

NEWS RELEASE - For Immediate Release

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**Automated Colony Counter Generates Accurate OPKA Assay Results  
Helping to Speed up Clinical Studies of Pneumococcal Vaccines**

**Cambridge, UK:** Synbiosis, a world-leading manufacturer of automated microbiological systems, is pleased to announce that its ProtoCOL automated colony counter is being successfully used at prestigious UK research institute, The Institute of Child Health (ICH) to help rapidly assess the effectiveness of novel vaccines against bacterial pneumonia.

Scientists in the Immunobiology Unit at ICH are running clinical trials in which children are vaccinated with new types of pneumococcal vaccines. Blood samples from the children are subjected to an *in vitro* opsonophagocytic-killing assay (OPKA) and the surviving *Streptococcus pneumoniae* are plated onto Todd-Hewitt agar plates with yeast extract and an agar overlay containing antibiotics and a dye, 2, 3, 5-triphenyl tetrazolium chloride. The resulting red bacterial colonies are counted using a customised ProtoCOL with a high resolution camera, to rapidly determine the effectiveness of each vaccine.

Lindsey Ashton, Laboratory Manager of the Immunobiology Unit at ICH explained: "The ProtoCOL is recognised by the UK's National Institute of Biological Standards and The University of Alabama, Birmingham, USA (the originators of the modified OPKA assay) as being an efficient tool for automating bacterial counts from this assay. So to maintain consistency, which is important in clinical trials, we installed a ProtoCOL and have been using it daily for a year now."

"There are seven serotypes contained in Prevenar, currently the only licensed pneumococcal conjugate vaccine. For a single bleed to be tested for all seven serotypes this would equate to roughly 11,200 colonies. Each subject would have a series of bleeds throughout the trial. On a daily basis, we assess 20 plates of approximately 45,000 thousand colonies (one serotype only), which would take days to do manually. With ProtoCOL, its performance is so impressive, the system can easily distinguish between close colonies to accurately count vast numbers in minutes, so we have our results the same day the colonies appear," added Ashton.

Synbiosis is a division of the Synoptics Group. Registered in England. No 1874861

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Martin Smith at Synbiosis stated: "With the increase in antibiotic resistance of many bacteria, the production of new vaccines against life threatening bacterial diseases is an area of critical importance where automated colony counting could help generate clinical data more rapidly. However, accurately enumerating colonies from an OPKA assay is a task very few automated systems can perform successfully, so we are delighted that well-respected research institutes such as the ICH have shown that our colony counter can rise to the challenge and could mean ProtoCOL becomes the international gold standard for this application."

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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 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 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 currently employs 50 people in its UK and US subsidiary operation.

**About the Institute of Child Health**

Established in 1945, the Institute of Child Health (ICH) aims to define the scientific, epidemiological and clinical basis of childhood diseases. In partnership with Great Ormond Street Hospital and as part of University College London, the ICH is the leading British academic research institution for child health.

The ICH, which receives more than £20 million per annum in peer-reviewed grant awards has over 470 staff and supports 46 professorships. The Institute also has 110 Phil/PhD students and 22 Doctors of Medicine/Master of Surgery studying there.