PRESS RELEASE

Beactica scientists reveal novel strategies for discovery of drugs targeting ion channels involved in synaptic signalling

Uppsala, Sweden, 12 October 2010

Beactica, the Swedish fragment-based drug discovery company, today announced the publication of three key papers in leading scientific journals*. The papers describe important work towards the discovery of novel drugs targeting Cys-loop ion channel receptors, a significant family of drug targets involved in various neurological diseases, for example epilepsy.

Two of the publications outline the development of SPR biosensor-based assays suitable for screening and kinetic characterization of compounds interacting with Cys-loop ion channel receptors. In a third paper, the highly sensitive assays are shown to be suitable for fragment-based drug discovery. The high information content of the developed assays is expected to be powerful for the discovery of efficient inhibitors towards this class of drug targets.

Neural signalling involves activation of synaptic ion channels by released neurotransmitters. Scientific challenges in exploring ion channels as drug targets can be circumvented by using acetylcholine-binding protein, a surrogate protein from a fresh water mollusc which mimics the extracellular domain of Cys-loop receptors.

The research was performed in collaboration between Beactica and scientists at the Vrije Universiteit Amsterdam, the Netherlands, and Uppsala University, Sweden. It is part of NeuroCypres, a project funded through EU's 7th Framework Programme. For more information, please visit www.neurocypres.eu.

For additional information please contact Dr Per Källblad, Beactica CEO, +46 18 560880.

*** Publication references**

Retra *et al.*, Development of SPR biosensor assays for primary and secondary screening of AChBP ligands, *Analytical Biochemistry,* 2010, 407:58–64 (DOI:10.1016/j.ab.2010.06.021).

Geitmann *et al*., Interaction kinetic and structural dynamic analysis of ligand binding to acetylcholine-binding protein, *Biochemistry*, 2010, 49:8143–8154. DOI: 10.1021/bi1006354).

de Kloe *et al.*, Surface plasmon resonance biosensor-based fragment screening using acetylcholine binding protein identifies ligand efficiency hot spots (LE hot spots) by deconstruction of nicotinic acetylcholine receptor α7 ligands, *Journal of Medicinal Chemistry*, 2010, 53:7192–7201 (DOI: 10.1021/jm100834y).

About Beactica

Beactica AB is a specialist drug discovery company, utilising its proprietary methodologies to evaluate the biophysical interaction of molecules in order to generate novel therapeutics. The Company offers expertise and services in the area of SPR biosensor-based small molecule interaction analysis and partnerships for fragment-based lead generation using its proprietary Sprint™ platform. Founded in 2006 based on research carried out at Uppsala University, Beactica has established a robust reputation as the leader in SPR-based small molecule drug discovery. As well as providing services and building collaborations with external companies, Beactica is progressing its own drug discovery programmes. For more information, please visit www.beactica.com.