Tampere and Stockholm, 31st January 2012

**BioNavis Oy and Episentec AB develop Selectively Amplified Surface Plasmon Resonance (SAMP-SPR)**

*The Best of Both Worlds*

Selectively Amplified Surface Plasmon Resonance (SAMP-SPR) combines the best of non-labeled technology and the best of labeled technology to enable real-time measurements of kinetics with attomolar sensitivity. So far, label-free technologies, such as SPR, calorimetry or QCM, are superior in real-time measurements of molecular kinetics, but are limited in sensitivity and specificity of the technology. On the other hand labeled technologies, such as those using fluorescent, chemical, or radioactive labels, have superior sensitivity and specificity, but are unable to measure kinetics of molecular interactions in real-time.

*SPR as the SAMP-SPR Technology Platform*

SPR technology has been used for more than 20 years in the drug discovery process, so it is a natural choice as a technology platform. So far the instruments on the market have been based on a single wavelength, focused beam configuration. BioNavis is the first SPR manufacturer to enable measurements with multiple wavelengths in a true goniometric configuration. This is the enabling factor for the SAMP-SPR technology. Hence, the Multi-Parametric Surface Plasmon Resonance instruments, developed by BioNavis, together with the dye-labeling kits, developed by Episentec, form a research platform that is both highly competitive and unique.

*Feasibility Study with SAMP-SPR Confirms Superior Properties*

The feasibility studies with SAMP-SPR technology have shown 120x improvement in the signal-to-noise ratio, 50x enhancement per mass and reduction in bulk signal by 90%. The study performed on 25-mer oligonucleic acid probes bound to avidin-biotin modified gold surfaces has shown excellent specificity. The SAMP-SPR studies further continue towards application specific experiments on customer samples.

*SAMP-SPR for Better Drugs and Safer Food*

The SAMP-SPR technology can be used in a number of applications. Most notably, in the high-end, the SPR technology has already been used in the drug discovery process for more than 20 years. Moreover, BioNavis instruments with their unique optical configuration enable the use of SPR not only in life sciences, but also in material research, biosensor research and process quality control.

SPR technology is one of the hot technologies to be used in the future point-of-care devices. Such consumer mobile-phone-sized products would enable safety check of food, drinking water or air.

*BioNavis and Episentec Tighten Their Co-operation*

On 30th January 2012, BioNavis and Episentec signed an agreement for distribution of the Episentec products within the BioNavis worldwide distribution network.

BioNavis and Episentec have been collaborating together on SAMP-SPR technology already for more than a year. In the coming months, BioNavis and Episentec will continue their collaboration in joint studies of SAMP-SPR using application specific samples. These experiments should show the potential of the technology in environmental, food and safety applications.

*Company Background*

This revolutionary technology has been jointly developed by BioNavis, a Finnish-Japanese-Italian SPR instruments manufacturer and Episentec, a Swedish biotech company.

BioNavis ([www.bionavis.com](http://www.bionavis.com)) is a Finnish-Japanese-Italian private company founded in 2006. BioNavis manufactures SPR instruments with superior features and performance to be used in Life Science, Material Science and Biosensors research. The mission of BioNavis is to develop Surface Plasmon Resonance (SPR) technology beyond today’s understanding, to stay atop of the latest developments and to bring the best to the market. BioNavis products are available through a network of 30 distributors in more than 40 countries worldwide.

Episentec ([www.episentec.com](http://www.episentec.com)) is a Swedish company founded in 2010 by scientists with a comprehensive experience in the development and application of biosensors. The mission of Episentec is to provide users of optical biosensor systems (primarily SPR, Surface Plasmon Resonance, based systems) with novel reagents, accessories, and technologies that significantly improve the performance of the biosensors and widen their utility. Episentec is marketing the Episentec™ range of dyes and the EpiGrammer™ software for data evaluation.

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