Organovo Presents Data on Creating Stem Cell-Based Bioprinted Kidney Organoids at the International Society for Stem Cell Research (ISSCR) 2019 Annual Meeting

July 8, 2019

SAN DIEGO, July 08, 2019 (GLOBE NEWSWIRE) -- Organovo Holdings, Inc. (NASDAQ:ONVO) ("Organovo"), a biotechnology company pioneering the development of 3D bioprinted tissues aimed at treating a range of serious diseases, presented data on fabricating stem cell-based kidney tissues at The International Society for Stem Cell Research 2019 Annual Meeting held in Los Angeles, Ca. from June 26-29, 2019.

Organovo has continued to adapt stem-cell based approaches to developing kidney tissues using its leading 3D bioprinting platform. The Company has demonstrated the automated production of complex kidney organoids, with potential future applications including *in vitro* disease modeling and the treatment of patients with renal disease.

"Partnerships with world-class institutions can accelerate groundbreaking work in finding cures for critical unmet disease needs and the development of implantable therapeutic tissues," said Taylor J. Crouch, CEO, Organovo. "Our recently announced collaboration with Murdoch Children's Research Institute ("MCRI") and Professor Melissa Little has made our work automating the fabrication of kidney organoids possible. By combining MCRI's proprietary approach for modeling human kidney tissue from stem cells and Organovo's 3D bioprinting platform, we're able to produce detailed kidney tissues, which is a key step toward advancing this promising technology for both drug testing and therapeutic applications. We're hopeful that this will be an important step along the way in treating kidney disease."

The Company's poster is as follows:

Title: **Bioprinted Pluripotent Stem Cell-Derived Kidney Organoids Provide Opportunities for High Content Screening**

Poster: T-4013

https://organovo.com/bioprinted-pluripotent-stem-cell-derived-kidney-organoids-provide-opportunities-for-high-content-screening-2/

About Organovo Holdings, Inc.
Organovo is a biotech platform company that has developed a leadership position with its revolutionary ability to 3D bioprint tissues with human functionality. The Company is pursuing IND-track programs to develop its NovoTissues® to address a number of serious unmet medical needs, initially focusing on liver disease. Organovo's program for Alpha-1-antitrypsin deficiency received orphan drug designation from the FDA in 2017. The Company is also providing access to its ExVive™ *in vitro* tissue platform to facilitate high value drug discovery and development collaborations. Organovo's wholly-owned subsidiary, Samsara Sciences, provides the Company and its clients with high quality human liver cells for research applications. Organovo is changing the shape of life science research and transforming medical care. Learn more at www.organovo.com.

Forward-Looking Statements
Any statements contained in this press release that do not describe historical facts 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. Forward-looking statements include, but are not limited to, statements regarding the potential benefits and therapeutic uses of the Company's therapeutic liver and kidney tissues, including the benefits of an orphan designation; the Company's expectations regarding the FDA regulatory pathway and anticipated timelines for its regulatory filings; the Company's ability to successfully complete additional preclinical studies, improve its manufacturing processes and demonstrate the prolonged functionality and therapeutic benefits of its therapeutic liver tissue; the Company's ability to implement clinical scale manufacturing and quality processes; the Company's ability to meet market demand; the Company's ability to fund its future operations and business plans; and acceptance of its disease modeling and other in vitro tissue platforms. The factors that could cause the Company's actual future results to differ materially from current expectations include, but are not limited to, risks and uncertainties relating to the possibility that the final results of the Company's earlier preclinical studies may be different from the Company's later preclinical studies and may not support further clinical development of its therapeutic tissues, or that the results of the Company's preclinical studies may be different from the results of its clinical trials; the Company may not successfully complete the required preclinical and clinical trials required to obtain regulatory approval for its therapeutic tissues on a timely basis or at all; the novelty of the therapeutic approach and risks relating to its adoption rate by clinicians; the complexity of the manufacturing process and the effort involved in developing GTP and GMP facilities; the nascence of the industry and the lack of experienced GMP manufacturing organizations for bioprinting tissues; risks relating to the Company's ability to successfully scale up from research to clinical tissue patches; risks relating to the Company's reliance on a single supplier for clinical grade organs, including that the Company may not be able to obtain sufficient raw materials to meet clinical or commercial demand for its therapeutic products; risks that competitive products may adversely impact the market opportunity for the Company's therapeutic tissue candidates; the Company's ability to develop, market and sell products and services based on its technology; the expected benefits and efficacy of the Company's products, services and technology; the Company's ability to successfully complete studies and provide the technical information required to support market acceptance of its disease modeling and other in vitro tissue products, services and technology, on a timely basis or at all; the Company's ability to raise sufficient funds to support its business plan and ongoing operations; the Company's ability to regain compliance with the NASDAQ Global Market's listing requirements and ability to remain listed on the NASDAQ Global Market exchange; the Company's business, research, product development, regulatory approval, marketing and distribution plans and strategies, including its use of third party distributors; and the Company's ability to recognize deferred revenue. These and other factors are identified and described in more detail in the Company's filings with the SEC, including its Annual Report on Form 10-K filed with the SEC on June 3, 2019. 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 the

Company may issue in the future. Except as required by applicable law, including the securities laws of the United States, the Company does 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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