



International Isotopes Inc.

FOR IMMEDIATE RELEASE:

December 7, 2021

**INTERNATIONAL ISOTOPES INC. ANNOUNCES EXCLUSIVE LICENSING AGREEMENT
FOR COMMERCIALIZATION OF A RADIOLABELED ANTIBODY TEST FOR DETECTING
SARS CoV-2**

**The Company Believes The Technology Could Have Much Broader Applications
to Address Other Viruses Or
The Next Emerging Pandemic Infection**

IDAHO FALLS, IDAHO, December 7, 2021. International Isotopes Inc. (OTCQB: INIS) (“International Isotopes” or “INIS”) is pleased to announce updated information regarding research it has been funding towards an advanced disease testing procedure for SARS CoV-2, the virus responsible for the COVID pandemic.

International Isotopes has executed an exclusive licensing agreement with Memorial Sloan Kettering Cancer Center (MSK) for a patent pending radiolabeled antibody test for detecting SARS-CoV-2. On January 21, 2021, International Isotopes first announced that it had been funding the research and development of an advanced COVID test at a leading research hospital, and we are pleased to provide this update and supplemental information.

In early 2021, INIS and MSK entered into a sponsored research agreement to further advance and develop research being conducted at MSK using radiolabeled antibodies to develop an accurate, inexpensive, portable, high volume, rapid and non-invasive saliva-based testing kit to detect SARS CoV-2. The sponsored research effort was successful and after a series of *in vitro* assays to define the sensitivity, specificity, and automation of the testing kit, the testing procedure was further validated at John Hopkins University using live SARS-CoV-2 virions diluted at different plaque-forming unit (PFU) concentrations. The new testing procedure successfully detected SARS CoV-2 virions at a concentration as low as 19700 PFU/mL (corresponding to 2.04×10^8 copies/mL) and as high as 1970000 PFU/mL, confirming the efficacy of the new testing procedure. While the initial research focused on SARS-CoV-2 detection, INIS plans to support additional research and development to apply the new testing method to other viruses.

Briefly, a patient’s saliva is diluted with a radiolabeled virus targeted antibody to form a solution. The solution is then placed in a centrifuge, and by using a filter, target bound antibody is size separated from unbound antibody. Detection of the radiochemical in the target bound antibody sample indicates virions. A very large number of samples could be placed into the centrifuge simultaneously, supporting efficient high-volume testing.



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In terms of accuracy, using an assay the radiolabeled antibody shows a normalized target binding fraction percentage of 1.73 at 2.5 nanograms (ng), confirming both the affinity of the radiolabeled antibody to bind to the Spike S1 on the virus surface and detection of Spike S1 at levels as low as 2.5 ng. The test requires a very small volume of approximately 1 ml of saliva. High volume sample analysis takes approximately 30 minutes and does not require a sterile environment or expensive equipment such that the new testing technology can be deployed to countries and locations with limited resources.

The licensing agreement with MSK gives International Isotopes the exclusive right to commercialize the invention, which is covered by pending patent applications. INIS would like to thank the research team at MSK for their successful work to date on this exciting new virus testing methodology.

Steve Laflin, CEO of INIS commented, “We are pleased with the excellent results we have seen to date with this new methodology of viral detection and testing. The prospect of developing a quick, inexpensive, accurate, sensitive, non-invasive, saliva-based test for SARS CoV-2, its variants, and any future SARS type virus, is exciting. We are eager to begin testing on other viruses since the targeting capability and affinity of the radiolabeled antibody to bind to the Spike on the virus surface should be applicable to other viruses such as influenza or viral cancers. We are currently evaluating the cost benefit of pursuing FDA Emergency Use Authorization for COVID detection given the large number of tests currently on the market. We will keep shareholders apprised as the commercialization plan matures.

As a result of the licensing arrangement noted in this release, MSK has institutional financial interests in the technologies and in International Isotopes.

About International Isotopes Inc.

International Isotopes Inc. supplies sodium iodide I-131 as an FDA approved generic drug product and manufactures a full range of nuclear medicine calibration and reference standards. The Company also provides cobalt-60 products for medical and industrial applications.

International Isotopes Inc. Safe Harbor Statement

Certain statements in this press release are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including statements with respect to the Company's future growth expectations and the commercial viability of the SARS CoV-2 test. Information contained in such forward-looking statements is based on current expectations and is subject to change. These statements involve a number of risks, uncertainties and other factors that could cause actual results, performance or achievements of International Isotopes Inc. to be materially different from any future results, performance or achievements of the Company expressed or implied by these forward-looking statements. Other factors, which could materially affect such forward-looking statements, can be found in the Company's filings with the Securities and Exchange Commission at www.sec.gov, including its Annual Report on Form 10-K for the year ended December 31, 2020. Investors, potential investors, and other readers, are urged to consider these factors carefully in evaluating the forward-looking statements and are cautioned not to place undue reliance on such forward-looking statements. The forward-looking statements made herein are only made as of the date of this press release and International Isotopes, Inc. and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

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