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Statement from Dr. Fred Kibenge, OIE Expert for ISA:

The OIE Reference Laboratory for infectious salmon anaemia (ISA) at the Atlantic Veterinary College, UPEI, is an independent laboratory and a leader in the field of ISA research. As part of a public institution, the laboratory performs diagnostic testing for clients in an objective and scientific manner, and provides test results to them. The subsequent use of those results is a matter for clients to determine and is beyond the control of the laboratory. In the case of some viruses, the laboratory also reports findings to the Canadian Food Inspection Agency as required by the Federal Health of Animals Act.

In this case, the OIE Reference Laboratory was asked by a client to test samples from the hearts of 48 sockeye salmon smolts. The samples were each about the size of a grain of rice and were not collected by the laboratory. The laboratory used an internationally recognized and highly sensitive screening test called RT-PCR to test the samples. This test screens tissue to see if viral genetic material — or viral sequences — indicative of a particular virus is present. Each virus has a unique genetic sequence, and the test determines whether that sequence is present in a sample. The test results in this case, which included two positive results for ISA virus (ISAV) sequences, were communicated to the client and to the Canadian Food Inspection Agency in accordance with standard procedure.

It is important to note that the presence of ISAV sequences in the tissue samples does not necessarily mean that the fish in question have the actual disease, ISA, or that ISA is present in the area where the fish were collected by the client. Viral material can be present in animals and humans without them actually having the associated disease. In order to confirm whether an infectious viral disease is present, further testing is required. The OIE definition (confirmation) of ISAV infection requires that the virus be successfully grown in cell culture. Thus, the PCR test should be viewed as a highly sensitive screening test that, if positive, is only the first diagnostic step in documenting an ISAV infection should one exist.

As a global leader in this area of research, the OIE Reference Laboratory at the Atlantic Veterinary College recognizes the seriousness of ISA and is collaborating with the Canadian Food Inspection Agency on this case and sharing its expertise on ISA.

Background:

The OIE Reference Laboratory for ISA was established at the Atlantic Veterinary College in 2004 and is one of only two such laboratories in the world. The laboratory is led by Dr. Fred Kibenge, Professor of Virology, who is widely acknowledged as a world-leading expert on ISA. The OIE has a global network of more than 225 Reference Laboratories and 40 Collaborating Centres specializing in different animal diseases or topics.

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