

Intercell's results on a novel *pneumococcal* protein-based vaccine published in the Journal of Experimental Medicine

- » Intercell (ICLL) published pre-clinical data on its *pneumococcal vaccine* program in the renowned Journal of Experimental Medicine
- » The article reveals the *Pneumococcal ANTIGENome* determined by Intercell's proprietary AIP® technology
- » The authors describe the selection process to retrieve highly conserved, novel *pneumococcal* protein antigens that are part of a new vaccine soon to enter clinical testing

Vienna (Austria), January 8, 2008 – Intercell (VSE: ICLL) is pleased to announce the publication of a scientific article about its research regarding *pneumococcal* vaccines by the internationally-renowned "Journal of Experimental Medicine". The "Journal of Experimental Medicine" (www.jem.org) is one of the most selective and renowned biomedical journals publishing important new advances in research areas that include immunology and infectious diseases among others. The authors describe the selection process, which involved *in-vitro* assays and animal protection studies, to retrieve highly conserved novel *pneumococcal* protein antigens that are part of a new vaccine soon to enter clinical testing.

Streptococcus pneumoniae (*Pneumococcus*) is a wide-spread human pathogen which is responsible for more than 1.5 million deaths worldwide, killing more people in the US and Europe than any other vaccine preventable disease. Besides life-threatening invasive infections (meningitis, bacteremia, pneumonia), it also causes millions of cases of otitis media in children.

In the article published by Giefing et al in the Journal of Experimental Medicine (January 2, 2008), the corresponding author Eszter Nagy, Vice President of Pre-clinical Research & Development at Intercell, and Intercell's research team report the identification of novel vaccine candidate *Pneumococcus* antigens. The two lead candidates forming the basis of Intercell's subunit *pneumococcal vaccine* were found to be exceptionally conserved among clinical isolates (>99.5% identity), cross-protective against different serotypes in lethal sepsis and pneumonia models, immunogenic in both elderly and young children, and that they play important non-redundant roles in bacterial multiplication. In this article, the authors report for the first time opsonophagocytic killing activity for antibodies induced by proteinaceous *pneumococcal antigens* that is a promising *in-vitro* assay for potential surrogate markers.

Due to high medical need, great efforts are being made to develop effective vaccines for the prevention of *pneumococcal* diseases in both industrialized and developing countries. Although capsular polysaccharides are proven to be highly effective vaccine antigens, none of the current capsular polysaccharide-based vaccines can address the needs of both the elderly and children in all parts of the world, as the existence of more than 90 different serotypes hinders the development of full coverage vaccines. Hence, there is an urgent need for the development of novel vaccines containing protective antigens that are present in all serotypes and can be easily produced at lower cost.



"This publication demonstrates the broad applicability and success of our Antigen Identification Program (AIP®) as well as the appreciation of the vaccine research community. Based on the data presented in this article, we are developing an innovative, novel vaccine that will address the needs of a much-awaited, affordable and broad-coverage pediatric vaccine in developing countries. The development of this vaccine is supported by PATH and therefore also the Bill & Melinda Gates Foundation. Furthermore, we are also working on an improved vaccine for the elderly", stated Alexander von Gabain, Chief Scientific Officer of Intercell AG.

Intercell's AIP® technology has already resulted in a novel sub-unit vaccine candidate against *Staphylococcus aureus*, currently in Phase-II testing by partner Merck & Co., Inc, USA. According to Intercell's plans, the *pneumococcal vaccine* described in the recent article will also enter Phase I clinical testing in 2008.

About Intercell's AIP® Technology

ICLL's Antigen Identification Program (AIP®) identifies novel antigens from a variety of pathogens. Intercell's team focuses on those antigens that are believed to induce the strongest response from the human immune system, thus providing a viable basis for the potential development of novel and more powerful vaccines and antibody treatments. Through AIP®, a large number of novel antigens related to a wide variety of infectious diseases have been successfully identified. In addition, certain product candidates are currently partnered with sanofi pasteur and Merck & Co., Inc., while others based on development projects are planned to be developed in-house or partnered with third parties.

About Intercell AG:

Intercell AG is a growing biotechnology company which focuses on the design and development of novel vaccines for the prevention and treatment of infectious diseases with substantial unmet medical need. The Company develops antigens and adjuvants which are derived from its proprietary technology platforms, and has in-house GMP manufacturing capabilities. Based on these technologies, Intercell has strategic partnerships with a number of global pharmaceutical companies, including Novartis, Merck & Co., Inc., Wyeth, sanofi pasteur, Kirin and the Statens Serum Institut. The Company's leading product, a prophylactic vaccine against Japanese Encephalitis, successfully concluded pivotal Phase III clinical trials in 2006. The regulatory process toward a Biologics License Application (BLA) to the U.S. Food and Drug Administration (FDA) has been initiated. The broad development pipeline includes a *Pseudomonas* vaccine in Phase II, a therapeutic vaccine for Hepatitis C in Phase II, partnered vaccines for Tuberculosis (Phase I) and *Staphylococcus aureus* (Phase II), and five products focused on infectious diseases in preclinical development.

Intercell is listed on the Vienna stock exchange under the symbol "ICLL".

For more information, please visit: www.intercell.com



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