Organovo Collaborates With MCRI and Leiden University Medical Center to Develop Stem Cell-Based Bioprinted Tissue Treatments for Kidney Disease

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SAN DIEGO, May 30, 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, today announced a collaboration with Professor Melissa Little at the Murdoch Children's Research Institute ("MCRI"), The Royal Children's Hospital, Melbourne, Australia and Ton Rabelink at Universiteit Leiden ("LUMC"), Leiden, Netherlands. The project will expand the use of 3D bioprinted stem cell-based therapeutic tissues to applications aimed at treating end-stage renal disease. This multi-organizational effort integrates Organovo's leading bioprinting platform with MCRI's advanced stem cell differentiation technology and LUMC's cell lines and clinical expertise. The collaboration has been made possible through generous funding from Stem Cells Australia and CSL Limited.

"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. "This collaboration is another important step in this direction. With the devoted support of Stem Cells Australia and CSL Limited, leading researchers are able to leverage Organovo's powerful bioprinting technology platform to achieve significant breakthroughs."

"We have continued to advance and refine our proprietary approach for modeling human kidney tissue from stem cells," remarked Professor Melissa Little, Theme Director of Cell Biology at Murdoch Children's Research Institute. "By using Organovo's bioprinter, we can create a stem-cell based therapeutic tissue that may serve as an important step in treating kidney disease. We are grateful to Organovo, Stem Cells Australia and CSL Limited for their ongoing support of our work in regenerative medicine."

"The collaboration between Organovo and Professor Little is an outstanding example of the translational partnerships fostered by the Stem Cells Australia MRFF accelerated research program," stated Professor Christine Wells, deputy program lead, Stem Cells Australia. "The goals of the program are to link experts in bioengineering, stem cell biology and clinical research to address therapeutic gaps in areas of critical unmet need."

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.

About Murdoch Children's Research Institute
Murdoch Children's undertakes research into infant, child and adolescent health. As the largest child health research institute in Australia, our 1500 researchers are working hard to translate the knowledge we create from our research into effective prevention, early intervention and treatments for children. We strive for a healthier community, fewer sick kids visiting hospitals, and the best possible care for children who unfortunately become ill. The Murdoch Children's has a proud history of scientific discovery since its inception in 1986, and is currently based at The Royal Children's Hospital in Melbourne, Australia. For more information please visit: www.mcri.edu.au.

About Stem Cells Australia
Stem Cells Australia was established in 2011 with the support of the Australian Government, through the Australian Research Council's Special Research Initiatives scheme. The MRFF accelerated research program, funded by the Department of Health, aims to harness the potential of stem cells for diagnostic, therapeutic and biotechnological purposes. Stem Cells Australia links over 300 experts in bioengineering, nanotechnology, stem cell biology, advanced molecular analysis and clinical research across Australian universities and research institutes.

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 tissue, 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 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 May 31, 2018. 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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