

# Press Release

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## **DSM and Crucell announce record achievement in PER.C6<sup>®</sup> technology**

**DSM Biologics and Crucell N.V. (Euronext, NASDAQ: CRXL; Swiss Exchange: CRX) today announce another breakthrough in the production of IgG antibodies using PER.C6<sup>®</sup> technology. By employing the PER.C6<sup>®</sup> human cell line and proprietary XD<sup>™</sup> technology, a record yield of over 27 grams per liter has been achieved. In March 2008 a yield of 15 grams per liter was reported.**

This milestone is the new manufacturing paradigm for mammalian cell culture to produce protein products effectively, where the industry has struggled to date with low yields and unstable platforms. This record surpasses all other production systems including those previously set by PER.C6<sup>®</sup> technology itself.

The use of PER.C6<sup>®</sup> technology will clearly impact cost of goods for marketed products and reduce the risk of premature high capital expenditures. Higher yields mean smaller footprints for facilities, reduced risk in drug development, higher utilization of facilities and better chance of success. Drugs that would otherwise not be brought to market because they are too expensive to produce, may now find a vehicle for commercialization. More so, the glycosylation of monoclonal antibodies and proteins, produced using PER.C6<sup>®</sup> technology, is fully human.

Scientists at the PERCIVIA PER.C6<sup>®</sup> development center, a joint venture between DSM and Crucell, have shown that they can reproducibly manufacture a record amount of product with over 95% viability and unchanged product quality. This accomplishment was achieved using standard bioreactor equipment and readily available cell culture medium. The result of this effort provides the entire biotechnology industry with a reliable production platform to economically manufacture large amounts of therapeutic proteins with ease.

Marco Cacciuttolo, CEO and President of PERCIVIA, says: "This new achievement surpasses all other reported titer levels to date with any mammalian system and clearly demonstrates the robustness and power of the PER.C6<sup>®</sup> platform. We are particularly enthused with the user-friendliness of the platform and pleased to be able to provide this to our licensees. We strive to revolutionize the pharmaceutical industry in protein production."

Marcel Lubben, Vice President, Marketing, Sales and Business Development at DSM Biologics, adds: "We are extremely pleased with this achievement. This milestone coincides with our commitment to provide the most inherently robust manufacturing platform and ensure the utmost product quality for protein manufacturing. Our mission of only the best quality for manufacturing is echoed by the PER.C6<sup>®</sup> technology platform."

"The PER.C6<sup>®</sup> Manufacturing Platform once again demonstrates itself as the most robust commercial system available today combining ease of use, and plug and play essentials, for any standard equipment, with little optimization requirements" states Martina Molsbergen,

VP Business Development PER.C6<sup>®</sup> Licensing, Crucell. “Companies are rapidly embracing the PER.C6<sup>®</sup> technology as the true commercially viable tool for protein manufacturing. More so, the COGS savings to be realized for companies employing the PER.C6<sup>®</sup> platform are compelling enough to offset risks in drug development.”

## **About PER.C6<sup>®</sup> Technology**

Crucell's PER.C6<sup>®</sup> technology platform has been developed for the large-scale manufacture of biopharmaceutical products such as recombinant proteins including monoclonal antibodies. Compared to conventional production technologies, the strengths of PER.C6<sup>®</sup> technology lie in its excellent safety profile, scalability and productivity under serum-free culture conditions.

## **About XD<sup>™</sup> Technology**

DSM's XD<sup>™</sup> technology has been developed as a proprietary system to drive yield improvements in mammalian systems. “XD” stands for extreme density, as the process is able to push the cell density within the bioreactor to maximum productivity.

## **About PERCIVIA**

PERCIVIA PER.C6<sup>®</sup> Development Center, a joint venture between DSM and Crucell, develops the PER.C6<sup>®</sup> human cell line for the expression of recombinant proteins. PERCIVIA provides solutions for protein production to licensees of PER.C6<sup>®</sup> technology. PERCIVIA houses dedicated staff working in state-of-the-art laboratories with sufficient space to afford PER.C6<sup>®</sup> users a hands-on experience of our technology.

## **About Crucell**

Crucell N.V. (Euronext, NASDAQ: CRXL; Swiss Exchange: CRX) is a global biopharma company focused on research, development, production and marketing of vaccines, proteins and antibodies that prevent and treat primarily infectious diseases. Its vaccines are sold in public and private markets worldwide. Crucell's core portfolio includes a vaccine against hepatitis B, a fully-liquid vaccine against five important childhood diseases and a virosome-adjuvanted vaccine against influenza. Crucell also markets travel vaccines, such as the only oral anti-typhoid vaccine, an oral cholera vaccine and the only aluminum-free hepatitis A vaccine on the market. The Company has a broad development pipeline, with several product candidates based on its unique PER.C6<sup>®</sup> production technology. The Company licenses its PER.C6<sup>®</sup> technology and other technologies to the biopharmaceutical industry. Important partners and licensees include DSM Biologics, sanofi-aventis, Novartis, Wyeth and Merck & Co. Crucell is headquartered in Leiden, the Netherlands, with subsidiaries in Switzerland, Spain, Italy, Sweden, Korea and the US. The Company employs over a 1000 people. For more information, please visit [www.crucell.com](http://www.crucell.com).

## **About DSM Biologics**

DSM Biologics, a business unit of DSM Pharmaceutical Products, is a global provider of manufacturing technology & services to the biopharmaceutical industry. In addition to offering world-class biopharmaceutical manufacturing services, DSM Biologics has co-exclusive rights, along with Dutch biotech company Crucell N.V., to license the high-producing PER.C6<sup>®</sup> human cell line as a production platform for recombinant proteins and monoclonal antibodies. The combination of the PER.C6<sup>®</sup> human cell line and DSM's manufacturing services provides companies with a turn-key biologic manufacturing solution reducing cost, risk and time to market.

## **DSM – the Life Sciences and Materials Sciences Company**

Royal DSM N.V. creates innovative products and services in Life Sciences and Materials Sciences that contribute to the quality of life. DSM's products and services are used globally in a wide range of markets and applications, supporting a healthier, more sustainable and more enjoyable way of life. End markets include human and animal nutrition and health, personal care, pharmaceuticals, automotive, coatings and paint, electrics and electronics, life protection and housing. DSM has annual sales of almost EUR 8.8 billion and employs some 23,000 people worldwide. The company is headquartered in the Netherlands, with locations on five continents. DSM is listed on Euronext Amsterdam. More information: [www.dsm.com](http://www.dsm.com).

### **Forward-looking statements**

*This press release contains forward-looking statements that involve inherent risks and uncertainties. These statements are based on current expectations, estimates and projections of the management of DSM and Crucell and information currently available to both companies. The statements involve certain risks and uncertainties that are difficult to predict and therefore DSM and Crucell do not guarantee that their expectations will be realized. Furthermore, DSM and Crucell have no obligation to update the statements contained in this press release. Crucell N.V. has identified certain important factors that may cause actual results to differ materially from those contained in such forward-looking statements. For information relating to these factors please refer to the Form 20-F, as filed by Crucell N.V. with the U.S. Securities and Exchange Commission on May 7, 2008, and in particular the section entitled "Risk Factors". Crucell N.V. prepares its financial statements under International Financial Reporting Standards (IFRS). The English language version of the press release is leading.*

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