

Organovo Announces Commercial Release of the exVive3D™ Human Liver Tissue

November 18, 2014 3:18 PM ET

SAN DIEGO, Nov. 18, 2014 /PRNewswire/ -- Organovo Holdings, Inc. (NYSE MKT: ONVO) ("Organovo"), a three-dimensional biology company focused on delivering breakthrough 3D bioprinting technology, today announced the full commercial release of the exVive3D™ Human Liver Tissue for preclinical drug discovery testing. Initially, clients will be able to access the technology through Organovo's contract research services program. This model is intended to provide human-specific data to aid in the prediction of liver tissue toxicity or ADME outcomes in later stage preclinical drug discovery programs.

Organovo's exVive3D Liver Models are bioprinted, living 3D human liver tissues consisting of primary human hepatocytes, stellate, and endothelial cell types, which are found in native human liver. The exVive3D Liver Models are created using Organovo's proprietary 3D bioprinting technology that builds functional living tissues containing precise and reproducible architecture. The tissues are functional and stable for at least 42 days, which enables assessment of drug effects over study durations that well beyond those offered by industry-standard 2D liver cell culture systems.

Organovo has previously shown that exVive3D Liver Models produce important liver proteins including albumin, fibrinogen and transferrin, synthesize cholesterol, and possess inducible cytochrome P450 enzymatic activities, including CYP 1A2 and CYP 3A4. The exVive 3D Liver has successfully differentiated between structurally related compounds with known toxic and non-toxic profiles in human beings, and the model has also been employed successfully in the detection of metabolites at extended time points *in vitro*. Importantly, the configuration of the bioprinted liver tissues enables both biochemical and histologic data to be collected so that a customer can investigate compound responses at multiple levels.

The durability and functionality of the 3D liver product enable the assessment of the effects of low dose or repeated dosing regimens across a spectrum of biochemical, molecular, and histologic end points. All testing will be performed at Organovo's facility by the Company's laboratory services tissue experts.

For more information or to discuss specific study requirements, clients can contact us at sales@organovo.com, or visit our website at www.organovo.com.

About Organovo Holdings, Inc.

Organovo designs and creates functional, three-dimensional human tissues for medical research and therapeutic applications. The Company is collaborating with pharmaceutical and academic partners to develop human biological disease models in three dimensions. These 3D human tissues have the potential to accelerate the drug discovery process, enabling treatments to be developed faster and at lower cost. The company plans to market its first product of a planned portfolio offering, a 3D Human Liver Tissue for use in Toxicology and other preclinical drug testing prior to the end of 2014, and remains on track to bring this breakthrough technology to customers. In addition to numerous scientific publications, the Company's technology has been featured in The Wall Street Journal, Time Magazine, The Economist, and numerous others. Organovo is changing the shape of medical research and practice. Learn more at www.organovo.com

Safe Harbor Statement

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. Any forward-looking statements contained herein are based on current expectations, but are subject to a number of risks and uncertainties. The factors that could cause actual future results to differ materially from current expectations include, but are not limited to, risks and uncertainties relating to the Company's ability to develop, market and sell products based on its technology; the expected benefits and efficacy of the Company's products and technology; the market acceptance of the Company's

products; and the Company's business, research, product development, regulatory approval, marketing and distribution plans and strategies. These and other factors are identified and described in more detail in our filings with the SEC, including our annual report on Form 10-K filed with the SEC on June 10, 2014 and its report on Form 10-Q filed with the SEC on November 7, 2014, as well as our other filings with the SEC. You should not place undue reliance on these forward-looking statements, which speak only as of the date that they were made. These cautionary statements should be considered with any written or oral forward-looking statements that we may issue in the future. Except as required by applicable law, including the securities laws of the United States, we do not intend to update any of the forward-looking statements to conform these statements to reflect actual results, later events or circumstances or to reflect the occurrence of unanticipated events.

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Mike Renard, EVP, Commercial Operations, 858-224-1006, mrenard@organovo.com