

**NEWS RELEASE - FOR IMMEDIATE RELEASE****Date: 14.01.2016****-Copy Starts-****NEW Paper Validates Automated versus Manual Colony Counting  
Indicates that ProtoCOL 3 system can improve productivity without  
compromising accuracy**

**Cambridge, UK:** Synbiosis, a long-established, expert manufacturer of automated microbiological systems, is delighted to announce a new paper entitled, 'Evaluation of heterotrophic plate and chromogenic agar colony counting in water quality laboratories' has been published in the peer-reviewed journal, Methods X. The paper details how scientists at the Australian Water Quality Centre (AWQC) have for the first time independently validated that results from the ProtoCOL 3 automated colony counter are as accurate as manual colony counting.

The article describes how microbiologists at AWQC, a leading NATA (National Association of Testing Authorities) accredited water testing laboratory in Adelaide, Australia cultured microorganisms isolated from one hundred water samples on MI agar chromogenic agar and yeast extract agar as an HPC (Heterotrophic Plate Count). The plates were then counted manually and with a ProtoCOL 3 automated colony counter to detect and enumerate total coliforms, *E. coli* and heterotrophic microorganisms such as bacteria, yeast and moulds.

In total around 1500 counts were performed with the ProtoCOL 3 and by manual counting. The results showed no significant differences in the counting methods for measurement of water quality compliance for either the chromogenic or yeast extract agar plates. Therefore, the AWQC microbiologists concluded in the paper that the sensitivity and specificity of automated counting was comparable to manual counting.

The accuracy of the ProtoCOL 3 in this study is due to the system's sensitive camera and unique three colour method of imaging, as well as the ProtoCOL 3's powerful software for analysing the data. It is these features which led the paper's authors to report that using this automated colony counter could help provide a standard and consistent counting methodology with less operator error; eliminate manual entry of data into a LIMS; improve labour and time efficiency with reduced cost and allow reporting of results to customers more rapidly.

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## .....NEW Paper Validates/2

To request free access to this informative new paper, scientists should click the link:

<http://www.sciencedirect.com/science/article/pii/S2215016115000515> or

<http://www.synbiosis.com/chromogenic-agar-colony-counting-in-water-quality-laboratories/>

Kate George, Divisional Manager at Synbiosis, commented: "It can take at least five times longer to manually count a pour plate when compared to using our Protocol 3. This is why we're very excited about this new paper because it is the first time that automated colony counting has been validated to be as accurate as manual colony counting by a prestigious, independent water testing facility."

Kate concluded: "Having good statistical evidence demonstrating both methods produce comparable results indicates that a ProtoCOL 3 could significantly increase productivity without compromising on data quality, making the ProtoCOL 3 automated colony counter an excellent choice for any water testing organisations requiring fast, accurate microbiological analysis of water samples."

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### **Note to Editors**

### **About Synbiosis**

Synbiosis is a world-leading supplier of integrated imaging solutions for automatic counting and analysis of microbial colonies and zone measurement. The ProtoCOL, Protos and aCOLyte systems from Synbiosis are installed in food, pharmaceutical, environmental and research microbiology laboratories world-wide. Synbiosis uses established distribution channels to market its products internationally.

Synbiosis, founded in 1998 is a division of the Synoptics Group of the AIM quoted Scientific Digital Imaging Company based in Cambridge, UK. The Group's other divisions, Syncroscopy and Syngene, specialise in digital imaging solutions for microscopy and molecular biology applications respectively. Synoptics, which is celebrating its 30<sup>th</sup> anniversary of being in business in 2015, currently employs 40 people in its UK and subsidiary operation in Frederick, USA.

