



Press release

## **SARomics ProPHECY™ technology successfully used in the design of potent antimicrobial peptides**

Lund, September 1, 2008 – SARomics AB announced today that together with researchers at Lund University and Uppsala University they have successfully used their ProPHECY™ technology for the rational design of potent antimicrobial peptides.

The work that will be published in the scientific journal *Biochemistry* describes a novel approach comprising selective amino acid changes based on structural considerations in an amphipathic peptide template, a biological and *in silico* evaluation of the resulting peptides, followed by a global analysis of interdependence of biophysical parameters and antimicrobial as well as hemolytic activity (cell toxicity). By utilizing a low number of amino acid substitutions at strategic positions in the original peptide template, guided by the ProPHECY™ analysis, they were able to develop peptides, which, in contrast to the parent peptide, exerted a significant antimicrobial activity on the disease causing bacteria *Staphylococcus aureus*. The work provides for the first time, predictive tools not only for antimicrobial activity but also for eukaryotic cell toxicity, as well as insights into the mechanisms governing selectivity towards different bacteria.

The new findings will be presented September 2, 2008, in the latest issue of the journal *Biochemistry* (Pasupuleti et. al., *Rational Design of Antimicrobial C3a Analogues with Enhanced Effects against Staphylococci Using an Integrated Structure and Function-Based Approach*, *Biochemistry*, 47, 35, 9057-9070, 2008, <http://dx.doi.org/10.1021/bi800991e>).

### **About ProPHECY™**

SARomics AB's proprietary ProPHECY™ technology, allows the systematic optimization of biomolecular properties. The method is based upon the application of multivariate regression methods to correlate novel computed physicochemical descriptors with experimentally determined properties. This greatly reduces the effort, time and cost to optimize one or several targeted properties.

### **About SARomics AB**

SARomics specializes in finding and exploring structure-activity-relationships (SAR) in both small molecule-based and protein-based drug discovery projects.

SARomics has since 2005 provided R&D support in the area of *in silico* drug discovery to the pharmaceutical and biotechnology industries as a contract service provider. SARomics has developed a technology platform consisting of both proprietary methods and commercial software for protein modeling, computational chemistry, and quantitative protein sequence-activity modeling activities. SARomics is based in Lund, Sweden, and consists of a highly experienced team with key expertise in drug discovery and design.

For further general information please visit [www.saromics.com](http://www.saromics.com).

If you have any questions please contact Dr Björn Walse, CEO of SARomics AB, +46 46 191276.

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**Address:**

P. O. Box 724  
SE-220 07 Lund  
Sweden

**Delivery address:**

Scheelevägen 22  
SE-223 63 Lund  
Sweden

**Phone:**

+46 46 191276

**Fax:**

+46 46 191277

**Internet:**

[www.saromics.com](http://www.saromics.com)

**E-mail:**

[sales@saromics.com](mailto:sales@saromics.com)

**Organisation number:**

556665-1484

**VAT number:**

SE556665148401