There was no discussion about that. I want to clarify something. The World Health Organization does not control Canada's export products. The WHO approved the vaccine among the surplus vaccines donated by certain countries.

Mr. Gérard Deltell: Yet, the WHO did not recognize the company. When the WHO said in March 2022 that it would not recognize the vaccine, were you surprised or rather did you realize that you had failed to raise the issue that had been spelled out in black and white since 2005?

Ms. Sarah Marquis: The WHO could have made a different decision. It made that decision based on the other options available at that time.

Mr. Gérard Deltell: So you took a chance that the WHO would accept it.

Is that correct?

Ms. Sarah Marquis: During our discussions with the WHO at that time, it did not raise the issue.

Mr. Gérard Deltell: The government invested \$173 million of taxpayer money in your company. Can you release the contracts that were signed?

Let us be clear, Mr. Tada.

[English]

We don't want to know the formula for the vaccination. We don't want to know that, but when we talk about taxpayer money, we need clarity and transparency.

[Translation]

Are you willing to release your contracts with the federal government, without disclosing any scientific secrets, so that we can find out how taxpayer money was spent at that time?

[English]

Mr. Toshifumi Tada: First, I want to clarify that we acted in good faith to satisfy all the contracts we made with the government.

Second, regarding the advance purchase agreement with PSPC, we already agreed that access to the unredacted copy of the agreement can be granted to the public accounts committee so that it can review the agreement for the country.

• (1245)

The Chair: Thank you, Mr. Tada.

[Translation]

Thank you, Mr. Deltell.

Ms. Vignola, you have the floor for two and a half minutes.

Mrs. Julie Vignola: I think it is the Liberals' turn.

[English]

The Chair: Excuse me. Dr. Powlowski is next, for five minutes.

Mr. Marcus Powlowski: A lot has been made of the fact that the WHO didn't approve the vaccine. That was partly attributed to the framework convention on tobacco control. I have some familiarity with the framework convention on tobacco control. I was actually part of one intergovernmental negotiating body meeting when the treaty was being formed.

Ms. Marquis, I'm pretty sure of the answer to this question, but is there anything specific in the treaty that would prevent the WHO from approving a vaccine that was made by a company that was involved in the tobacco industry?

Ms. Sarah Marquis: The treaty does refer to the fact that investments that can further the interest of the tobacco industry could be considered by the WHO.

Mr. Marcus Powlowski: The pivotal words would be "could be".

Ms. Sarah Marquis: It is "could be".

Mr. Marcus Powlowski: It certainly doesn't bind the WHO.

Ms. Sarah Marquis: I wouldn't say it's binding, but it's something the WHO can consider in its analysis. The treaty does contain exceptions for pandemic purposes. It contains a certain level of interpretation for the WHO.

Mr. Marcus Powlowski: It contains a certain level of interpretation.

In your opinion, had there been no other vaccines out there available for COVID, do you think the WHO would still have not approved its use?

Ms. Sarah Marquis: Yes, I think so, because the benefits would have outweighed the considerations for the tobacco industry.

Mr. Marcus Powlowski: At the time, it actually came before the WHO, and there were many other vaccines. In that context, the fact that it was produced by a tobacco company became far more relevant than if there were no other vaccines, and this wasn't already being addressed.

Ms. Sarah Marquis: Correct.

Mr. Marcus Powlowski: I did not know that a relative of tobacco was used to produce the vaccine, which I find very interesting. The fact that Philip Morris International invested in this company perhaps could be seen as a fact that there are many tobacco producers around the world—for example, in Zimbabwe—and people with pretty limited incomes. Yes, although we would like to see nobody smoking cigarettes anymore, and I'm looking around the room.... I'm not sure if anyone here smokes cigarettes. I know of some people.

However, potentially finding more useful alternatives to the use of tobacco plants could be seen as being socially desirable in many poor countries where you have tobacco producers who have very limited income. Am I right? Perhaps as the company's CEO, this isn't one of the things you consider, but I'm suggesting there might be some social utility, in fact, in using tobacco plants for purposes other other than making cigarettes.

Mr. Toshifumi Tada: You pose an interesting question.

Pharmaceutical companies are using plants, but we are not selling the plant itself. We don't have any expertise or knowledge to expand your potentially very nice idea for that. I think I will leave that to other experts to comment on.

Mr. Marcus Powlowski: The new company that's being formed out of the remains of Medicago—Aramis—is made up of former employees.

What transfer of your factory and your equipment has gone over to them, if any? Was it sold to them? What's the relationship between Medicago and the new company?

Mr. Toshifumi Tada: As you understand correctly, Aramis' leadership consists of our former employees. It is based in Quebec City.

We worked with Aramis for the transfer and the path of settlement to terminate our SIF agreement with ISED. We transferred our R and D manufacturing pilot plant in Quebec, our equipment and our intellectual property assets to Aramis at the request of ISED. That was a part of the settlement to terminate that agreement.

• (1250)

Mr. Marcus Powlowski: This was kind of a three-way agreement between the Government of Canada, Aramis and Medicago in closing down Medicago.

Mr. Toshifumi Tada: We made the transfer to Aramis at the request of ISED.

The Chair: Thank you, Dr. Powlowski.

[*Translation*]

Ms. Vignola, you now have the floor for two and a half minutes.

Mrs. Julie Vignola: Thank you very much, Mr. Chair.

Mr. Tada, you said that the technology used at the North Carolina plant was not covered by the agreements.

What will happen to that technology? Who owns it now? Who has taken that technology?

[*English*]

Mr. Toshifumi Tada: Thank you for the question.

Our plants in North Carolina are relatively bigger commercial plants. It's not the core of the research and development and the IP. All IP is controlled by our operations in Quebec. We transferred our key R and D assets from the pilot plant in Quebec, our intellectual property assets and our equipment to Aramis, but the plants in North Carolina, which we are using for commercial production, are not a part of the transaction.

[*Translation*]

Mrs. Julie Vignola: Okay.

What will happen with those plants?

[*English*]

Mr. Toshifumi Tada: They are leased plants, so we are negotiating with landlords to terminate the lease.

[*Translation*]

Mrs. Julie Vignola: Do those plants use the same technology as is used in Quebec?

[*English*]

Mr. Toshifumi Tada: It is a plant-based vaccine manufacturing facility, with the same products and the same technology.

[*Translation*]

Mrs. Julie Vignola: If I understand correctly, someone other than Aramis Biotechnologies could use that technology.

Is that correct?

[*English*]

Mr. Toshifumi Tada: They can't really, because this is plant-based VLP. Even though we showed IP, it's not easy. They need established know-how to produce it. Even if you are given equipment or a building, no one can produce the product we produce, based on the IP and technologies.

The IP, which we have protected so far, has been transferred to Aramis. They own that IP.

[*Translation*]

Mrs. Julie Vignola: Thank you.

The Chair: Thank you, Ms. Vignola.

[*English*]

Mr. Johns, go ahead for two and a half minutes.

Mr. Gord Johns: Who is financing Aramis?

Mr. Toshifumi Tada: We have no idea.

Mr. Gord Johns: You stated that you didn't tell the government about your Philip Morris partnership because it would make your product ineligible at the World Health Organization. Is that true?

Mr. Toshifumi Tada: No. I don't know. I have no idea whether we did or did not tell the Canadian government about PMI's existence, but we know it was public information that PMI owned a minority share of Medicago.

Mr. Gord Johns: It could have been a deal breaker. That's a concern.

Did you intentionally fail to warn the government about the likely effects of your company's involvement with PMI? Do you think that such an omission is okay, or should disclosures like that be mandatory?

Mr. Toshifumi Tada: I have no knowledge. I don't know whether we communicated or didn't communicate.

Mr. Gord Johns: Do you think it should be?

Mr. Toshifumi Tada: I don't know. I can't comment.

Mr. Gord Johns: I think so.

The Government of Canada tabled the Public Accounts of Canada 2023 on October 24, 2023, which disclosed the loss by the Public Health Agency of Canada of \$150 million due to an unfulfilled contract by a vendor. According to the document, none of these funds were expected to be recovered, despite inquiries from parliamentarians and the media. The government initially refused to provide any details about this loss, stating the information could not be divulged because of confidentiality agreements with the contractor.

Can you confirm whether Medicago asked the Government of Canada to withhold information about this \$150-million loss from Parliament?

● (1255)

Mr. Toshifumi Tada: No, we didn't.

We understand the government and Medicago had confidential obligations, but we discussed.... We can't disclose the details without prior consent from the other party. We discussed with PSPC to what extent we or they could disclose. We have never requested to hold back that information.

There's one more thing. The \$150-million advance payment was paid. We used it for the at-risk manufacturing and we could not deliver the dosages, but the WHO's rejection of PMI's existence has nothing to do with those situations.

The Chair: Thank you, Mr. Tada.

Next we have Dr. Ellis for five minutes.

Mr. Stephen Ellis (Cumberland—Colchester, CPC): Thank you very much, Mr. Chair.

Mr. Tada, it's good to see you again. We met at the public accounts committee.

Sir, at that time, when I questioned you on March 23, 2023, you agreed that Medicago had received \$773 million from the Government of Canada and that you owned the IP and the business assets in Canada.

Is that true, sir?

Mr. Toshifumi Tada: Yes, sir. As of 2020, we made a SIF agreement with ISED.

Mr. Stephen Ellis: It was \$773 million, sir.

Mr. Toshifumi Tada: No, \$173 million was the amount contracted then.

Mr. Stephen Ellis: I'm sorry, sir. At that time, in that committee, you said "\$773 million". That number, of course, came from the number of doses the Government of Canada agreed to buy. Is that number not correct, sir?

Mr. Toshifumi Tada: No, it's not correct. I'm not aware of it.

Mr. Stephen Ellis: Okay. I would encourage you to go back and read those transcripts. Certainly that is in the transcripts from March 23, 2023.

Oddly enough, sir, are we to believe that Mitsubishi—which is, of course, the parent company, and an incredibly successful multinational corporation....

Out of the goodness of your heart, did you give up \$40 million in IP and business assets in Canada?

Mr. Toshifumi Tada: We discussed it, along with our shareholders, with ISED intensively. We agreed, after good-faith negotiations, that we would repay the amount owing to the Canadian government, which included \$40 million cash and our transfer of key R and D assets, including intellectual property.

Mr. Stephen Ellis: I guess if I owned Mitsubishi, I would say, "Why did we do that?" They had already given you \$150 million. Why would you give up IP assets and \$40 million? Did they have something over your head?

Mr. Toshifumi Tada: The contribution from ISED was for COVID-19 vaccine development and the establishment of the manufacturing facility. We developed a COVID-19 vaccine and got it approved by Health Canada. We spent our contribution from the government for that developmental work.

In order to settle the agreement, given where we were, we agreed to the settlement, which included the repayment of \$40 million and transfer of the assets.

Mr. Stephen Ellis: I'm sorry, sir—through you, Mr. Chair—could you be a little more transparent about settling the contract? That doesn't make any sense to me.

Mr. Toshifumi Tada: I'm not able to disclose further details of the settlement.

Mr. Stephen Ellis: If the Government of Canada agreed, in an advance purchase agreement, to give you \$150 million.... You, sir, have made it clear, I think, that you held up your part of the bargain, so why would you give them back \$40 million in assets and IP? That makes no sense.

Mr. Toshifumi Tada: We have to be very clear that you are talking about a \$150-million advance payment under the APA with PSPC. The other contract is a SIF agreement with ISED.

The two agreements are different, sir.

Mr. Stephen Ellis: That's still going to leave Canadian taxpayers in the dark as to what happened.

Sir, are there any other people who could testify here who could shed more light on this?

Mr. Toshifumi Tada: I want to be clear that we had two agreements with the Canadian government. We acted in good faith to fulfill both of the agreements where possible. If we could not, we followed the termination clause of the agreement, or we discussed the situation in good faith. For this agreement, we agreed, as I said, to terminate or settle the agreement by repaying cash and transferring the assets.

• (1300)

Mr. Stephen Ellis: I guess, sir, through you, Chair, it still leaves the Canadian taxpayer confused as to how all this happened.

I'm sitting here and I've been following this meeting and this story for the entire time, and I'm confused. I think all of our jobs, as we sit around this table, are to come to a better idea of what happened to the Canadian taxpayers' money. I don't feel like that's forthcoming, and that's a shame.

With that being said, sir, I hate to do this to the committee, but I do have to table a motion. That motion, Chair, will say:

Given that the Liberal government's carbon tax has had a detrimental impact on the health and livelihood of Canadians, driving two million of them to use food banks in March of 2023 alone, the chair report to the House that the committee call on the government to immediately cancel the carbon tax.

Thank you, Chair.

The Chair: Thank you, Mr. Tada.

We'll take the motion as a notice of motion, because it doesn't touch on the matter that we are now considering. Thank you for that.

We're now at the top of the hour, so a motion to adjourn would be in order. Is that the will of the committee?

Ms. Sidhu, do you have something that you want to raise? Am I right that you want to speak on the motion in case it is in order?

Ms. Sonia Sidhu: Yes, Mr. Chair.

I'm virtual today. Would it be possible to briefly suspend to get the motion in writing?

The Chair: I don't think a suspension would be necessary. The motion has been taken as notice. It isn't in order to be debated today.

Mr. Tada and Ms. Marquis, I want to say thank you so much for being with us. We greatly appreciate your accepting our invitation and coming to take our questions. Thank you, and we wish you all the best for the holidays.

There will be no meeting on Wednesday. This is it until Christmas. I know that you find that hard.

The deadline to submit a complete witness list for the opioid study is this Friday at 4 p.m. There have been partial lists submitted, but please complete your lists by this Friday.

Is it the will of the committee to adjourn the meeting?

Some hon. members: Agreed.

The Chair: We're adjourned.

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