

Bio-Techne's RNAscope® Technology Enabling Robust Gene Expression and Biomarker Analysis Advances Wide-ranging Research with over 1000 Publications

Surge in RNAscope and BaseScope Assay publications now includes pharma, biotech and new research areas - and use as a core assay

MINNEAPOLIS, Nov. 28, 2017 /PRNewswire/ -- [Advanced Cell Diagnostics](#) (ACD), a Bio-Techne brand, is celebrating a milestone in the adoption of its RNAscope® *in situ* hybridization (ISH) technology. Reaching 1,000 publications and increasing to an average of more than one publication per day, papers using RNAscope now feature regularly in top tier journals. This is clear evidence that scientists are applying RNAscope ISH as a robust and sensitive assay that yields the high-quality data necessary for cutting-edge studies.

Three-plex detection of glutaminergic neurons, Vglut1 (Red), Vglut2 (Green), and GABAergic neurons Vgat (white) expression in the FFPE mouse brain with RNAscope® Multiplex Fluorescent Assay v2. Nuclei were labelled with DAPI (Blue)

The surge—400 publications featuring RNAscope in 2017 alone—includes a notable increase in pharmaceutical and biotechnology industries. Authors of recent publications include researchers at Bayer, Merck, and Eli Lilly. The increase in these industries highlights awareness of the robustness, sensitivity, specificity, and high success rate of the RNAscope assay.

Reflecting confidence in the assay, ACD's ISH technology is also becoming a primary assay used in research, rather than a secondary confirmatory assay. This is demonstrated by a recent *Nature* publication where Sigal *et al.* (Sigal, M. *et al.* Stromal R-spondin orchestrates gastric epithelial stem cells and gland homeostasis. *Nature* 2017, 548, 451–455.) used more than 40 RNAscope probes to elucidate the mechanism by which epithelial cells regulate and shape their environment.

In addition to the growing number of industrial publications in immuno-oncology, cancer, gene therapy, and many orphan diseases development programs, RNAscope is also being used in new areas of academic research. These fields include neuroscience, metabolic diseases, and virology and infectious disease research, which have recently seen fast growth alongside RNAscope's established presence in oncology and stem cell research.

Dr. Yuling Luo, President and General Manager of ACD, commented: "We're very proud of

having our customers achieve the 1000-paper milestone so rapidly, with over 900 papers in the last 3 years alone. The fact that RNAscope adoption is expanding into new industries and areas of research, as well as becoming a core assay in biopharmaceutical research and diagnostic development, demonstrates the robustness, sensitivity, and reliability of the assay. It also shows that RNAscope is playing a significant role in advancing numerous research areas and on its way to being a gold standard method in labs."

RNAscope ISH enables easy, visual localization of gene expression at single-molecule sensitivity, both in individual cells and within the context of complex tissues. ACD's library of catalogued probes targeting over 15,000 genes is continuously expanding and new probes targeting any sequenced gene from any species can be ready in just two weeks. RNAscope technology is also being applied in diagnostic assays.

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 Biotechnology Division, headquartered in Minneapolis, Minnesota. The Protein Platforms 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 and other reagents 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 www.bio-techne.com.

Forward-Looking Statements

Our press releases may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act. Such statements involve risks and uncertainties that may affect the actual results of operations. Forward-looking statements in this press release include statements regarding our belief about the market applications and acceptance of products sold under our recently acquired Advanced Cell Diagnostics brand, and our ability to derive advantages from this acquisition. The following important factors, among others, have affected and, in the future could affect, the our actual results: our management of investments in and acquisitions of new businesses into Bio-Techne, the effect of new branding and marketing initiatives, the introduction and acceptance of new products, the levels and particular directions of research and product development by our customers, general economic conditions, the impact of currency exchange rate fluctuations, and the costs and results of our research and product development efforts and those of companies in which we have invested or with which we have formed strategic relationships. For additional information concerning such factors, see the section titled "Risk Factors" in the Company's annual report on Form 10-K and quarterly reports on Form 10-Q as filed with the Securities and Exchange Commission. We undertake no obligation to update or revise any forward-looking statements we make in our press releases due to new information or future events. Investors are cautioned not to place undue emphasis on these statements.

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