

Iovance Biotherapeutics and MaSTherCell Announce New Manufacturing Services Agreement in Europe

SAN CARLOS, CA and GOSSELIES, BELGIUM – October 18, 2018 – Iovance Biotherapeutics, Inc. (NASDAQ: IOVA), a biotechnology company developing novel cancer immunotherapies based on tumor infiltrating lymphocyte (TIL) technology, and MaSTherCell S.A. a subsidiary of Orgenesis Inc. (NASDAQ: ORGS) through Masthercell Global Inc., a cell therapy-dedicated Contract Development and Manufacturing Organization (CDMO) today announced that the two companies have entered into a new three-year Manufacturing Services Agreement. MaSTherCell will manufacture TIL for Iovance’s European late-stage clinical trials in its commercial-ready cGMP manufacturing suites.

“We are pleased to be expanding our clinical and manufacturing capacity in Europe through this new collaboration with MaSTherCell. We have been dosing patients with lifileucel in Europe for the treatment of metastatic melanoma and LN-145 for the treatment of cervical cancers. As part of our global development plan for our TIL product, we are initiating the IOV-COM-202 trial in Europe as well and have received approval from Medicines and Healthcare products Regulatory Agency (MHRA). This newly established relationship with MaSTherCell will add additional commercial-ready capacity to support our ongoing and upcoming trials,” said Dr. Maria Fardis, PhD, MBA, president and chief executive officer of Iovance Biotherapeutics. “MaSTherCell specializes in clinical and commercial manufacturing of cell therapy as well as process development which brings valuable expertise and capabilities to our development program. We look forward to working with them to deliver our TIL product to patients with solid tumors across Europe.”

“We are glad that Iovance called on our expertise to accelerate the development of their TIL products. By addressing the unmet needs for solid tumor treatment, the outcome of this project could represent an enormous hope for a considerable number of patients,” commented Dr. Denis Bedoret, General Manager of MaSTherCell. “MaSTherCell is really pleased to welcome Iovance in its new commercial plant for advanced cell therapy manufacturing.”

About Iovance Biotherapeutics, Inc.

Iovance Biotherapeutics, Inc. is a clinical-stage biotechnology company focused on the development of cancer immunotherapy products for the treatment of various cancers. The company's lead product candidate is an adoptive cell therapy using TIL technology being investigated for the treatment of patients with metastatic melanoma, recurrent and/or metastatic squamous cell carcinoma of the head and neck, recurrent, metastatic or persistent cervical cancer and locally advanced or metastatic non-small cell lung cancer. For more information, please visit <http://www.iovance.com>.

About MaSTherCell

MaSTherCell S.A. is a dynamic and global Contract Development and Manufacturing Organization (CDMO) on a mission to deliver optimized process industrialization capacities to cell therapy organizations, and speed up the arrival of their therapies onto the market. MaSTherCell is a subsidiary of MaSTherCell Global Inc.– a gathering of MaSTherCell in Belgium, Atvio Biotech Ltd., an Israel-based CDMO, and Curecell Co. Ltd., a Korea-based CDMO partner. Masthercell Global is majority-owned by Orgenesis Inc. (Nasdaq:ORGS), a cell therapy and regenerative medicine company that is committed to developing a cure

for Type 1 diabetes. At the heart of MaSTherCell is a team of highly dedicated experts combining strong experience in cGMP cell therapy manufacturing with a technology-focused approach and a substantial knowledge of the industry. From technology selection to business modeling, GMP manufacturing, process development, quality management and assay development, MaSTherCell's teams are fully committed to helping their clients fulfill their objective of providing sustainable and affordable therapies to their patients. The company operates in a validated and flexible facility located in the strategic center of Europe within the Walloon healthcare cluster, Biowin. For more information, please visit www.masthercell.com.

Forward-Looking Statements

Certain matters discussed in this press release are "forward-looking statements" of Iovance Biotherapeutics, Inc. (the "Company"). The Company may, in some cases, use terms such as "predicts," "believes," "potential," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. In particular, the Company's statements regarding clinical trials and manufacturing capabilities and collaborations in Europe are examples of such forward-looking statements. The forward-looking statements include, but are not limited to, risks and uncertainties relating to the success, timing, projected enrollment, manufacturing capabilities, and cost of our ongoing clinical trials and anticipated clinical trials for our current and future product candidates (including both Company-sponsored and collaborator-sponsored trials), such as statements regarding the timing of initiation and completion of these trials; the timing of and our ability to obtain and maintain U.S. Food and Drug Administration or other regulatory authority (including regulatory authorities in the United Kingdom and elsewhere in Europe) approval of, or other action with respect to, our product candidates; the strength of the Company's product pipeline; the successful implementation of the Company's research and development programs and collaborations; the success of the Company's manufacturing, license or development agreements; the acceptance by the market of the Company's product candidates, if approved; and other factors, including general economic and international trade conditions and regulatory developments, not within the Company's control. The factors discussed herein could cause actual results and developments to be materially different from those expressed in or implied by such statements. A further list and description of the Company's risks, uncertainties and other factors can be found in the Company's most recent Annual Report on Form 10-K and the Company's subsequent filings with the Securities and Exchange Commission. Copies of these filings are available online at www.sec.gov or www.iovance.com. The forward-looking statements are made only as of the date of this press release and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

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