

Charles River Laboratories Announces Updates to Oncology Business

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WILMINGTON, Mass.--(BUSINESS WIRE)--May 16, 2017-- <u>Charles River Laboratories International, Inc.</u> (NYSE: CRL) recently announced updates to its expanding oncology discovery business, including significant additions to its online Tumor Model Compendium. The Compendium provides oncology researchers with a resource to identify and locate targeted, suitable patient-derived xenografts (PDXs) based on specific histology and molecular properties, and now includes additional molecular characteristics for syngeneic models.

"The use of a human tumor graft in a humanized model represents the future of immuno-oncology research," said Birgit Girshick, Corporate Senior Vice President, Global Discovery, at Charles River. "A model that more closely mirrors human immune systems allows researchers to conduct groundbreaking studies more efficiently and effectively, with the goal of developing more translational therapies. Utilizing the Tumor Model Compendium, oncology researchers can identify the exact tumor model and target for their research, getting them that much closer to that goal."

Charles River has more than 450 fully characterized proprietary PDXs in its portfolio, which represents all major tumor histotypes, and provides extensive background and characterization for oncology research. The most recent Compendium update expands the existing tumor model collection to include:

- Whole-exome mutations determined by Next-Generation Sequencing
- Gene copy number variations determined by using Affymetrix Genome-Wide Human SNP Array 6.0
- Gene expression determined by using Affymetrix Human Genome U133 Plus 2.0 Array

Recognizing the importance of selecting the appropriate tumor model for *in vivo* and *in vitro* oncology, Charles River <u>partnered with OcellO</u> to further expand their capabilities with PDX models. Through their agreement, OcellO utilizes human tumor material from Charles River PDX models and applies it in their <u>3D cell culture</u> drug screening platform. This high-throughput platform enables the growth of micro-tumors in a natural extracellular matrix environment and uses automated 3D imaging to analyze the effects of small molecules and antibodies on tumor development.

"The extended range of tumor subtypes and high level of annotation of Charles River's PDX Compendium enables the selection of the optimum tumor models with the most appropriate mutational profile for *in vivo* studies," said Leo Price, CEO and founder of OcellO. "The use of the same PDX tumor cells in OcellO's *in vitro* 3D culture platform enables pre-screening of tumor models with test compounds in a highly translational high-throughput platform."

In addition to utilizing the Compendium in integrated client relationships, recent tumor model updates have also enhanced scientific presentations. At the 2017 AACR Annual Meeting, a meeting which highlights the advances in cancer science and medicine from institutions all over the world, Charles River presented three posters highlighting the enhancement of certain models for oncology drug discovery:

- Whole-exome somatic mutation analysis of mouse cancer models and implications for preclinical immunomodulatory drug development (available here.)
- Humanized single mouse trial: A preclinical platform feasible for immune-oncology drug screening and translational biomarker development (available here.)
- In vitro PDX models: 3D cultured patient-derived tumors for compound evaluation (in conjunction with OcellO, available here.)

Charles River's extensive portfolio of oncology products and services, including studies in human xenograft, syngeneic, humanized immunotherapy research models, flow cytometry, and IVIS[®] imaging services, was strengthened by the acquisition of <u>Oncotest GmbH</u>. Now known as Charles River Discovery Research Services Germany GmbH, the company is a Freiburg, Germany-based organization with a specialization in PDX models with more than 25 years of experience. To address the increasing importance of immuno-oncology, in <u>April 2017</u> Charles River announced the availability of its triple-immunodeficient mouse model, known as the NCG model.

To learn more about Charles River's oncology research capabilities, visit <u>www.criver.com</u>.

About Charles River

Charles River provides essential products and services to help pharmaceutical and biotechnology companies, government agencies and leading academic institutions around the globe accelerate their research and drug development efforts. Our dedicated employees are focused on providing clients with exactly what they need to improve and expedite the discovery, early-stage development and safe manufacture of new therapies for the patients who need them. To learn more about our unique portfolio and breadth of services, visit <u>www.criver.com</u>.

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Source: Charles River Laboratories International, Inc.

Charles River Laboratories International, Inc. Investor Contact: Susan E. Hardy, 781-222-6190 Corporate Vice President, Investor Relations susan.hardy@crl.com or

Media Contact: Amy Cianciaruso, 781-222-6168 Corporate Vice President, Public Relations amy.cianciaruso@crl.com