

Miller-Saunders, Kristi

From: Brian Riddell <briddell@PSF.CA>
Sent: May-24-16 11:02 AM
To: Miller-Saunders, Kristi
Subject: RE: Comments for Public Interest Panel meeting of the Strategic Salmon Health Initiative (SSHI)

I can reply to this

From: Miller-Saunders, Kristi [mailto:Kristi.Saunders@dfo-mpo.gc.ca]
Sent: May 23, 2016 9:39 PM
To: Brian Riddell <briddell@PSF.CA>
Subject: FW: Comments for Public Interest Panel meeting of the Strategic Salmon Health Initiative (SSHI)

Kristi Miller
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Pacific Biological Station
Nanaimo BC, Canada
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-----Original Message-----

From: Marty, Gary D AGRI:EX [mailto:Gary.Marty@gov.bc.ca]
Sent: Mon 5/23/2016 12:45 PM
To: Miller-Saunders, Kristi; 'Brian Riddell'
Subject: Comments for Public Interest Panel meeting of the Strategic Salmon Health Initiative (SSHI)

Hi Kristi and Brian,

I received an invitation [REDACTED] to attend a meeting of the Public Interest Panel on June 7. I responded, "On June 7, I will be traveling to the annual meeting of the Fish Health Section of the American Fisheries Society, so I will not be able to attend."

My input would be to ask for clarification about what the SSHI project has discovered.

In an e-mail that I sent to Kristi last Thursday, I provided public information about inflammation in the heart and skeletal muscle of BC fish that was reported up to three years before Friday's press release. This includes information that was reported in 2013 based on examination of fish from the same farm and the same outbreak as that reported in the press release. The information reported publicly in 2013 included, "these fish had inflammation of the heart and skeletal muscle, which are two features of HSMI".

Disease (definition) = any deviation from normal structure or function of a part, organ, or system of the body; the cause might be unknown; and, the mere presence of an infectious agent does not mean that the infectious agent is causing disease.

s.19(1)

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s.21(1)(a)

s.21(1)(b)

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My understanding from our meeting on Wednesday is that the pathologists (Ferguson, DiCicco, and Marty) agree that the fish from the affected farm had inflammation of the heart and skeletal muscle, and we agree that these are the two morphologic features of HSMI. The only difference is that the SSHI team seems to be using a case definition for HSMI that is different from the HSMI case definition used over the past decade by the BC veterinarians, which could be stated in this way:

BC veterinarians - HSMI is diagnosed based on characteristic abnormalities in the heart and muscle, AND characteristic clinical signs (e.g., fish are lethargic, eat poorly, and growth is slower than normal).

SSHI researchers - HSMI is diagnosed based on characteristic abnormalities in the heart and muscle.

[REDACTED] when I read things like the following in a CBC news report (emphasis mine):

"A feared viral disease proven deadly in Norwegian fish farms has been confirmed for the first time by federal scientists studying farmed salmon in B.C.

Heart and Skeletal Muscle Inflammation (HSMI) has been linked to the deaths of up to 20 per cent at some Norwegian farms.

"The concern is that it is a disease that hasn't previously been detected in B.C. and at the present time we really don't have sufficient evidence to know if it causes mortality or is a production issue here," said Kristi Miller, part of a team of federal scientists studying farmed fish samples from sites along the B.C. coast."

<http://www.cbc.ca/news/canada/british-columbia/farmed-salmon-bc-disease-hsmi-aquaculture-1.3593958>

I suspect that the first sentence ("confirmed") [REDACTED] And, I understand that reporters do not always get quotes correct, and they sometimes take words out of context. However, readers are likely to assume that the quote correctly captures what was said, and they are likely to assume that the quote is representative of the scientific integrity of the SSHI team. Also, it is unlikely that reporters from two independent organizations would make the same mistake. Today's article in the Globe and Mail has similar statements (emphasis mine):

"But it was a surprising diagnosis nonetheless, because the disease had not been detected before in B.C., although it is found in aquaculture operations globally.

It might be argued that HSMI should have been discovered much earlier, given all the testing routinely done on farmed fish on the West Coast.

But Dr. Miller, head of molecular genetics for Fisheries and Oceans Canada, said the disease may have escaped detection because it was not fatal to the infected fish, and did not affect the productivity of the farm - that is, the sick fish looked healthy.

She has found it now, however, as part of a long-term study of fish health that is using revolutionary DNA sequencing technology developed in her lab."

I do not want the SSHI to be seen as a project that takes credit for discoveries that were previously reported by other scientists. My understanding is that the SSHI team confirmed the presence of a disease that has long been detected in BC. And, microscopic features of the 2013 outbreak reported by DFO last Friday were first reported publicly by another researcher (me) in 2013. Reports from 2013 and 2015 have described disease in the heart and muscle of BC farmed Atlantic salmon, and pathologists at Wednesday's meeting seemed to agree that it is the same disease as reported in the DFO press release. However, the BC disease was not previously

called HSMI. What seems to be new is that the SSHI team now calls the BC disease HSMI.

Best regards,

Gary

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