

## Bio-Techne Launches MimEX™ GI, an Accessible 3-D Cell Culturing Platform for the Gastrointestinal Tract

MINNEAPOLIS, March 14, 2018 /PRNewswire/ -- Bio-Techne has released MimEX™ GI, a new product line for generating 3-dimensional (3-D) gastrointestinal tissue on a 2-D surface.

3-D cell culture and organoid models of the gastrointestinal epithelium are quickly being adopted for toxicology, drug discovery, and disease modeling. These more complex models provide a tremendous benefit over cell line- and primary cell-based methods by mimicking native intestinal cytoarchitecture and recapitulating physiological attributes of the tissue. Researchers using current 3-D models, such as gastrointestinal organoids, experience difficulties with model variability, tissue viability, and experimental accessibility. Overcoming these obstacles is paramount for the logistical incorporation of 3-D tissues into high throughput toxicity and disease modeling workflows.

The MimEX™ GI platform is an **innovative human tissue model system** that utilizes the unique characteristics of adult ground-state stem cells **to generate 3-D gastrointestinal epithelial tissue on a 2-D surface**. This 3-D culture system was developed from <u>published works</u> by Drs. Wa Xian and Frank McKeon and provides unparalleled accessibility toin *vitro*-generated gastrointestinal tissue. 3-D tissue generated using the MimEX™ GI system is an ideal tool for basic developmental biology studies as well as for studying diseases and disorders of the gastrointestinal tract, such as gastric cancer, celiac disease, and Crohn's disease.

The MimEX™ GI system consists of specialized media and reagents that allow for the expansion and differentiation of ground-state adult stem cell populations from the gastrointestinal tract, while maintaining their regional specificity. 3-D tissue generated using the MimEX™ GI system displays native organ cytoarchitecture, including crypt-like structures, gut epithelial polarity, goblet cells, paneth cells, and endocrine cells. The MimEX™ GI platform makes *in vivo*-like 3-D gastrointestinal tissue broadly accessible to both academic and industrial laboratories, including a licensing program for its use in commercial applications.

Dave Eansor, Senior Vice President of the Biotech Division of Bio-Techne, commented, "We are excited to release the MimEX™ GI system as the first tissue available for our new 3-D cell culture platform, MimEX™ Tissue Model Systems. Our partnership with Multiclonal Therapeutics to develop, market, and distribute their novel technology has yielded a versatile and accessible tissue culture system that will be a critical tool for the advancement of disease modeling, drug screening, biomarker discovery, and novel therapeutic discovery."

**Bio-Techne Corporation** (NASDAQ: TECH) is a leading developer and manufacturer of high quality purified proteins—notably cytokines and growth factors, antibodies, immunoassays, as well as biologically active small molecule compounds and ACD's *in situ* 

hybridization detection products---which are sold to biomedical researchers and clinical research laboratories; these operations constitute the core Biotech Division, headquartered in Minneapolis, Minnesota. The Protein Platform Division manufactures innovative protein analysis tools under the ProteinSimple brand name that greatly automate western blotting and immunoassay practices. The Diagnostics Division manufactures FDA-regulated controls, calibrators, blood gas and clinical chemistry controls for OEM customer and clinical customers. Bio-Techne products are integral components of scientific investigations into biological processes and the nature and progress of specific diseases. They aid in drug discovery efforts and provide the means for accurate clinical tests and diagnoses. With thousands of products in its portfolio, Bio-Techne generated approximately \$563 million in net sales in fiscal 2017 and has approximately 1,800 employees worldwide. For more information on Bio-Techne and its brands, please visit <a href="https://www.bio-techne.com">www.bio-techne.com</a>.

Multiclonal Therapeutics was formed by the research team of Frank McKeon, PhD, and Wa Xian, PhD. The company's technologies focus on isolating, culturing and manipulating adult stem cells with the goal of generating useful tools to model major diseases as well as diagnostics. Multiclonal Therapeutics retained the rights under its intellectual property rights, for itself and its licensees, to use the proprietary culture systems and reagents for diagnostic and therapeutic purposes, such as relating to drug discovery and cell therapy manufacturing and has created a streamlined licensing program for commercial uses of MimEX™ Tissue Model Systems to work along aside Bio-Techne's research reagent offerings. For information relating to diagnostic and therapeutic licenses, contact licensing@multiclonaltherapeutics.com.

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