



## **CRUCCELL AND VAXIN TO JOINTLY DEVELOP NEW TYPE OF VACCINES WHICH MAKE INJECTIONS OBSOLETE**

**Leiden (The Netherlands) and Birmingham (Ala.), June 28, 2001-** Crucell N.V. (NASDAQ: CRXL, Euronext Amsterdam: CRXL) and Vaxin, Inc. (a Birmingham, Ala.-based company) today announced that they will jointly develop new types of vaccines that will be suitable to be administered to patients in a non-invasive (needle-less, injection-less) way. The combination of the two technologies will be the starting point for a new generation of vaccines.

The two companies will combine Crucell's PER.C6™ cell line and related vaccination technology with Vaxin's unique skin delivery system for vaccines, known as EasyVax™. This delivery system enables the development of new anti-viral vaccines that can be administered non-invasively to the surface of the skin using a patch. This vaccination system eliminates pain and potential contamination created using a needle-based system.

Under the terms of this joint development agreement, Crucell and Vaxin will collaborate on developing two anti-viral vaccines and will share costs and profits. No further financial details were disclosed. Research will be performed in Birmingham, Ala., and in Leiden, The Netherlands. One of the diseases targeted for vaccination development is rabies, which kills 60,000 to 80,000 people in Asia each year. Crucell will select a second vaccine for development.

To develop the rabies vaccine, parts of the DNA of the rabies virus will be inserted into Crucell's especially selected vector (a gene delivery system based on common cold adenoviruses) for delivery of these genes into specific skin cells. The specific adenoviral vectors will be produced in Crucell's PER.C6™ cell line. Vaxin's EasyVax™ technology will be applied to administer the adenoviral vectors onto the surface of the skin by using a patch. The vectors containing the DNA of the virus will penetrate skin cells, causing a protective immune response by the body against rabies. The result is the formation of a specific defense reaction against the virus. This immunization will provide the patient with sufficient protection against rabies in case of a bite or exposure to a rabid animal.

"This collaboration is an excellent opportunity for Crucell to develop a new generation of viral vaccines with Vaxin's novel method of administration," comments Dinko Valerio, president and chief executive officer of Crucell N.V. "This innovative way of vaccination will broaden Crucell's market perspectives.

"Crucell's novel human viral vectors and its proprietary human cell line will greatly enhance the joint effort. Vaxin's discovery that vectored vaccines impart immunity when applied to the skin



will make vaccination a painless process,” says Kent Van Kampen, president of Vaxin, Inc.

### **About Crucell**

Crucell, a leading biotechnology company, develops biopharmaceuticals that are in tune with the human body by making them ‘as human as possible’ (huMADE™). Crucell’s focus is on human antibody-based therapeutics for treatment of cancer, and inflammatory diseases and on human vaccines for the prevention and treatment of influenza and other infectious diseases. Furthermore, Crucell discovers unique drug targets on diseased cells.

Crucell’s two broadly applicable human technology platforms form the basis for this system. The first, PER.C6™, is a production cell line for biopharmaceuticals based on a healthy immortalized human cell, on which a wide range of biopharmaceuticals can be manufactured, such as vaccines, antibodies, therapeutic proteins and gene therapy products (adenoviral vectors). The second technology, MAbstract™, is a set of tools based on phage antibody-display libraries and proprietary subtraction and selection technology to discover novel drug targets and develop human monoclonal antibodies as therapeutics for a variety of diseases.

Crucell makes its technologies available under exclusive or non-exclusive license agreements and has currently signed 17 agreements with major pharmaceutical and biotechnology companies for its PER.C6™ technology.

Crucell currently employs approximately 130 people in its facilities in Leiden and Utrecht.

### **About Vaxin**

Vaxin, Inc. is a highly innovative vaccine delivery company with a patented non-invasive (injection-less, needle-less) technology for applying vaccines onto the surface of the skin. Founded in 1997, Vaxin has developed a system to vaccinate by topical application of vaccines to the skin. The technology was developed the School of Medicine at the University of Alabama at Birmingham by scientific founders Dr. De-chu Christopher Tang, Ph.D. and Associates. The core U.S. Patent, allowed in June, 2000, claims "Topical application of plasmid DNA or recombinant adenovirus for the purpose of eliciting a protective immune response."

Vaxin’s technology has been used to protect animals against such diseases as influenza, tetanus and rabies. It has also been used in mice to both treat and protect against breast cancer. The company has filed an IND with the United States’ FDA for permission to begin testing one of its vaccines in clinical trials in people.

Vaxin has been awarded multiple federal grants for the research and development of the vectored vaccine program. It received early stage equity financing from the Economic Development Partnership of Alabama, Emerging Technology Partners, and Paradigm Venture Partners I.



Vaxin is currently seeking a B Round in financing in the range of \$5 to \$10 million.

**This press release contains forward-looking statements that involve inherent risks and uncertainties. We have identified certain important factors that may cause actual results to differ materially from those contained in such forward-looking statements. See our Registration Statement (CruCell), as filed on Form F-1 with the U.S. Securities and Exchange Commission on October 26, 2000, (the "Registration Statement") and the section of the Registration Statement entitled "Risk Factors."**

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