Action No. 2001-14300
E-File Name: CVQ22INGRAMR
Appeal No._____

IN THE COURT OF QUEEN'S BENCH OF ALBERTA
JUDICIAL CENTRE OF CALGARY

BETWEEN:

REBECCA MARIE INGRAM, HEIGHTS BAPTIST CHURCH,
NORTHSIDE BAPTIST CHURCH, ERIN BLACKLAWS and TORRY TANNER

Applicants

and

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF ALBERTA
and THE CHIEF MEDICAL OFFICER OF HEALTH

Respondents

H E A R I N G
(Excerpt)

Calgary, Alberta
February 22, 2022

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Proceedings taken in the Court of Queen's Bench of Alberta, Courthouse, Calgary, Alberta

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February 22, 2022	Afternoon Session
The Honourable Justice Romaine (remote appearance)	Court of Queen's Bench of Alberta
J.R.W. Rath (remote appearance)	For R. Ingram
L.B.U. Grey, QC (remote appearance)	Heights Baptist Church, Northside Baptist Church, E. Blacklaws and T. Tanner
N. Parker (remote appearance)	For Her Majesty the Queen in Right of the Province of Alberta and The Chief Medical Officer of Health
B.M. LeClair (remote appearance)	For Her Majesty the Queen in Right of the Province of Alberta and The Chief Medical Officer of Health
N. Trofimuk (remote appearance)	For Her Majesty the Queen in Right of the Province of Alberta and The Chief Medical Officer of Health
M. Palmer	Court Clerk

THE COURT: Good afternoon everyone. Are we ready to proceed, Mr. Parker, with Dr. Zelyas?

MR. PARKER: We had discussed -- Dr. Zelyas is available at 2, so if it is okay with you, we were going to have the respondent's opening statement.

THE COURT: Right, of course.

MR. PARKER: And we have Dr. Zelyas, I believe, who will check-in at 2:00 and should be ready to go then.

THE COURT: Okay. Mr. Parker, when you are ready.

Opening by Mr. Parker

MR. PARKER: Thank you, Justice Romaine. This is the opening statement of the respondents, Her Majesty the Queen in Right of Alberta and the Chief

Medical Officer of Health.

The background to this litigation, Justice Romaine, and I appreciate we've reviewed some of this already, so some brief highlights. The originating application was filed in this matter in December 2020 and on December 19th of that year, the interim injunction application was heard before Justice Kirker. Her decision in 2020 ABQB 806 denied that injunction.

Justice Kirker then asked us for a plan to get this matter to trial and it's fair to settlement agreement that the parties had very different views on how we should get there and the timing to get there. Dr. Bhattacharya had a primary report consisting of 2300 pages, 42 pages of report, 165 footnotes making up the rest of the 2300 pages, including numerous media and newspaper articles was served on Alberta on January 21st, 2020. What followed was a lengthy argument on timing and process. If you look back on Justice Kirker's comments on April 21st and she noted that we had met three times to hammer out that procedural order.

The respondents had taken a position in that procedural order and Justice Kirker made it part of the procedural order that there was an application to strike claims from the originating application where there was no reasonable prospect of success and also opposing amendments to that originating application. The respondents were largely successful on that application and that was reported in Justice Kirker's decision 2021 ABQB 343.

At that time the respondents took the position that there were still insufficient particulars as required under the *Judicature Act* and as I've alluded to earlier, that was finally remedied on June 9th, when the supplemental particulars were provided by my friends.

We also had scheduled as part of the procedural order, a one-day full hearing on June 1st to strike out numerous affidavits of the applicants. That hearing did not proceed on June 1st, I believe all the materials were filed in support, but on the eve of the full day in court consent orders were entered into by my friends, ultimately, I believe 13 affidavits were struck out that had been filed by the applicants in this matter.

I'm going to move to the applicants now. There are three individual applicants and two churches and as we've said previously and your decision has made clear, this matter covers impugned orders during the second and third waves of the COVID pandemic in Alberta. The third wave we have stated as ending June 30th, 2021, and that allowed us to file evidence on July 12th, 2021 in support of the respondents' positions in this matter. That also seemed like an appropriate time to cut-off the evidence as that was the time that Alberta's Open for Summer plan was put into place as set out in Dr. Hinshaw's affidavit.

I'll note that this is the -- in Manitoba, along the same timeline a Bhattachrya Report was served in January. A two-week trial was held in May on the CMOH orders during the second wave in that Province.

You have our pre-trial factum that was filed in September, however, due to our friends' demand for an adjournment after the respondents had advised that neither Ms. Gordon nor Dr. Hinshaw would be available as scheduled during the trial, which was during the peak of the fourth wave, we have since benefited as a result of that adjournment by the issuance of Chief Justice Joyal's reasons in the *Gateway* matter and those reasons are *Gateway v. Manitoba* 2021 MBQB 219.

And I'll just refer to Chief Justice Joyal's reasons a couple of times as I go through the respondents opening statement. As you will know, the evidence of Dr. Bhattacharya in Manitoba was very similar as to that filed in Alberta, both his primary and surrebuttal reports. For example, the primary report in Alberta has 165 footnotes, the one in Manitoba has 161 footnotes and the vast, vast majority of those footnotes are identical.

I'd just turn first to paragraph 20 of the *Gateway* decision and this is really important, why we addressed through the procedural order and applications clear deficiencies in the pleadings, the originating application and in the evidence and why we demanded and received the supplemental particulars which we had suggested to Justice Kirker be attached to the oral hearing orders was done and we hope that those supplemental particulars do assist the Court in determining just what orders and what issues are before you. This is not, as I said several times, a public inquiry and as I'm going to say, what it is, is best explained by reference to paragraph 20 of Chief Justice Joyal's reasons in *Gateway* where he says the following:

> [He needed to be] mindful that this case is not a public inquiry into the national and provincial responses to the pandemic. This is instead, a legal challenge to specific portions of the identified Public Health Orders. In that connection, this Court should not have to be reminded that like any court case, this case is defined by the pleadings. Put simply, as this is not a public inquiry, this case is not and should not be a probe or questioning of every aspect of Manitoba's handling of the pandemic nor a challenge to every public health order or restriction. To repeat, while such a broader public assessment may very well come in due course, this Court's focus must be on the constitutionality of the identified portions of the orders in question. Unless relevant to the specific constitutional determinations I must make, this Court must take care to not conflate that constitutional assessment with an undue judicial focus on the wisdom of Manitoba's

> broader policy choices as it relates to what may have been the inadequacies or adequacies of the particular timing, scope and nature of the public health restrictions. Although the evaluative line and relevant parameters can be sometimes difficult to discern in the context of an adjudication of a *Charter* challenge, as Justice Binnie colourfully commented, a court case "should not resemble a voyage on the Flying Dutchman with a crew condemned to roam the seas interminably with no set destination and no end in sight".

I am going to now turn to the evidence. First, I'll start with the applicants' first witness and main witness, Dr. Bhattacharya. The respondents' submission is that Dr. Bhattacharya is a very interesting and clearly an accomplished individual. The submission is that he is also very passionate about focussed protection. He's also a Professor at a very prestigious university and to his credit, has given evidence that he has accepted no money for any of his COVID-19 related activities.

However, on the other side of the credibility ledger are the following; the respondents submit that there is a clear tendency on Dr. Bhattacharya's part to know better than the actual subject matter experts. For example, I went through the decision of Judge Crenshaw in Tennessee and noted that Judge Crenshaw had taken issue with Dr. Bhattacharya taking a completely different position from Dr. Abaluck who was the author of the Bangladesh study in that case.

Another example in the respondents' submission of Dr. Bhattacharya tendency to know better than the actual subject matter experts, is the PCR evidence of Dr. Zelyas during cross-examination. I took him to a document in the report of Dr. Zelyas, it's at page 143 of 144 of Dr. Zelyas' Report and that document states it would be a regulatory violation for labs to report CT values for nucleic acid amplification tests. Dr. Bhattacharya's response when this evidence was put to him was that the policies should be changed.

The tendency to know better than the actual subject matter experts also comes out through Dr. Bhattacharya's evidence about the first Madewell study, in which the authors pointed to the Q Study where the Q Study had split out asymptomatic from pre-symptomatic. This issue is covered, that is noted from the authors of the First Naval Study at page 12 of 1236 of Dr. Kindrachuk. It's covered in the surrebuttal report of Dr. Bhattacharya at page 7, and I also draw your attention to the affidavit of Dr. Dean at paragraph 8, (e), (f) and (g) on this issue.

You'll recall that the Madewell Study determined pre-symptomatic and asymptomatic was between 0 and .07 percent whereas the Q Study had determined asymptomatic of 1 percent, pre-symptomatic at 7 percent and symptomatic at 6 percent secondary attack rates.

In the submission of the respondents Dr. Bhattacharya also, at times, came across as more as an advocate than an expert and I point to his statement during cross-examination on his evidence in the Florida masking case that "we won on appeal". And we would submit that these characteristics of Dr. Bhattacharya's evidence should result in less weight being given to his evidence as a result.

The respondents also would submit that Dr. Bhattacharya was not forthcoming in his evidence, and we point to the retraction of the Savaris Study as an example of that. I have looked at the transcript and I won't go through it, but I note that at volume 1, page 110, line 12, is where this questioning or cross-examination begins. Dr. Bhattacharya was aware he said that the Savaris Study had been retracted and he acknowledged revising his report. The language in his report, his surrebuttal report in Alberta, compared to that that he had used in Manitoba, he said that this was not a result of Manitoba putting to him a criticism of the Savaris Report during the Manitoba proceeding even though he had not seen that criticism before, it was showed to him by Manitoba. But in any event, he did change the language on this report from Manitoba where he described the Savaris Study as perhaps the best peer reviewed study on the subject, whereas in Alberta, he referred to it as just another study.

You will certainly have an opportunity to review the transcripts and determine whether the evidence of Dr. Bhattacharya relating to the Savaris Study and him being forthcoming or not with the retraction should impact the weight given to Dr. Bhattacharya's evidence. We suggest it should.

We'd also suggest that Dr. Bhattacharya was not particularly well prepared as a witness. He was not aware of the Madewell second study until it was provided to him, for example. And I just want to briefly touch on what Chief Justice Joyal said in *Gateway* about Dr. Bhattacharya's evidence on symptomatic and pre-symptomatic transmission. And this is at paragraph 168, he says:

> On the subject of the spread of COVID-19 by individuals who do not display symptoms, Dr. Bhattacharya admitted that an important part of his opinion rests on the proposition that asymptomatic transmission of the virus is very rare. Indeed, it would appear that Dr. Bhattacharya did not distinguish between asymptomatic transmission and pre-symptomatic transmission, instead characterizing both concepts as “asymptomatic transmission”. It was Dr. Bhattacharya’s position in his second report that the “clear implication of this scientific fact is that many intrusive lockdown policies … could be replaced with less intrusive symptom checking requirements, with little or no detriment

to infection control outcomes".

I pause to note that the identical statement was made in Dr. Bhattacharya's rebuttal report in Alberta.

Chief Justice Joyal continues at that paragraph:

> Despite being confronted in the course of his cross-examination with commentary from the literature that one would have expected would precipitate more nuance in Dr. Bhattacharya's position, Dr. Bhattacharya continued to insist that asymptomatic transmission, including pre-symptomatic transmission, had an upper limit of 0.7 per cent secondary attack rate.

Ultimately, Chief Justice Joyal at paragraph 184 had this to say about Dr. Bhattacharya's evidence and we urge you to come to the same conclusion here. Chief Justice Joyal says:

> So although Dr. Bhattacharya's opinions have obviously been carefully considered by the Court as part of the applicants' evidentiary foundation generally and as part of the applicants' challenge to the science relied upon by Manitoba more specifically, there was in the end, little in the evidence of Dr. Bhattacharya (or the cumulative evidence of all of the applicants' witnesses) that would cause me to seriously doubt the science upon which Manitoba is relying. Similarly, there is little in Dr. Bhattacharya's evidence that would cause me to doubt as to whether Manitoba has established what it must establish in order to discharge its onus on its section 1 defence (of the impugned orders) on a balance of probabilities.

The other two witnesses, expert witnesses of the applicants, are Dr. Kerbel (phonetic) and Mr. Redman. Dr. Kerbel is a pathologist and we determined that there was no reason to cross-examine him on his report and so we have not done so. As to Mr. Redman, the evidence provided by Mr. Redman, the applicants retired emergency management expert in the respondents' submission, was needlessly black and white. In his view, there was only one correct way to respond to this novel pandemic and his evidence, much like most of the applicants' evidence was devoid of any nuances or shared shades of grey. Mr. Redman's position appears to be because his suggestions were not implemented, he argued that the Government of Alberta's flexible response to this continuing evolving pandemic was substandard. That's the applicants' experts.

Now moving onto beyond the evidence of the applicants to what the respondents say this

matter will ultimately be decided on and that is, that it will be ultimately decided as the legal issue, not by this Court resolving scientific debates on the effectiveness or not of NPIs. The details of the legal issues are in the respondents' pre-trial factum and here's a summary. A number of claims are asserted by the applicants, but simply put, many of these are not borne out on the evidence.

There is no evidence capable of supporting many of the *Charter* breaches asserted. For example, section 2(a) and freedom of religion, the only claimants who have provided facts capable of founding a breach of religion are the two applicant churches and this relates to the masking orders and the capacity limits on places of worship. Section 2(b) freedom of expression, in the respondents' submission, no claimant has provided evidence capable of grounding a 2(b) breach. With respect to section 2(c), freedom of assembly and 2(d), freedom of association, Torry Tanner is impacted by the private residence restrictions. The churches are impacted by the indoor gathering restrictions. Erin Blacklaws rights are impacted by the isolation quarantine and visiting restrictions and Ms. Ingram's rights are impacted by the indoor gathering restrictions and the outdoor gathering restrictions.

With respect to the section 7 *Charter* claims, there are no claims supported in respondents' submissions in the evidence that's been filed. With respect to the section 15 claim of discrimination, there is no claim that warrants a section 1 defence applicable to it. Ms. Ingram has no standing to assert violations on behalf of her children.

Therefore, the only claimed infringements with supporting evidence are under 2(a) religion, 2(c) assembly and 2(d) association and therefore as I recalled Justice Kirker telling us back on December 19th at the end of the injunction application, this matter will ultimately be resolved by a section 1 analysis. That is whether Alberta had a pressing and substantial objective for the impugned restrictions, whether those -- whether the means used to achieve the pressing and substantial objective were rationally connected, whether there's the necessary proportionality between the deleterious and salutary effects of the orders and whether the orders and the approach taken were minimally intrusive.

On this section 1 analysis and how it applies in this case, I again want to return to Chief Justice Joyal's reasons in *Gateway* at paragraph 335 this time where Chief Justice Joyal said the following:

> When examining the benefits of Manitoba's response in the face of the threat of such a deadly pandemic, it is reasonable and rational to conclude that despite the undeniable hardships caused by the limitations on fundamental freedoms, the salutary benefits far outweigh the deleterious effects. In making that statement, I am mindful that the Supreme Court of Canada has held that a section 1

> justification does not require scientific proof in an empirical sense. In this context, it is extremely difficult and perhaps impossible to empirically prove in advance that the potential economic and social costs of the impugned restrictions outweigh the benefits. Instead, as the Supreme Court of Canada has noted:
>
> > … it is enough that the justification be convincing, in the sense that it is sufficient to satisfy the reasonable person looking at all the evidence and relevant considerations, that the state is justified in infringing the right at stake to the degree it has. In this sense, the Court looks for and Manitoba has provided, a "rational, reasoned defensibility".

And the respondents submit that this is the correct approach to section 1 in a case such as this where there are many competing interests and views and we hope you come to the same conclusion after hearing Alberta's evidence.

I am going to turn now to Alberta's evidence. You will not hear from three of those witnesses, Dr. Balachandra and Patricia Wood, or two of them, Dr. Balachandra is Alberta's Chief Medical Examiner and Patricia Wood is a -- I believe it was leading mortality statistician with Statistics Canada and both their evidence was put in to respond to the evidence of Dr. Bhattacharya dealing with counting of COVID-19 deaths.

There is also an affidavit of Dr. Dean that I took you through and Dr. Dean was the supervising author of the Madewell study and also of the second Madewell study.

In terms of the evidence that you have heard or will hear -- the witnesses you have heard or will hear from, Scott Long, in the report of Mr. Redman and the respondents submit that Mr. Long testified in a credible and persuasive manner. He did not exaggerate. He admitted errors where he reasonably believed errors had been made and he even stated that in his opinion the second wave response was too slow.

You've also now heard, although not finished, from Dr. Kindrachuk, a virologist who has expertise in the field of emerging viruses. He's the Canada researcher in that subject, in the Department of Medical Microbiology and Infectious Diseases at the University of Manitoba and that's why Alberta thought it would be useful for this Court to have Dr. Kindrachuk's evidence. He was not involved in Alberta's response to the pandemic like others of the witnesses were, but rather as an expert in emerging viruses. Alberta's respondents' submission is that his evidence provides a good place to start in order to give an overview of the science with respect to the relevant period of time, that is during the second and third waves.

Dr. Kindrachuk, in particular, says that the data overwhelmingly suggests that both the symptomatic and pre-symptomatic transmission contribute to the spread of SARS-CoV-2, especially pre-symptomatic which he says means an inherent need to use NPIs. Dr. Kindrachuk also speaks to morbidity and mortality and says data shows that the disease has health impacts on individuals across multiple age groups and add significant stress on the health care systems and capacity nationally. He also speaks to the growing understanding at the time his report was filed on July 12th of the growing understanding of the role of aerosols in addition to respiratory droplets in the transmission of the SARS-CoV-2 virus.

Dr. Kindrachuk's evidence is there's strong evidence that face masks reduce SARS-CoV-2 transmission, however, he notes that this is not a single fail-safe method and so requires a multi-faceted approach. His evidence also deals with variants of concern and herd immunity. Dr. Kindrachuk states that increased transmissibility and immune evasion characteristics support the need to curb transmission in the global community quickly before further variants emerge. He notes that variants of concern may be able to circulate in the population that have exceeded the proposed herd immunity threshold with potentially devastating effects, and he calls for a combination of NPIs and expanded vaccination campaigns to fight the threat of the disease. He also looks to high-risk activities in his report and talks about the evidence on singing as being a high-risk activity.

Next, we will hear from Dr. Zelyas on explaining why PCR testing is important and what Dr. Bhattacharya misunderstands about the use of PCR testing and Ct values. Dr. Zelyas is the Program Leader for respiratory viruses and transplant virology with Alberta Precision Laboratories and that is unlike Dr. Bhattacharya, a health economist, Dr. Zelyas actually has the necessary expertise to credibly speak to the use of PCR tests in this pandemic.

I'll just briefly talk about Dr. Hinshaw who will be appearing when we come back in April for three days. Chief Justice Joyal in *Gateway* describes the role of a Provincial Chief Medical Officer of Health during the pandemic as a "formidable and onerous task" and I would submit that that is a very fair description. A fair and accurate description of the role and the task that Dr. Hinshaw has had to perform over the last approximately two years.

Dr. Hinshaw will speak to the role of her office in the second and third waves, as set out in her affidavit. She provides the justification for the mandatory measures used during the second and third wave to flatten the curve and avoid overwhelming Alberta's health care system. In particular, I would direct you to part E of Dr. Hinshaw's affidavit, paragraphs 162 to 224, deal with the public health measures that Alberta has put in place from the first to the third wave. And at paragraph 176, she addresses when mandatory measures were put in during the second wave and at paragraph 187, she deals with the public health emergency

that was put in place on November 24th.

Dr. Hinshaw's affidavit also responds to several of Dr. Bhattacharya's incorrect assertions including on why the Great Barrington Declaration and focussed protection was not a realistic option for Alberta and on this point, you can see paragraphs 225 to 237 of Dr. Hinshaw's affidavit and Exhibit X.

We will also hear from Dr. Kim Simmonds; she was Alberta's lead for analytics and modelling during a significant part of the pandemic. Dr. Simmonds is an applied epidemiologist. She has a PhD in epidemiology with a thesis combining mathematical modelling and classic epidemiology. She has relevant experience working in Alberta managing outbreaks and leading infectious disease surveillance in the Province over the past 15 years and as a result of her expertise in infectious disease epidemiology, mathematical modelling of infectious diseases and policy, she was asked to support Alberta's emergency operations centre during this pandemic. Her evidence describes Alberta's approach to case identified and management. She explains outbreak definitions in management. She identifies the number of outbreaks during the first, second and third waves and this can be found at paragraph 10 in Exhibit B of her report where she identifies outbreaks, particularly in places of worship and fitness locations.

Dr. Simmonds also discussed the importance of reporting surveillance information in a timely manner to ensure the required data and evidence is available to decisionmakers. And she talks, among other things, about Alberta's forecasting during the first and third waves, some of the challenges and the importance of this information to Alberta's handling of this public health crisis.

Alberta's last -- or the respondents last witness, will be Ms. Deborah Gordon. Ms. Gordon is Vice President and Chief Operating Officer, Clinical Operations with Alberta Health Services. Her affidavit covers a number of important issues, in particular, how Alberta Health Services has responded to the pressures on the health care system during waves one to three.

I'm just going to comment on some highlights real quickly from Ms. Gordon's evidence and then I'll wrap up the opening statement, Justice Romaine. At paragraph 38 of her evidence, she deals with the first projections made during the first wave and its noteworthy there that you'll see Alberta was using, at that time in the first wave, much higher estimates for hospital intake and ICU patients from the pandemic than was actually the case.

At paragraph 47, she talks about the time in early 2020 when the Province started to experience increasing positive daily tests and that this triggered the AHS clinical operations team to begin planning to assess, evaluate, increase the number of surge beds available for

the second wave. She talks about in that same paragraph 47 and Exhibit L, the AHS slowdown of scheduled services provincial plan and framework that she and her Dyad partner developed. At paragraph 50, she speaks as at the date of this affidavit, again it was filed July 12th of last year, noting that almost 40,000 surgeries were postponed or rescheduled in Alberta leading to an increase in both the number of patients waiting for surgery and the length of wait per patient. She notes that AHS has been successful in rebooking and completing almost all surgeries impacted by wave one, however wave two and three surgeries are still being rescheduled.

She notes at paragraph 52 that the wave two acute care capacity strategy and plan was developed to ensure there was sufficient capacity to meet the critical care demands as projected by the Alberta Health Services early warning system high scenario as well as projection developed by Alberta Health and that's during the second wave. And at paragraph 55 she talks about the strategies that were established and put in place during wave two to create inpatient bed capacity. She notes at paragraph 56, that these demands of planning for COVID in wave two were unparalleled.

She talks about in the same paragraph how opening 386 beds is equivalent to opening an entire new medium-size hospital. And at paragraph 59, she also indicates that the demands of COVID-19 on ICUs during wave two were also unprecedented and at that paragraph gives a comparison to flu figures in ICU, to show just how unprecedented the COVID pandemic was. She says at paragraph 60, that they previously learned in wave one that the biggest challenge to meeting any capacity plans for inpatient care in ICUs was adequate staffing.

And relative to the second wave she says at paragraph 61, that at that time, based on the Alberta Health Services early warning system high scenario and Alberta Health modelling, they had anticipated that they had sufficient ICU RN staffing to meet capacity requirements until early January 2021 if case numbers continued to rise.

At paragraph 65, she talks about the beginning of wave three and at that time she speaks to the many members of her clinical operation team that worked to assess and integrate into Alberta Health Services capacity plan the impact that the variants of concern would have on acute care capacity, something that was a feature of wave three, the variants of concern, particularly the Alpha variant and Ms. Gordon speak to how that impacts on her job on planning and dealing with capacity issues related to the pandemic.

At paragraph 66, again with respect to the third wave, she says: (as read)

> We further knew that having beyond 291 ICU beds open and staffed would be extremely difficult. Consequently, we were required to

> manage ICU capacity more finitely and fine tune our ICU staffing plan for wave three.

And with respect to wave three at paragraph 69 she notes: (as read)

> The additional surge capacity for wave three, 320 net new spaces were available. That is the approximately equivalent to opening a new hospital, such as the South Health Campus in Calgary or the Red Deer Regional Hospital Centre.

So, we hope her evidence gives you some idea, not just of the capacity issues that Alberta was under during this pandemic and not just the planning that was undertaken to try to address those capacity issues, but just how massive that planning was in terms of the number of beds being opened. She also then discusses in paragraph 70 to 73 how the third wave impacted on surgeries and as a result of overall hospital and ICU occupancy at the time.

That is a summary of Ms. Gordon's evidence and that's a summary of the witnesses of the respondents that you will hear the evidence to justify any *Charter* breaches that are found in this case.

I'm going to conclude again by going back to Chief Justice Joyal's reason in *Gateway*, he says at paragraph 197 to 202 and this section is headed Court's Assessment of All Evidence Following Cross-examinations. Chief Justice Joyal says the following:

> … on an "all things considered" assessment of the evidence, I have no difficulty concluding that even where Manitoba's response to the various waves of the pandemic could be properly criticized in hindsight as too slow and not sufficiently broad, the restrictions that were eventually imposed represent public health policy choices rooted in a comparatively well-accepted public health consensus.
>
> … in the face of Manitoba's otherwise reliable and credible expert witnesses (an assessment which the cross-examinations did not change), absent a more persuasive and conclusive evidentiary challenge to Manitoba's witnesses and their evidence, the evidence of the applicants and their challenge on cross-examination represent at best, a contrary if not contrarian scientific point of view. … it did not demonstrate or satisfy me that Manitoba has failed to discharge its onus in the context of the section 1 justificatory framework. Manitoba's position and its supporting expert evidence represent an

> appropriately "all things considered" reasonable basis for the decisions that it took respecting the restrictions that were ultimately imposed — decisions which I find on the evidence, were made on the basis of credible science.
>
> … in the absence of convincing evidence of any obvious or definitively faulty science being applied by Manitoba (and in this case, I have seen none), Manitoba's own evidence convinces me that it is on solid ground in its section 1 defence of measures and restrictions, which I repeat, represent the public health consensus and approach followed across most of Canada ...
>
> In that regard, it cannot be forgotten that in the fall of 2020, at the height of the second wave, COVID-19 cases were running rampant. Those witnesses who testified on behalf of Manitoba and who were in a position to exercise the necessary authority, made it clear that they did not believe that they "could afford to get it wrong".
>
> … I wish to be clear about my findings respecting the convincing factual foundation presented by Manitoba. In that connection, I say that notwithstanding some of the thought provoking testimony of some of the applicants' experts, I am persuaded by the evidence of Manitoba's experts and I find that the credible science that they invoked and relied upon, provides a convincing basis for concluding that the circuit-break measures, including those in the impugned PHOs, were necessary, reasonable and justified.

Justice Romaine, we hope that after you hear all of the evidence in this case, you will come to a same or the same or similar conclusions as Chief Justice Joyal did in the *Gateway* case as I've just referred you to.

Those are the opening submissions of the respondents. Thank you.

THE COURT: Thank you Mr. Parker.

MR. RATH: Madam Justice, if I may, I didn't want to interrupt within my friend's opening remarks, but I would like to raise an objection with regard to the form of his remarks and what I consider to be a fairly clear mis-statement by my friend as to what's contained within the supplementary particulars of this matter, which form part of the pleadings in this case.

As this Court is well aware, particulars and particularization form part of the pleadings. My friend went out of his way to attempt to limit the *Charter* issues that were before this Court. The supplementary particulars make it clear that with regard to Ms. Ingram, that her section 7 rights are clearly engaged with regard to this matter. And I would simply ask that rather than accepting what my friend stated within his opening as being a true and accurate reflection of what was contained in the supplementary particulars, that Her Ladyship, prior to listening to any further evidence from my friend or considering the matter further, perhaps this evening, take a look at the supplementary particulars so you have a clear view of what's actually in issue in these proceedings as opposed to what my friend Mr. Parker would like you to try to limit these proceedings to.

That's my objection. Thank you.

THE COURT: Okay. Thank you Mr. Rath, of course, this is an opening statement. An opening statement is an opening statement and is followed by the evidence and at the conclusion of the evidence I hear, I will be able to go back and review the opening statements to see how much of them I am in agreement with or object to. So, thank you.

MR. RATH: I appreciate that, My Lady, my concern wasn't with regard to the evidence it was the degree to which my friend mis-stated what was in the supplementary particulars. So I think you have my point. Thank you.

THE COURT: Okay. Thank you.

MR. PARKER: I'm sorry just -- I don't want to belabour this and my apologies, but this is an opening statement and that is my argument on the supplementary particulars, Mr. Rath, it's not saying that that's -- they say something other than what they say. I'm sorry, I won't interrupt.

THE COURT: No, Mr. Parker, I appreciate what you are saying -- I appreciate what you are saying and believe me I took it as an opening statement and we will see what the evidence shows. Okay.

MR. PARKER: Mr. Zelyas is ready and waiting for us.

THE COURT: Thank you.

MR. PARKER: Good afternoon Dr. Zelyas, are you able to hear me?

DR. ZELYAS: I am, yes.

NATHAN ZELYAS, Sworn, Examined by Mr. Parker (Qualifications)

Q Good afternoon, Dr. Zelyas. I just wanted to confirm that you have a copy of your expert report with you, sir?
A I do, yeah.

Q And just to make sure we've got the right material, you have an expert report that is schedule A, you have a COVID-19 that is schedule B and the sources used in your report are schedule C and I have that information totalling the first page, which is a form 25. There should be 144 pages altogether, I don't know if you're able to confirm that, sir?
A Yes, I have the same document.

Q Okay and that was a report and the other material you filed in this matter around July 12, 2021, right?
A That's correct, yeah.

Q Thank you. Dr. Zelyas, we're just going to speak to your qualifications briefly and so you were asked to provide an opinion in this report regarding an analysis of polymerase chain reaction diagnostic test of COVID-19 including their accuracy, inaccuracy, their use to determine cases of COVID-19 and whether people who test positive for a PCR test are infected contagious with COVID-19; is that correct?
A That is correct, yeah.

Q And what I'd ask you to do is briefly explain to the Court, Sir, your background, qualifications, training that give you the necessary expertise in order that you are able to provide the opinions that you have in this report; do you understand, sir?
A Yes, yes, I do. So I'm a medical doctor. After my MD training I went onto complete a residency in medical microbiology, that's a speciality within medicine that focuses on the laboratory diagnostics of infectious diseases. Following completion of that residency, I've been working at the Alberta Public Health laboratory. My areas of responsibility include transplant virology as well as respiratory viruses and since the beginning of the pandemic I've been one of the medical lab leads for COVID-19 diagnostics.

Q Thank you Dr. Zelyas.

MR. PARKER: Keeping with the way we've done things earlier, Justice Romaine, I am going to ask that Dr. Zelyas be qualified to give opinion evidence

on the matters I just identified which are from paragraph 2 of form 25 of his expert report.

THE COURT: Okay. Thank you. Any comments before I qualify Dr. Zelyas?

MR. GREY: Madam Justice, it's Leighton Grey here, I am going first in terms of cross-examining Dr. Zelyas and I don't take any issue with the opinion or the basis for the opinion that's being offered pursuant to paragraph 2 of this witness's expert report.

THE COURT: Okay. Thank you. Mr. Rath?

MR. RATH: Nor do I, My Lady. Thank you.

THE COURT: Okay. Thank you.

Ruling (Qualification)

THE COURT: Dr. Zelyas, I find you qualified as an expert to give opinion evidence as a medical microbiologist regarding an analysis of polymerase chain reaction diagnostic tests for COVID-19, including their accuracy and inaccuracy, their use to determine cases of COVID-19 and whether people who test positive from a PCR test are infected/contagious with COVID-19.

Go ahead then Mr. Grey.

MR. GREY: Thank you, Madam Justice.

The Witness Cross-examined by Mr. Grey

Q Good afternoon, Doctor, can you hear me okay?
A I can yeah, hi.

Q My name is Leighton Grey, I'm a lawyer, I'm one of the lawyers for the applicants in this case. You understand, sir, we're going to be asking you -- I'm going to be asking you some questions about an expert report that Mr. Parker has referred you to. This, I understand, was signed by you on the 9th of July, 2021?
A That's correct, yeah.

Q So you know which report that we are referring to?
A Yes.

Q Okay and sir, have you given evidence in court before?
A I have not, no.

Q Well, the fortunate thing is we're going to be asking -- I'm going to be asking you questions about things that you obviously know a lot about. But I want to start by asking you about your occupation. I see in paragraph 1 that you are employed by a company called Alberta Precision Laboratories; is that correct?
A Not exactly, I'm not employed by them, I'm a contractor for them.

Q I see and Doctor, are you also part of a team that is led by Dr. Hinshaw, which is responsible for development of health policy, public health policy surrounding the COVID-19 pandemic?
A I do provide advice on an ad hoc basis I would say, with my laboratory expertise regarding COVID-19 to Alberta Health, that is correct.

Q Thank you and Doctor, I note at paragraph 2 of your report, you reference a report that was authored by Dr. Jay Bhattacharya, right?
A I believe I do, yes. I don't think that I -- it's not a part of my references I would say, but I think that I likely refer to it at some point, yes.

MR. PARKER: It's on the report paragraph 25 Mr. Grey, I think that's the confusion.

A Oh got you, sorry.

MR. GREY: Thank you, Mr. Parker.

Q MR. GREY: I just wanted to -- where I'm going with this, Dr. Zelyas, I just want to know whether you had a chance to see the report, the opinion that Dr. Bhattacharya had prepared back in January of last year? It looks as though from paragraph 2 that your opinion was provided in response to his January report, I just want to make sure that that's correct.
A Yes, that is correct, I do read that and see that, and it is a response to that report.

Q Okay. Thanks. So, in that -- in that vein, in Dr. Bhattacharya's report, that is the one that he filed, the first one he filed with the Court back in January of '21, he explained that the test on which Canada bases its count of COVID infections that is the RT-PCR test for the presence of the SARS-CoV-2 virus will often generate a positive result even when an individual is not infectious and he says, that is, does not pose a danger of infecting other people; that's true isn't it?

A So, so the PCR the real-time reverse transcriptase PCR the RT-PCR, yes, so it is -- what it detects is the virus's genetic material, its RNA. And so, RNA can be present when there's live infectious virus there, but RNA can also be present when the virus is no longer actively infectious, as well. So, the RT-PCR is unable to distinguish between live infective virus or just the genetic material that is present there due to the virus having infected that individual at an early time point.

Q Okay. Thank you. Another difficulty that Dr. Bhattacharya references is that -- that is with the testing, is that the RT-PCR test as implemented permits too many doubling cycles of viral particles before declaring a negative test; do you agree with that assessment?

A No, so -- so it kind of depends on how you view the purpose of the PCR test, of the nucleic acid test. If the -- from my review of what we've done here and the literature and jurisdictionally, the PCR test is a very sensitive test to look for the nucleic acid, the RNA of the virus and even if you were to run it for fewer cycles that would effectively reduce the sensitivity of that test and your ability to find people who are currently infected or were infected. If you reduce that, you're just reducing the sensitivity of the test, it's not actually telling you whether or not someone is infectious or not, even if you do reduce the number of cycles that you -- the doubling cycles that you run for a PCR test.

Q Okay. So, so -- when Dr. Bhattacharya says that the -- for example, that the functional false positive rate increases with the number of cycles, which he calls a Ct value required to produce a positive result, you -- you take issue with that, or do you agree with that statement?

A Well, I guess it depends on how you look again at a false positive and how you define your positive result. I believe Dr. Bhattacharya had defined a functional false positive as a test where it's positive, it's returning a positive result, but a patient is no longer infectious. That's my understanding of how he is defining that functional false positive. And if that's the case, then it is true that the longer that you run a PCR the more cycles you go through, the most likely you are to pick up virus, residual virus that may be there, whether it's infectious or not. If it's very low amounts of infectious virus, you'll still be able to pick it up with the more cycles that you run. So, the -- if the -- so I suppose that if you run your PCR reaction for a very long period of time, you will generate false positives over time, you do lose some of that specificity. However, that doesn't necessarily address this -- you know, whether or not, the PCR can distinguish if someone is infectious or not.

Q All right. Dr. Bhattacharya says in his report, January 21 report, that many laboratories in Canada run the RT-PCR test up to 45 cycles so that false positive results are not just a theoretical possibility; would you agree with that?

A Again, I don't think that the number of cycles -- certainly up to 45 cycles, it's not so much dependent on the laboratory, as much as it is on the kit test that you're using. Some commercial manufacturers, they require that the test be run 45 cycles and you don't have a choice, that's how its run. And so, some of those kits do go to 45 cycles, some tests go to 40 cycles, and it depends and some might go lower, it kind of depends on the test that you're running and the kit and what the manufacturer requires.

The -- going up to 45 cycles is completely appropriate when you're trying to look for that virus's genetic material and to determine, whether or not, someone was infected or is currently infected. That's a very reasonable number of cycles that you would go to.

Q Okay. Do you know or can you say with particularity how many cycles are commonly used or were commonly used in PCR testing in Alberta during the relevant timeframe this case concerns?

A So I can say that some of the cycle threshold values that were used to kind of define that cut-off or how many cycles the instrument is ran for -- some tests were 45, some different kits, some -- some tests I know at our lab, we defined something as negative once it goes above 41 cycles and some go to 40 cycles, I believe, as well. There's many different kits that are used in Alberta and many different tests, so there's quite a bit of variability, but typically they do fall probably in that high 30s to the 45 range.

Q And in Dr. Bhattacharya's report, he had stated that according to a careful study published in Eurosurveillance, which he describes as a top journal in the field of epidemiology, if 27 cycles are needed for a positive test, a false positive rate is 34 percent. If 32 cycles are needed for a positive test, a false positive rate is 72 percent. If 37 cycles are needed for a positive test, a false positive rate is 92 percent. And he also said if more than 40 cycles are needed for a positive test, the functional false positive rate is nearly 100 percent. Do you dispute that, what he said there, or does that accord with your assessment of the matter?

A So there's -- I believe I know which paper you're talking about, but just an important thing to kind of distinguish is the use of false positive versus Dr. Bhattacharya's use of the word functional false positive. If you're looking at a false positive as where you're returning a positive result and someone is no longer infectious, that's obviously a different question than if you're using the PCR test to diagnose someone with a current or previous recent COVID infection. So, in terms of those being defined as false positives, I wouldn't say that those represent false positive results, I would say that some of those may represent incidents where patients were no longer infectious because the culture was negative in those cases. One thing to also recognize about the use of COVID culture is probably our best proxy for determining infectiousness for SARS-CoV-2, that being said the --

THE COURT: Okay. I am sorry, we are getting an alarm in the courtroom.

THE COURT CLERK: We did have to stop the recording.

(ADJOURNMENT)

THE COURT: Okay.

MR. RATH: Out of morbid curiosity, My Lady, did we find out why we had the alarm going?

THE COURT: It was a false alarm, Mr. Rath, but we -- madam clerk and I were just on the verge of starting down the stairs so we were saved from that.

MR. RATH: Thank you.

THE COURT: Okay. Mr. Grey, go ahead.

MR. GREY: Thank you.

THE COURT: I think you were interrupted.

(WITNESS RE-TAKES THE STAND)

Q MR. GREY: So, Dr. Zelyas, can you hear me?
A Yeah, I can hear you.

Q All right. Doctor, you're -- the evidence you're giving is on a very crucial point in this case and so I want to make sure that we get it straight. So what I'm going to do if you don't mind is backtrack it and go through and repeat the whole question and give you an opportunity because I think your answer was interrupted by the alarm; okay? All right. So, just bear with me. I'm going to go back and I put it to you something that Dr. Bhattacharya had stated in his report and it was this: (as read)

> According to careful study published in Eurosurveillance, the top journal in the field of epidemiology, 27 cycles are needed for a positive test, the false positive rate is 34 percent. If 32 cycles are needed for a positive test, the false positive rate is 72 percent. And if 37 cycles are needed for a positive test, the false positive rate is 92 percent.

And he goes on to say:

> If more than 40 cycles are needed for a positive test, the functional false positive rate is nearly 100 percent.

And what I'd asked you is whether you agreed with that, how he had summarized that in terms of the risk of functional false positive rates.

A Right. Yeah. I do recall. Thank you for repeating. So, the -- I think an important piece of this is defining what a false positive is in this kind of a discussion. As I mentioned before, calling it a false positive in this kind of context, this is a study where they perform culture on clinical samples alongside the RT-PCR test and compare cycle threshold or Ct values to -- and looked at that compared to how many cultures were actually positive for SARS-CoV-2. And I think an important piece here is just making sure that false positive is defined in a very clear way. So, certainly a proportion of those individuals who have those higher Ct values and a negative culture, they are not necessarily transmitting to patients anymore -- to other individuals anymore. So, the PCR will pick up dead virus. No longer infectious, no longer viable virus, that is true. But it will be detecting either current -- it will detect live virus if it is present with pretty high sensitivity and certainly it will detect as well whether someone was previously infected recently. And so -- so making sure that there's kind of that clear distinction between false positive and functional false positive, that term that is in Dr. Bhattacharya's report, is very important because I notice in this particular passage it's just specified that the false positive rate, for example, is 34 percent. But I think it's more that the risk of -- from his perspective, the risk of somebody being called positive when they're no longer infectious is 34 percent, for example.

Q So there -- sorry, didn't mean to cut you off. I'm sorry. Go ahead.

A Oh, sure. Yeah. And the other piece that I was just going to bring up because it is somewhat important is while culture is probably our best proxy for determining if somebody has infectious live virus, it's not necessarily the most sensitive of tests. And so there's probably a proportion of people who are going to be culture negative but still actually harbour live infectious virus. And so that's an important thing to note is that even if its going -- if the culture is negative for a sample that is PCR positive, that doesn't necessarily 100 percent take out that possibility of them harbouring some live virus.

Q All right. So if I understand that -- your answer correctly, what you're saying is when Dr. Bhattacharya uses the phraseology "functional false positive rate", he's talking about a situation where someone can test positive, however, they -- they're not -- they're not at a risk or they're very low risk of infecting someone else; is that correct?

A That's my interpretation of how that --

Q Okay.
A Yeah.

Q Thank you. It's my understanding though, and also Dr. Bhattacharya's, that subsequent to the writing of his opinion about that in general of last year, some other scientists have come out and shared his opinion on this particular point. One of them is a doctor named Dr. Jared Bullard. Are you familiar with Dr. Bullard's work?
A I am, yes. I am familiar, yes.

Q Okay. It's my understanding that Dr. Bullard is head of Cadham Provincial Laboratory in Winnipeg and that, like you, he's an expert in this field of PCR testing; is that your understanding as well?
A I don't know his specific areas of expertise but that probably is true. Certainly he's taking a lead in the COVID diagnostic response.

Q Okay. He had given evidence in another case that has been talked about a lot in this one called *Gateway* which was heard in -- last year in May in Manitoba. Are you familiar with the circumstances of that case at all?
A I am not familiar with the case in any kind of -- I guess I've never reviewed the case or anything like that.

Q Okay.
A But I am familiar that -- I know that Dr. Bullard did submit a report as well for that case is my understanding.

Q Okay. Dr. Bhattacharya had summarized Dr. Bullard's view on this issue of functional false positives as follows, he said:

> In samples drawn from Manitoba, Canada, only 44 percent of adult patients with a positive RT-PCR test had nasopharyngeal samples that were positive in a viral culture analysis.

Are you familiar with that -- with that report? Are you familiar with his work there?
A So Dr. Bullard, I know he has a couple -- at least a couple publications on doing -- comparing the real-time reverse transcriptase PCR tests to culture. He has a couple different publications, one that focuses on paediatrics, on children, and I believe another one that -- I don't know, I'd have to actually look back in the materials to see if they looked at adults and children in the other one but there's at least a couple of different research papers that he's released.

Q Okay. And the paediatric one, according to Dr. Bhattacharya the analogous numbers were only 19 percent for children less than 10, and 23 percent in children between 11 and 17. Is that consistent with your understanding of Dr. Bullard's -- or are you able to state that?
A So those are numbers of -- are those culture positive PCR positive samples from children from those age groups?

Q Right. Right. Based upon what he had said, and I just want to clarify this and then I want to hear your full answer; okay? So what Dr. Bullard had stated was that only 44 percent of adult patients with a positive RT-PCR test had nasopharyngeal samples that were positive in a viral culture analysis. And then he goes on to state that the analogous numbers were 19 percent for children less than 10 and 23 percent for children between 11 and 17. Is that consistent with your understanding of the paediatric study that you referenced?
A Yes, it is. Yeah.

Q Okay. And it's also my understanding from Dr. Bhattacharya that another report from Johns Hopkins University, not the one that we've been referencing, Mr. Parker, a different one, found a qualitatively similar result and concluded that the use of Ct values in clinical symptoms provides a more accurate assessment of the potential for infectious virus shedding. It doesn't sound to me like you particularly disagree with that assessment, Dr. Zelyas, or do I have that wrong?
A So I think -- I would say that Ct values for our analysis are probably -- they need to be viewed by -- they're challenging to work with I would say, they tend to be -- they're not validated viral loads per se and so Ct values are subject to variability from a number of different sources. Things like the type of collection that was performed, you know, throat or swab or nasal swab or something like that, you know, how it was transported to the lab, the transport medium used because there's a variety out there, as well as the storage conditions and the quality of the collection as well. You know, sometimes people are a little bit shy when they're taking swabs and they don't take a great sample. And so for that reason, it's challenging to interpret Ct values. You can attempt to look at Ct values in the clinical context of a patient. Certainly if someone has more than one swab collected, over a period of time that can be helpful if you know the patient's clinical course, that can be helpful in interpreting. But that's typically just done between microbiologists, virologists, public health and infectious disease physicians. It's not reported out.

Q So not to put too fine a point on it but I want to be clear about your evidence in this regard, do you disagree with Dr. Bhattacharya about the idea that the Ct values provide a more accurate assessment of the potential for infectious virus shedding? Would you

agree on that particular point or do you take issue with what he's stating there?

A So I do take some issue with it because there's a number of caveats that I -- that I just mentioned about using that cycle threshold, that Ct value, to determine level of infectiousness. It does give you a sense of how much viral RNA there is in a sample. It gives you a sense. But it doesn't -- it's not well -- well validated in the laboratory as a quantifiable or quantified result. And because of that, I don't think Ct values should be generally made broadly public for acute patient decision-making decisions really because we've seen so much variability in the Ct values even from patients who have the same symptom onset date, even on day 1 of symptoms there is a huge variability in those Ct values. And if you were to just use that Ct value without any of the clinical information or even with limited clinical information then -- then you would be at risk of misclassifying somebody as no longer infectious when in fact they're just on their first day of their infectious course and are indeed very infectious.

Q Okay. So in the -- in your report, Doctor, I note, and so did Dr. Bhattacharya, that you assert that the RT-PCR test is a gold standard for checking for the presence of SARS-CoV-2 virus. And is that -- do you maintain that opinion today?

A Yes. I would say that it is the gold standard or the reference method depending on what you want to call it and it -- but I do think some of the caveats that we've discussed, things like the fact that it can't distinguish between live and dead or non-viable virus is important to keep in mind, but it is that gold standard method for detecting an infection at some point in time with SARS-CoV-2. I would agree with that.

Q Okay. Doctor -- what Dr. Bhattacharya says about that, and I think -- in the main he agrees with you about the RT-PCR test being the gold standard, but he also says this and I want to put this to you, he says: (as read)

> The important question is not whether that test, the RT-PCR test, is a gold standard test or a viral presence but rather whether it is a gold standard test for determining whether a patient is infectious.

And Dr. Bhattacharya clearly opines that it is not. That this test is not the gold standard for determining whether or not a patient is infectious. Would you agree with that or do you take issue with it?

A Well, I would say that it certainly -- it cannot distinguish between live and dead virus. A PCR is not able to do that at this point. Yes. So I would say probably a better indication of transmissibility or infectiousness of a patient infected with SARS-CoV-2 is probably culture in that respect in determining whether or not someone's actively infectious if you were to use a test.

Q Okay. Thank you. Doctor, I'd like to refer you back to Dr. Bullard's work if I could.

There's an article that was published. So, you could see here, Dr. Zelyas, this is an article that summarizes the opinion of Dr. Bullard and he had given evidence as I said last year --

A Oh, this one. Right.

Q Yes. Have you seen this before, Dr. Zelyas?

A I don't think I've seen this article before.

Q Okay. Okay. So in it he says that PCR test results do not verify infectiousness for COVID-19 and were never intended to be used to diagnose respiratory illnesses. And this was actually part of his testimony in the case. He gave his testimony last year on May the 10th in Manitoba Court of Queen's Bench. Do you agree with his assessment there?

A So for that statement, I do agree with that PCR tests they don't verify infectiousness of COVID-19. That is true. However, the statement that they were -- that PCR tests were never intended to be used to diagnose respiratory illnesses I take issue with that. That is something that PCR tests are -- are designed to be done for.

Q Okay. Thank you. If you could turn to the next page please, Leslie.

So, Dr. Zelyas, there's a paragraph here, the third one down that begins with Dr. Bullard, do you see that? It says, "Dr. Bullard testified"?

A M-hm.

Q Okay. So: (as read)

> Dr. Bullard testified that PCR tests can be positive for up to 100 days after an exposure to the virus and that PCR tests do nothing more than confirm the presence of fragments of viral RNA of the target SARS-CoV-2 virus in someone's nose.

And he testified that:

> While a person with COVID-19 is infectious for a one to two-week period, non-viable (harmless viral SARS-CoV-2 fragments) remain in the nose and can be detected by a PCR test for up to 100 days after exposure.

Now, the way I read that, Doctor, is that's somewhat consistent with what you've been telling us but for this 100 days and so my question is do you agree with that assessment that this -- that this 100 days -- that there can be a positive test for up to 100 days after

exposure to the virus?

A So I suppose it is certainly possible, it has been documented now, that people can be PCR positive months up to -- certainly up to 100 days after they are infected with COVID-19. With the virus. That does occur. It's hard to quantify what the median or what the average is in terms of how long people normally shed for. From our own data that we've looked at, and I know I did not include this in my report at all, but we, you know, I think a more typical timeline is probably a few weeks than 100 days. Most people don't -- aren't actually positive for 100 days after a PCR test.

Q Right. So you would say that that isn't necessarily common but it could happen?

A That's correct, yes.

Q Okay. Thank you. The next paragraph there, Dr. Zelyas, it says that -- and here Dr. Bullard it appears agrees with what you told us about the best way to determine whether someone's actually infectious. He says -- it says here: (as read)

> Dr. Bullard testified the most accurate way to determine whether someone is actually infectious with COVID-19 is to attempt (INDISCERNIBLE) a cell culture and lab (INDISCERNIBLE) sample.

And I just heard you say the same thing; right?

A Yeah. Cell culture is probably our best -- our best representation of likely infectiousness of SARS-CoV-2.

Q Right. Right.

A Though I will say again that it does lack in sensitivity. It is that you -- yeah. Anyways, I'll just leave it at that. But, yeah, that's not a sensitive test. Yeah.

Q I don't want to cut you off. If you have something important to share with the Court, that's fine. But it says here, "If a cell culture will not grow the virus in the lab, a patient is likely not infectious," would you agree with that, Doctor?

A Likely, yes. Likely not infectious, yes.

Q Okay. And then here this is -- this is the part about the, you know, 44 or 56 ratio: (as read)

> A study from Dr. Bullard and his colleagues found only 44 percent of positive PCR test results would actually grow in the lab.

Is that consistent with your experience or have you done that kind of testing yourself in

your laboratory?

A So we haven't done any culture studies at our lab. And the 44 percent, it'll really depend on a number of factors like, you know, at what timing in someone's illness people are tested and cultured, et cetera, so -- so 44 percent it's hard to say exactly if that's, you know, what you would expect from culturing all PCR positive samples or specific subsets of different populations or during different timelines in someone's illness. I think that there's probably quite a bit of variability in that -- that number.

Q All right. Next paragraph, Doctor, it says: (as read)

> Dr. Bullard's findings call into question the practice used in Manitoba and elsewhere in Canada on the results of classifying positive PCR tests as cases which implies inactivity. Equating positive PCR tests to infectious cases as so many provinces have done over the past 13 months is incorrect and inaccurate according to Dr. Bullard.

My first question is, is what Dr. Bullard was describing there about what was happening in Manitoba, is that consistent with what -- with your knowledge of what was happening in Alberta during the relevant time period?

A In terms of defining a case as positive based on the PCR results alone?

Q Precisely.

A I'd have to actually go back to the notifiable disease guidelines. They have changed a few times. I do believe that certainly a confirmed case you do need to have some sort of laboratory evidence such as a positive PCR test or a positive rapid antigen test. I'd have to actually look to see if there's inclusion of symptoms or clinical factors in that -- that case definition. Yeah.

Q Okay. And this is a finer point here, it says: (as read)

> Equating positive PCR tests to infectious cases as so many provinces have done over the course of the past 13 months is incorrect and inaccurate.

Do you take issue with that or do you agree with that?

A Well I suppose it depends on how you define -- or what the purpose is of defining a case. So if -- I don’t totally agree that -- in the first sentence that defining something as a case implies infectivity at that given moment. Case counts are important not just for, you know, saying whether someone's infectious at that date in time but also to do contact tracing, to look back and to, you know, limit further spread by going back to their contacts, if it was quite awhile ago. It's also important for planning purposes to

know the number of cases that are occurring or that have occurred, whether or not they're infectious at the given time that they're sampled and tested. So I -- so if you are defining a case as it must at that moment in time be infectious then there is an issue there. But if you are using those case counts for things other than defining whether someone's infectious at the point of time of collection then it's a different matter.

Q All right. Thank you.

Leslie, could you please scroll down a little bit to the second last paragraph?

Dr. Zelyas, on the screen is a paragraph near the bottom that begins with the word "finally", do you see that?

A Yeah.

Q Okay. So here in the second paragraph -- sorry, in the second sentence of that paragraph beginning with, "Rather, Dr. Bullard," it says: (as read)

> Dr. Bullard testified that a PCR test will detect any viral RNA that is present in a sample 99.9 percent of the time.

Do you agree with that, Doctor? With that assessment?

A I would say it really depends on the test and it depends on some of those other factors that we talked about, you know, when the -- before the sample even hits the lab how it was collected, et cetera. But PCR is very sensitive if there is RNA present there so whether it's 99.9 percent or in the 90s, it's -- it's challenging to say but it is certainly high.

Q So it would be very high, you'd say upwards of 90 percent safely?

A Safely, yes.

Q All right. Thank you. The next sentence, Dr. Zelyas, says: (as read)

> However, Dr. Bullard testified that determining whether or not a sample is actually infectious containing a viable virus capable of replicating ...

So this would be back to Dr. Bhattacharya's word and yours was this functional false positive, it needs to be confirmed by a lab culture. And with that, I've heard you -- you agree with that, don't you?

A I would say that, you know, if -- yes. If you are trying to take a sample and define it as containing live virus and likely able to transmit to other people then, yes, culture would

be necessary for that.

Q All right. Thank you, sir. Dr. Bhattacharya, also in this vein, he indicated in reviewing your expert report he said that this error in the test that Dr. Bullard was talking about, this functional false positive, is a major problem with Alberta's epidemic policy making because it relies on the accuracy of the RT-PCR tests to determine whether an individual is infected with the virus. But that's true, isn't it? In other words, Alberta's epidemic policy which is the crucial one that we're talking about here really relies on this RT-PCR testing as opposed to the culture type testing that Dr. Bhattacharya's advocating for. Would you agree with that?

A So I would agree that PCR, if that test is being used to interpret someone as actively infectious at that moment that they're sampled, that could lead to misinterpretation of that result as we know that the virus could be picked up or the RNA could be picked up by the test after someone is an acutely ill and infectious time point. That being said, culture -- even though culture is a better or more accurate way of depicting someone's infectivity, culture just is not a very -- is just not a tenable method I guess to be used for routine clinical diagnostics anymore. It's just -- there's numerous issues with it in terms of its sensitivity as I've already mentioned but to culture SARS-CoV-2 you do require a special laboratory, a containment level 3 laboratory, which there are very few in the province that actually exist. So, if you were to try to do culture to diagnose someone with SARS-CoV-2 then you would -- you just wouldn't be able to actually keep up. It's not a scalable procedure or technique. So, while culture is I would say superior to PCR in determining whether someone is harbouring live virus, it's just not a method that can be used in current routine diagnostics.

Q Is that because you wouldn't be able to test enough people, essentially?

A That's part of it. So culture of SARS-CoV-2, well our lab doesn't do it and I'm certainly not an expert in that area per se, it does take typically around three to four days to run it as compared to a few hours for the PCR test. As well, as you mentioned, it's -- you can't run it for many people compared to PCR. PCR you can run thousands in a day. Culture would require more space and typically you need to have somebody actually looking at the culture every few days to see if it's becoming positive. So it takes a huge amount of manpower.

And then the other piece to this is it also requires quite a bit of expertise to recognize when a culture is positive. There is specific signs in that culture over time that indicate that there's a viral infection present and then even after that it's so non-specific. Like many different respiratory viruses can cause the same appearance in culture that you would need a PCR test probably -- you would need that positive culture, what looks positive, subjected to PCR to confirm that it actually is positive. So, it would be -- it would be an impossible kind of attempt if you tried to do that for a routine COVID

diagnostics in Alberta.

Q Okay. Based upon that, I expect what your answer is going to be to my next question but I'm going to ask you anyway. So, Dr. Bhattacharya says that the PCR tests' inaccuracies imply Alberta's epidemic planning does not reflect the risk of community spread of a virus because a high case count or positivity rate may be due instead to functional false positive outcomes. Do you agree with Dr. Bhattacharya on that point, sir?

A No. I think it's important to recognize that even if someone isn't currently infectious with the virus, if they are testing positive via PCR that does mean that they were recently infected with the virus and so that information is actually really important to understand what's going on in Alberta in terms of the spread of the virus, what it's causing, how many people are admitted with the virus and just all of that pandemic and epidemic planning is dependant on having those accurate numbers. And so if we were to use a different methodology like culture you would have a much more skewed, you wouldn't be able to pick up those previous infections or those cases in the same -- with the same sensitivity and so you would lose out quite a bit in understanding what's going on with the virus in terms of the total infected numbers of people.

Q Right. But if Dr. Bullard's numbers are correct, and I'm not saying that you agree that they are, that the PCR testing can be wrong 56 percent of the time, in the context of imposing sharp lockdowns that severely restrict people's liberty, with all the costs that are associated with that, and I realize you're not an expert in that area, that doesn't sound like very useful science. That doesn't like very -- that it's very effective science, does it? If we have the possibility that perhaps if we're using PCR testing as you say the gold standard, people's liberties are being severely restricted because of a test that could be wrong 56 percent of the time, that doesn't sound like very effective science, does it?

A So what I would say is that it's not wrong 56 percent of the time. That's actually the amount of time where it's detecting someone as positive when culture is turning up negative. So, culture isn't as sensitive as PCR in one area but it is still very important to be able to classify people as having been infected with SARS-CoV-2. It's -- and certainly for that kind of going back and doing contact tracing, having that information is important for further limiting spread.

Q Okay. But isn't the relevant question still whether the RT-PCR test is sufficiently accurate to be used as a tool to decide whether to sharply curtail the normal activities of people living in Alberta and imposing harms then that relate to lockdowns? Isn't that really the crucial question, is whether or not it is sufficiently accurate to justify those? Would you agree with that?

A I think that's an important question certainly that, you know, understanding whether or not PCR is the appropriate tool to use to, you know, define whether someone had

COVID or has COVID if you are going to be curtailing freedoms. Certainly it's an important --

MR. PARKER: So I am going to object to the question to the extent it asks this witness to speak on whether it's precise enough or accurate enough to curtail freedoms. He can speak to the science of PCR tests, he can't speak to whether it is accurate enough to curtail freedoms in some way that my friend is asking.

THE COURT: Okay. Mr. Grey?

MR. GREY: All right. That's fine. I'll withdraw the question, it's not crucial.

THE COURT: Okay.

Q MR. GREY: Okay. Dr. Zelyas, in your report, the way I read it, it asserts that it is inappropriate for laboratories to use or report Ct values because the RT-PCR test is a qualitative test and because it has difficulties in calibrating the results across laboratories. Does that -- does that accurately summarize what you said in your report?

A So that's one piece of it. So there certainly are issues around, you know, how you would go about evaluating a PCR test and making sure that the Ct values accurately reflect the amount of virus or RNA in a sample. That is certainly one concern. I would say probably the bigger concern is around the use of Ct values or the use of PCR to define whether or not someone's infectious when we already know that, you know, when you take a swab it's a very heterogenous sample, people aren't taking the same quality of swabs or depth of swabs, et cetera. That would be more my concern around the use of PCR tests to -- and Ct values to determine if someone is infectious or not.

Q All right. Dr. Bhattacharya also suggests that there's no reason provided in your opinion that -- that such calibration or results could not occur within laboratories and be used as a basis for decision-making as he says is recommended in the literature on PCR testing. Do you -- what's your response to that?

A So certainly a laboratory could develop a way of telling quantitively -- basically developing it into a quantitative PCR and no longer qualitative where you're able to report results instead of just positive or negative you could say, oh, there's 500 copies per millilitre in this sample or something like that; right? That is something that can be done; however, because the PCR itself -- because the sample itself is so heterogenous -- it's not like blood, we do report out viral loads quite a bit on using PCR tests for a number of different viruses but that's typically using a sample like blood which is very homogenous, it's very -- it's like a solution; right? Whereas, taking a swab which has

variable collection and variable I guess viscosity and there's a number of other factors that can affect that overall number of copies per millilitre that you could come out with, it wouldn't be -- it likely would be giving out results that wouldn't reflect necessarily the amount of virus that's actively live circulating in that individual.

Q All right.
A Yeah.

Q Sorry, I didn't mean to cut you off, sir. Did you need to finish your answer?
A No, no, no. That's fine. Thank you.

Q Okay. Doctor, Dr. Bhattacharya suggests, and I'm interested to hear your take on this, he suggests that a patient should only be counted as a positive case for COVID-19 if the RT-PCR test result indicates that the patient is very likely infectious and not counted otherwise. Do you agree with that?
A Again, it somewhat depends on what the use of that -- that result is. I, again, I think that understanding if someone's positive or not and if they were previously or currently infected with COVID still has important value for planning purposes and understanding what's going on with the pandemic.

Q Okay. Dr. Bhattacharya on this point also opines that if Ct values are considered, two PCR tests on the same patient taken 24 hours apart and analysed at the same laboratory could indicate whether viral load is increasing or stagnant in a patient. And he says that would be a better indication whether the patient was infectious or not rather than the same with PCR tests. Do you agree with that, sir?
A So, again, it depends. Because there's so much variability in that collection and in the sample itself, using those Ct values, those serially collect -- on the serially collected samples, it's certainly better than just taking one sample at one point in time and seeing what that Ct value and trying to draw a conclusion from that. I would say, taking two samples 24 hours apart or 48 hours apart, whatever you want to go with to a certain extent, would be preferable but there would still be, in terms of interpreting whether or not someone's infectious, but there's still those issues around, well, was the second sample collected as well as the first one? Is that the reason we're seeing a drop -- an increase in Ct values? You know, there's those issues that really need to be worked through. It's not as simple as necessarily collecting those two samples and then you have your answer based on the Ct values.

And then the other issue of course with that is if we do PCR testing on everybody and essentially double our volumes of testing that would pretty quickly, you know, increase turnaround times and exceed the capacity of the system as well.

Q Dr. Zelyas, in support of that point I just put to you, Dr. Bhattacharya refers to a World Health Organization report that was issued on the 13th of January 2021. Are you familiar with that report at all?
A Yes. I believe I am. Is -- well, go ahead. I'm pretty sure I am familiar with that report.

Q I'll describe the salient points and just get your -- need your response to it; okay? And if you need to refer to something else, feel free. We can take a break and you can do that; okay? But what Dr. Bhattacharya says is that this report I reference from January 2021 from the WHO issued a technical report that supports the points that Dr. Bhattacharya is making in this respect and he says that the report emphasizes two things: first, it points out that a positive COVID test does not necessarily mean that someone has any capacity of infecting someone else with the virus. And we've established that in your evidence and that's actually in your report; right?
A Yes, that is true.

Q Right. So that's not a contentious point. But he says that this WHO report says that, therefore, that WHO instructs laboratories to report the replication number as Dr. Bhattacharya suggests. Is that your understanding of what that report's recommendation is to laboratories?
A Right. This is the January 13th, 2021, WHO information notice for IVD users, is that the one?

Q Just so, yes.
A Okay. Right. So I do note that they do say provide the Ct value in the report to the requesting healthcare provider. So -- so they do have that in their actions to be taken by IVD users; however, the WHO isn't -- isn't one of our accrediting agencies and so we certainly -- we wouldn't do that based on this report.

Q Okay.
A And, in fact, it's not clear to me in this report if they're actually saying that you should provide the Ct value in the physical report or provide the Ct value to someone -- to a clinician who calls to ask because those are two somewhat subtly different things.

Q All right. What Dr. Bhattacharya's reading of this report is that, and this is the second relevant point that he makes about it, is that the WHO warns against relying on a single test for patients without considering clinical COVID-19 symptoms as Alberta does. And Dr. Bhattacharya says there's no mention in your expert report that a positive case must be assessed clinically after diagnosis with COVID based on that positive test. He says that the Alberta decision-making about the lockdowns is that's not aligned with WHO guidelines (INDISCERNIBLE) a PCR test data. Do you agree with that assessment?

A So I believe Alberta Health and Alberta Health Services have been -- were collecting data on symptomatic versus asymptomatic infections and so they were using that information in their planning in understanding the transmission of the virus from different groups of people and the rates -- just the overall rates of asymptomatic infection versus symptomatic infection in our province. And so, again, it does depend on how you're using those case counts and how you're interpreting them and I think, you know, certainly if someone is infected with SARS-CoV-2 or they have a positive result then they should be clinically assessed on some level, especially of course if they do have severe symptoms and need to present to emergency, et cetera, beyond of course just the transmission dynamics of COVID but also for their own clinical management. So that clinical -- clinical information is of course important for managing cases of COVID-19.

Q All right. When you talk about interpretation, this is Dr. Bhattacharya's and I want to get your take on this; okay? He says:

> Without knowing the Ct value of those positive tests, it is impossible to determine whether the proportion of people in the population who are at risk of spreading the disease is increasing or decreasing.

You agree with that?

A No. Just because of all of those issues with Ct values that we were discussing where it's not a validated lab value, you know, it has so many different variabilities before it even reaches the lab that we wouldn't feel comfortable relying on Ct values alone to define if someone's infectious or not.

Q Dr. Zelyas, one of the comments that Dr. Bhattacharya made in reviewing your expert report was this, and I want to get your response to this: (as read)

> Dr. Zelyas, in effect, argues that it is good public health practice to ignore the errors of the PCR test because it is in the interest of Canadian Public Health Authority to identify every single person virally infected and quarantine them, whether or not they posed any risk whatsoever in spreading the virus.

Do you agree with that assessment, sir?

A No. I think it's important that -- I think it's important to recognize the caveats of PCR testing, that it's important to understand that it doesn't necessarily identify everyone who's infectious at that given point of testing. Understanding, you know, what those caveats are and, you know, how you should be interpreting the test is very important in managing cases as well as in kind of doing that public health planning piece.

Q So when I look at page 5 of your opinion, do you have that in front of you, sir?
A I do, yeah.

Q There's a -- I believe it's the second sentence from the top, begins with the words "even". The word "even". "Even if". Do you have that, sir? So if I'm hearing you correctly, this is your -- I'm summing up basically what you just said I think, even if a patient is non-infectious at the time they are diagnosed as a case of COVID-19, you say it is still important that their contacts be identified to limit spread of the disease in the community. Is that -- is that accurate?
A Yes. Yes, that is true. Of course, I know that contact tracing has changed quite a bit throughout the pandemic with the province according to probably resources, et cetera, but at the time that I wrote this that contact tracing was a very important piece of controlling the pandemic.

MR. GREY: All right. Thank you, Dr. Zelyas. Those are my questions.

THE COURT: Thank you, Mr. Grey.

Mr. Rath?

MR. RATH: Yes. Thank you, My Lady.

The Witness Cross-examined by Mr. Rath

Q Now, Doctor, I don't want to mispronounce your name, I had a grade 3 teacher who was a Madam Zelyah (phonetic), so are you a Zelyah or a Zelyas?
A I'm a Zelyas.

Q Okay. There we go. Thank you. So, Dr. Zelyas, you're currently a member of the Alberta Health Services Scientific Advisory Group, are you not?
A That's correct, yes.

Q And I just noted looking at your CV you talk about appointments, you didn't list your appointment to the Scientific Advisory Group. Would you mind advising me as to when you were appointed to the Scientific Advisory Group?
A So when it actually began, I was basically the laboratory representative on the Scientific Advisory Group. So it -- it started very early in the pandemic when I became part of it. I don't exactly remember the exact date but I've been there since it began.

Q So was it March of 2020? April of 2020? May of 2020? Do you recall?
A I don't recall. I can't honestly recall.

Q Can you nail it down to a year?
A It would've been 2020. That's correct.

Q Okay. So it would've been during the first wave then; is that fair?
A I -- probably around that time. I don't know if it exactly was established during the first wave but it probably was either right before or around that time. I think that's fair.

Q Okay. And the -- do you agree that part of the role of the Scientific Advisory Group was to advise Dr. Hinshaw with regard to appropriate pandemic mitigation measures?
A That's part of it, yes.

Q So you would've been involved in -- as part of that group in advising Dr. Hinshaw with regard to non-pharmaceutical interventions in response to the pandemic; is that correct?
A Yes, that would've been one of the -- certainly some of the reviews were along those lines about those topics.

Q Right. And with regard to those reviews, with regard to those topics, do you recall cost benefit analyses having been done with regard to NPIs being inflicted upon the citizens of Alberta?
A MPIs or NPIs?

Q NPIs, non-pharmaceutical intervention such as lockdowns, masking, et cetera.
A I don't -- I'd have to actually look back. They've released quite a few documents. I'd have to actually go look back to see if they did do any kind of financial cost -- I assume you mean like financial, economic analysis; is that correct?

Q Or, I mean, do you recall discussions as an example with regard to potential increases in drug use, alcohol use, suicides, et cetera, arising from lockdown measures?
A I would actually have to go back and check to see if that was one of the topics. I -- I do not recall if they did discuss that, to be honest.

Q Okay. And in that regard, do you recall any discussions with regard to potential harms arising from non-pharmaceutical interventions at the Scientific Advisory Group?
A Well, one in particular that I do recall was there was certainly some discussion around -- between members about harms of -- potential harms of masking and around the benefits of masking of course. That was discussed. So certainly I remember there was an earlier SAG report, Scientific Advisory Group report, that did look at that specific intervention and -- and they do mention that -- I remember the discussion around that

was around potential harms as well with masking.

Q And in that regard, specific harms with regard to psychological damage to children, is that -- was that part of that discussion, sir?
A I -- I'm not sure. I remember specifically there was discussion about skin conditions associated with masking, but I don't remember if there was a discussion -- I cannot recall if there was a discussion on the psychological harms of children subjected to masking.

Q And are you aware, sir, were any of the members -- I have a list of the current members of the Scientific Advisory Group in front of me, are you aware whether any of the members of the Scientific Advisory Group were in fact psychiatrists or psychologists?
A I do not think any of them are to be honest. I don't think any of them are.

Q Thank you. Now, you were having a conversation with my friend with regard to Dr. Bullard's evidence in the *Gateway* case concerning the RT-PCR test and Dr. Bullard's finding that overall they found that only 44 percent of PCR tests that were viewed in a study that he conducted were capable of being cultured in a lab. Do you recall that discussion, sir?
A I do, yes.

Q And your view was that, in any event, PCR tests were useful in determining whether somebody either has COVID in the present tense or had COVID in the past tense and that that was useful information from a public health perspective; is that fair -- is that a fair summary of your testimony, sir?
A Yes. Yes, that's fair.

Q Right. Sir, do you believe or do you accept that people that have had COVID-19 and recover have developed natural immunity to COVID-19?
A Yes, that is my understanding. Certainly that people who are infected with COVID do develop a degree of -- a degree of immunity. And I know that there are a number of studies that I haven't personally reviewed that look at, you know, they compare that level of immunity to a vaccine-induced immunity as well.

Q Right. But -- so you do accept that somebody who's had COVID-19 and is recovered does in fact develop natural immunity to COVID-19; correct?

MR. PARKER: I'm going to object. This witness has been put up as an expert on PCR and this is outside of his scope of his opinion.

THE COURT: Mr. Rath?

MR. RATH: Madam Justice, under R. v. Nan (phonetic), we have a very wide scope of cross-examination that goes to the credibility of the witness. We are not limited to the four corners of his expert report. This witness, certainly from his qualifications on paper, seems qualified to answer this question. And, again, this seems nothing more than an interruption with my friend -- by my friend to head off the next question that I'm about to answer (sic) that he doesn't want to have answered and I would request that the witness answer the question, please.

THE COURT: There is no right to cross-examine an expert witness on areas outside of his or her expertise and any answer that would be forthcoming from that would not bear very much weight, Mr. Rath. I do not see how this kind of question could go to credibility.

MR. RATH: Well, let me just ask the next question, My Lady. It's not a question of credibility, I think it's a question of useful scientific information for the benefit of the Court in making a decision in this matter.

Q MR. RATH: My next question is, sir, is that to the extent that Dr. Bullard found that 56 percent of people that have been PCR tested may have had COVID and recovered, would that also be an indication to public health officials like yourself serving on the Scientific Advisory Group that, within the population as a whole, as much as 56 percent of the people tested weren't actually cases of COVID-19 but actually cases of people or an indication that 56 percent of the people that were tested were actually immune to COVID-19 through natural immunity. Do you agree with that, sir?

MR. PARKER: Again, objection on the same basis --

THE COURT: Yes.

MR. PARKER: -- as before. Also, this has been covered to some degree.

THE COURT: I agree. I am sorry, Mr. Rath, it is not within the expertise of the witness.

MR. RATH: All right. Thank you, My Lady. Those are my questions.

THE COURT: Okay. Thank you.

Anything arising, Mr. Parker?

MR. PARKER: No, Justice Romaine. Thank you.

THE COURT: Okay. Thank you, Dr. Zelyas. I am quite happy that as well as you having an opportunity to testify, we gave you the exciting experience of the courthouse alarm on your first time. But, thank you for testifying today.

A Thank you very much. Take care.

THE COURT: Thanks.

MR. PARKER: Thank you, Doctor.

(WITNESS STANDS DOWN)

Discussion

THE COURT: Okay. We still have an hour but --

MR. PARKER: But nothing specifically planned at this time, Justice Romaine. We are back with Dr. Kindrachuk at, I'm sorry, what time, at 11. I have put on the agenda speaking to exhibits tomorrow. If we're not able to reach agreement with my friends tonight, we should deal with that. We have the transcripts and can go through that pretty quickly and I think sort that out either in advance or after we're done with Dr. Kindrachuk.

THE COURT: Okay.

MR. GREY: Sorry --

THE COURT: Go ahead, Mr. Grey. Go ahead.

MR. GREY: (INDISCERNIBLE). I was just asking, is there actually a transcript, Mr. Parker?

MR. PARKER: Sorry, I have -- I've got several days of transcripts as they're coming in so I've got the first few days and I think the third day and maybe the -- so, yes, I am getting transcripts.

MR. GREY: (INDISCERNIBLE) at court or by Mr. Parker?

MR. PARKER: They were ordered by my assistant.

Sorry, Justice Romaine, go ahead.

THE COURT: Okay. I have also ordered transcripts and I am getting them.

MR. GREY: I haven't been receiving them but I'd like to see them. I haven't been receiving them.

THE COURT: Okay. Mr. Parker, what is your view on that?

MR. PARKER: Yes. I think my friend has to order them in the same way that my assistant has ordered them based on you having requested them. So I think he just has to take the steps that we've taken, is my understanding.

THE COURT: Right.

MR. GREY: Okay. Thank you. We'll do so.

THE COURT: Yes. Okay. Good.

MR. RATH: Madam Justice, I have a housekeeping matter as well that I'd like to raise and I'm not sure whether we can deal with it tomorrow or whether it'd be appropriate to deal with it by way of written submissions over the break as it pertains to the testimony of Dr. Hinshaw. But one of the curious aspects of this case is that we'd submitted a number of written questions to Dr. Hinshaw that were in accordance with the procedural order of Madam Justice Kirker and in the context of the case where my friends are arguing that Dr. Hinshaw did all things properly in section 29 of the *Public Health Act* as a decision-maker issuing Chief Medical Officer of Health orders, they've objected to a number of our written questions on the basis of either Parliamentary privilege or Cabinet privilege. We're of the view that that actually goes to the heart of the matter from a legal perspective, specifically (INDISCERNIBLE) making decisions under section 29 and they're -- her impugned orders are before the Court, there should be no privilege that attaches. But if my friends are taking the position that her orders have been subject to an ongoing interference by either members of Cabinet or members of the Legislature such that some form of privilege attaches then, again, we submit that no -- first of all, no privilege should attach, and secondly -- secondly that this may in fact -- these very objections may be fatal to my friend's case as it pertains to these orders having been issued under section

29 of the *Public Health Act.*

These are complex issues involving Parliamentary privilege, Cabinet privilege and otherwise and, you know, we just want some clarification as to how or when these objections are going to be dealt with given -- given the fact that they seem -- the objections seem very -- very at odds with my friends' continued insistence that these orders were properly issued under section 29 of the *Public Health Act.*

MR. PARKER: I'd like to just address that, Justice Romaine.

THE COURT: Of course, Mr. Parker. Go ahead.

MR. PARKER: Sure. The written questions were to Dr. Hinshaw, Justice Kirker gave a very narrow scope to those written questions, this was in her July 27th transcript, and the written questions were only to identify the source of information in Dr. Hinshaw's affidavit if the source is not otherwise in the affidavit. I don't have the written questions in front of me but I'll be glad to go to them. Not one of them actually fell within the limited scope that Justice Kirker ordered and they were objected to on that basis. I'm not sure where my friend is getting these comments about objecting on the basis of public interest immunity. So, that's the first point.

The second point is we had back and forth discussions before this matter was originally supposed to be heard in September. My friends indicated originally they were going to pursue some of these that had been objected to. The final answer from them was they were not going to be pursuing any of these objections. And so this is something that, again, was raised, dropped, and now is being raised again in the middle of the hearing. But, again, factually speaking, what my friend has said about the objections is incorrect. Thank you.

THE COURT: Thank you. Before you respond, Mr. Rath, I have read the questions and I have read the answers and the objections to answering the questions and I, too, was of the impression that the objections related to the fact that the question did not fall within the scope of the limited right to written questions set out in Justice Kirker's oral hearing order. I do not know whether I missed any that might have been on a different basis. That is number 1.

And, number 2, I would like you to address what Mr. Parker has just said about discussions among counsel and an agreement not to pursue the objections.

MR. RATH: We'll re-review the questions and answers. It's simply the ones that went to privilege that we're concerned about because they seem from a legal perspective to fly in the face of the Crown's position. But we can -- I just want to -

- I just wanted to raise it and this is an issue that we may need to resolve before Dr. Hinshaw's cross-examined because I don't want her examination to be continually interrupted by my friend somehow objecting on the basis that whatever question we were asking went to some form of either Cabinet privilege -- of Cabinet privilege. That's all.

THE COURT: Well then, Mr. Rath, I would like you to be prepared tomorrow to indicate which questions, if any, were objected to on the basis of Crown immunity; okay?

MR. RATH: We will. Thank you, My Lady.

THE COURT: Okay.

MR. RATH: Yeah. Thank you.

THE COURT: Thank you.

Okay. So we are starting at 9:00 tomorrow still?

MR. PARKER: We certainly can. We have -- we can talk to the exhibits then, but Dr. Kindrachuk will not be up until 11 AM. So, yes, we can certainly do that and break until -- see if we finish with the exhibits and start with Dr. Kindrachuk at 11 or we can start -- yeah, 9:00.

THE COURT: Okay.

MR. RATH: How much time do you think we need to deal with the exhibits? Because we can start at a more civilized hour tomorrow.

MR. PARKER: I'm fine with that, too, folks. We need to hear from you and so --

THE COURT: Sure.

MR. PARKER: -- if we are not going to have much argument I think an hour should be sufficient. I just want to take the time recognizing we're a number of days after they went to the witness to make sure I can give the Court the page numbers and the transcript where these exhibits were discussed and hopefully we won't have any disagreement. But, yeah, 9:30, would that work for everybody?

THE COURT: Sure.

MR. GREY: That would be fine. I think the theme of this hearing is that things tend to take longer than we think. But, yes, 9:30 would be fine, Mr. Parker.

THE COURT: Okay. 9:30 then. Okay. We will start at 9:30 tomorrow. Thank you.

MR. PARKER: Thank you.

PROCEEDINGS ADJOURNED UNTIL 9:30 AM, FEBRUARY 23, 2022

Certificate of Record

I, Michelle Palmer, certify that this recording is the record made of the evidence in the proceedings in the Court of Queen's Bench, held in courtroom 1702, virtual meeting room 16, at Calgary, Alberta, on the 22nd day of February, 2022, and that I was the court official in charge of the sound-recording machine during the proceedings.

Certificate of Transcript

I, Nicole Carpendale, certify that

(a) I transcribed the record, which was recorded by a sound recording machine, to the best of my skill and ability and the foregoing pages are a complete and accurate transcript of the contents of the record and

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