

From: Christine Massey [REDACTED]
Sent: June 30, 2020 12:14 PM
To: Lockyer, Kathryn <kathryn.lockyer@peelregion.ca>; Macintyre, Ava <ava.macintyre@peelregion.ca>; ZYG-RegionalClerk <zzg-regionalclerk@peelregion.ca>
Subject: Fwd: TSCA FLUORIDE Trial: Recap Of Day 3

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Dear Clerk,

I request that the email below be added to Council's next agenda.

Best wishes,
Christine

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June 30, 2020
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----- Forwarded message -----

From: Christine Massey [REDACTED]
Date: Thu, Jun 11, 2020 at 4:01 PM
Subject: Re: TSCA FLUORIDE Trial: Recap Of Day 3
To: <Nando.Iannicca@peelregion.ca>, <annette.groves@caledon.ca>, Crombie, Bonnie <bonnie.crombie@mississauga.ca>, Carolyn Parrish <carolyn.parrish@mississauga.ca>, Chris Fonseca <chris.fonseca@mississauga.ca>, <dipika.damerla@mississauga.ca>, George Carlson <george.carlson@mississauga.ca>, <gurpreet.dhillon@brampton.ca>, [REDACTED] Jennifer Innis <Jennifer.Innis@caledon.ca>, Johanna Downey <johanna.downey@caledon.ca>, John Kovac <John.Kovac@mississauga.ca>, Karen Ras <karen.ras@mississauga.ca>, Medeiros, Martin - Councillor <martin.medeiros@brampton.ca>, Matt Mahoney <Matt.Mahoney@mississauga.ca>, Palleschi, Michael - Councillor <michael.palleschi@brampton.ca>, Iannicca, Nando <nando.iannicca@mississauga.ca>, Saito, Pat <pat.saito@mississauga.ca>, Pat Fortini Councillor <pat.fortini@brampton.ca>, <Patrick.Brown@brampton.ca>, <paul.vicente@brampton.ca>, Starr, Ron <ron.starr@mississauga.ca>, <rowena.santos@brampton.ca>, <stephen.dasko@mississauga.ca>, McFadden, Sue <sue.mcfadden@mississauga.ca>, Mayor Allan Thompson <mayor@caledon.ca>, <mayor_tory@toronto.ca>, Premier of Ontario | Première ministre de l'Ontario <premier@ontario.ca>

Dear Council,

In follow up to my earlier message, the following (also from Fluoride Action Network) is "required reading" for anyone involved in fluoridating other people's drinking water:

<http://fluoridealert.org/content/the-tsca-trial-day-3/?eType=EmailBlastContent&eld=29c9dae0-362c-43c4-88e0-17ad6dcf6c18>

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The TSCA Trial. Day 3.

June 11th, 2020

THE THIRD DAY.

By Paul Connett, PhD, Director of FAN

Day 3, June 11, was very rich and rewarding for the plaintiff's case as presented by lawyers Michael Connett and Andy Waters. We heard from Dr Howard Hu, Dr Bruce Lanphear, Casey Hannan (excerpts from his videotaped deposition – the current director of the Division of Oral Health at the Centers for Disease Control and Prevention), Dr. Kristina Thayer from the US EPA and risk assessment specialist Kathleen Thiessen PhD.

Howard Hu, MD, MPH, ScD

The day began with a re-direct by Plaintiff's attorney Andy Waters of Dr Hu (Principal Investigator of the Bashash [2017](#) and [2018](#) mother-offspring studies), after his cross examination by the EPA's lawyers on Monday. An article in [Law360.com](#), described the study Dr Hu led:

"an epidemiological study ... that looked at the impact of fluoride consumption newborns and children by testing their mothers' urine before they were born and then later testing the children's IQ scores."

On re-direct, Dr Hu confirmed that

"his study "absolutely" found fluoride exposure to have a negative impact on young children, but declined to weigh in on policy recommendations, saying he didn't want him or his work to be seen as biased. He said he continues to study fluoride exposure and will report on the studies no matter what the results."

After Dr Hu came Dr Lanphear.

Bruce Lanphear, MD

Dr Lanphear is a world-renowned expert on the neurotoxicity of chemicals, Bruce Lanphear MD, a professor of health sciences at Simon Fraser University in Canada. Just as Dr Philippe Grandjean is the US EPA's go-to-person on mercury's neurotoxicity, Dr Lanphear is their go-to-person for lead's neurotoxicity.

As Law360 pointed out,

"Lanphear, whose research on environmental contaminants has been funded in part by the EPA, testified that he was not being compensated for his work in the legal case, but that he believed it

was part of his public service duty to participate in it... We've allowed children with rapidly growing brains to be exposed to toxins," Lanphear told the court.

One of those toxins Lanphear is concerned about is fluoride, based upon several studies conducted in Canada he has co-authored: [Till 2018](#), [Green 2019](#) and [Till 2020](#).

These studies have been described in some detail on the trending topics on FAN's website. Under the questioning of Michael Connett, Dr Lanphear explained that the [Till 2018](#) study showed that the levels of fluoride levels in mothers' urine in fluoridated cities in Canada (0.87 ppm) were very similar to the levels found in Mexico City in the Bashash studies (0.91 ppm) and that the level in the fluoridated cities was about twice the level in non-fluoridated cities in Canada (0.42 ppm).

Dr Lanphear also explained what was found in the [Green 2019](#) study. He explained that it essentially replicated the findings in the Bashash study, namely that there was a strong relationship between mothers' urine levels and lowered IQ in their offspring at 3-4 years of age, except they found this relationship in the boys and not the girls. However, he explained that this was not an unusual finding in development neurotoxicity studies, the same sex differences had been observed in some studies on lead and also in [Mullenix's 1995](#) landmark animal study. He added that the mothers' urinary levels were not the only measure of the mothers' exposure to fluoride: they also determined the fluoride levels in the community in which the mother lived and that correlated with the lowering of the IQ in both boys and girls. They also estimated the total dose of fluoride each ingested based upon a questionnaire which asked the mothers how much water and various beverages they drank each day. These estimated exposures also correlated with the loss of IQ in both boys and girls.

Before he went into the details on the [Green 2019](#) study Lanphear discussed the level of peer review they went through before JAMA Pediatrics would accept their article. He explained this was some of the most intense scrutiny he had ever experienced out of the many articles he has published in leading journals.

Finally, Dr Lanphear described the infancy exposure study of [Till 2020](#) (pre-published in Nov 2019). In this study the research team compared the IQ of formula-fed children who lived in fluoridated communities as babies to those who lived in non-fluoridated communities. They found a large drop of IQ in the non-verbal component of the IQ tests for the children who as babies were bottle-fed with formula in fluoridated communities.

On cross-examination, the EPA attorney used the same exhausting technique he had previously used on Dr Hu – a blunderbuss of questions on minutiae jumping from one paper to another as well as asking questions on both the Bashash studies and Dr Lanphear's own studies. The lawyer focused on the issue of creatinine measurement used to control for the dilution of the fluoride concentration that may occur if the mother drinks a higher level of water before testing. The judge could not understand the rationale for the questions and interrupted several times to try to understand.

On re-direct testimony obtained by Andy Waters in Hu's case and by Michael Connett in Dr Lanphear's case, both experts confirmed that the method of urine dilution correction would not affect the findings of associations between fluoride and neurodevelopmental deficits.

Casey Hannan, Director of the CDC's Division of Oral Health

Next on the stand was Casey Hannan. If Hu, Lanphear, Grandjean and Thiessen impress with their extraordinary credentials, the director of the entity, that claims to the world that fluoridation is "One of the top public health achievements of the Twentieth century," has none of the impressive credentials of our witnesses.

He is clearly out of his depth in the matter of any harm fluoride may cause to human health. He could offer no evidence of any papers that could show that fluoride does not cause any neurotoxic harm to the fetus or children. As he acknowledged, the focus of the CDC Oral Health Division is in promoting the benefits of water fluoridation for fighting tooth decay, and that they rely on other agencies to provide any evidence of harm. It took me back to the day that I testified at the first public meeting of the National Research Council committee in DC in late 2003. During an interval my wife, Ellen, asked William Maas, the head of this same entity at that time (1998-2008), what he thought about Jennifer Luke's work on fluoride and the pineal gland. He looked completely blank and then gestured towards the National Research Council (NRC) panel and said "We rely on them to answer questions like that."

And yesterday we witnessed the same thing, their reliance on the same [NRC \(2006\) report](#) – now 14 years old – for their knowledge of the harm fluoride may cause. Even so as Michael led him through this single document on which the CDC relies. The CDC should have known that there were red flags waving 14 years ago on fluoride's potential damage to both the brains of animals and humans. But that clearly has not made a scrap of difference in the CDC's whole-hearted support of putting fluoride into the drinking water of millions of children.

Kristina Thayer PhD

Next up was Kristina Thayer PhD, who previously worked at the National Toxicology Program (NTP) and oversaw a systematic review of animal studies on the neurotoxicity in 2016. Thayer is the current director of the EPA's Chemical and Pollutant Assessment Division. The [Law360](#) article reported her testimony:

"While there are limitations to the data collected in studies of the impact of fluoride exposure on animals, the animal studies support the conclusion that fluoride causes neurotoxic effects in humans...(she added) the human brain is more vulnerable to toxic agents at infancy than adulthood because infants don't have fully developed blood-brain barriers."

Kathleen Thiessen, PhD

Dr Kathleen Thiessen presented her testimony and was extremely impressive both in her command of the issue but also in her calm and convincing delivery. As she has not yet been cross-examined (she will do so on Friday, when the court reconvenes). I will report on her testimony after that.

Meanwhile, do please read her [incredible written statement now](#) before her cross-examination on Friday. It is such a professional piece in terms of her exhaustive coverage of the literature on fluoride as a hazard. It's a textbook example of how you construct a risk assessment using EPA's methodology. Along with Grandjean's evaluation using a BDML analysis on the human studies, [Thiessen's analysis](#) should be required reading by any student (or teacher) of risk assessment.

Christine Massey

