

BioBusiness Asia 2009

Company Name	GlycoGene, Inc.		
Presenter	Tadayoshi Kawasaki, Ph.D.	Title	CEO & President
Address	1-1-1 Umezono, Tsukuba, Ibaraki, 305-8568 Japan		
Website	http://www.glycogene.co.jp		
No. of employee	4	Year of foundation	1 st of December, 2005
Company Categories	<input type="checkbox"/> Novel Therapeutics <input type="checkbox"/> Genomics <input type="checkbox"/> Pharmaceuticals <input type="checkbox"/> R&D Service <input type="checkbox"/> Medical Devices <input type="checkbox"/> Other _____		
Paid-in Capital	35M JPY		
Company Stage	<input type="checkbox"/> Seed Start up <input type="checkbox"/> Expansion <input type="checkbox"/> Mezzanine		
Company Overview	<p>GlycoGene, Inc. is a start up company based on the technology and IP rights developed at the Research Center for Glycoscience at the Advanced Industrial Science and Technology (AIST), Japan. The AIST have developed a gene library of human glycosyltransferases and we can access them for research, and we have licensed some of the enzymes for our business purposes. By use of the enzymes we established the following business area;</p> <ol style="list-style-type: none"> 1. Oligosaccharide Synthesis of both N-glycans and O-glycans 2. Comprehensive Oligosaccharide Analysis 3. Glyco-engineering with glycosyltransferases 4. Screening of Biomarkers 5. Biopharmaceutical development <p>We are now planning to scale up of enzyme manufacturing and further development of the glycosyltransferase manufacturing processes. Also we are applying the technology to the development of advanced biopharmaceuticals modifying the enzymes.</p> <p>For these plan we are looking for a partner both financial partners and developments.</p>		
Company History	<p>During 1990s, the METI, Japan commenced national project focused on glycobiology. The research infrastructure was consolidated with studies in the expression and synthesis of glycoprotein and the development of analytical technology. Following a project started in 2000 and focused on the cloning and analysis of glycosyltransferase gene. As a result of the comprehensive search of human glycosyltransferases, almost all human glycosyltransferase genes including over 30 genes were cloned at the Research Center for Glycoscience at the AIST. During the time, an additional project developed a rapid analysis system for glycans using a mass spectrometry and a glycan synthesizing technology. These provided a platform for glycoscience and technology for industry.</p> <p>Aiming at the future industrial development, METI established AIST Innovation Center for Start-ups to establish and support a company who start ups with use of the technology of AIST. GlycoGene, Inc., is one of them. The company recognized as an innovative technology transfer company by AIST, receiving an opportunity of granting exclusive licenses of related technologies from AIST.</p> <p>By this system, we have been licensed some of glycosyltransferase and the applications as well as the technologies of glycan synthesis. Applying to the system, we established a company "GlycoGene, Inc." on 1st of December, 2006 aiming to support research and biopharmaceuticals development with use of the technologies.</p>		

Main Products/ Service & Niche of Products/ Service	<p>We are providing services and products followings:</p> <ol style="list-style-type: none"> 1. Human glycosyltransferases 2. Custom synthesis of N-glycans and O-glycans, as well as glycopeptides 4. Glycan synthesis on a peptide and protein in vitro by use of human glycosyltransferases 5. Biopharmaceuticals development by modifying peptide/proteins with glycans
Market Potentials	<p>Glycosyltransferases will be used for the basic science and technology for the glycobiology and the market is now growing rapidly.</p> <p>Natural sourced N-glycans are available but the variety of the structure is limited and we can synthesize any glycans by use of the enzymes. Also we are able to provide O-glycans which is not available now in the market. Those N- and O- glycans will be used as a standard or early research purpose and look for the potential of drug candidate or analytical standard.</p> <p>We also can provide glycan modification and glycan synthesis for protein and peptide by use of the enzymes. So far we have demonstrated the capabilities and the potentials. It can be used for the development of a new features of glycoprotein drugs such as elongate the half life, or adding a specific glycan for a specific receptors.</p>
Company Core Competence or Competitive Advantage	<p>We are able to access to the comprehensive human glycosyltransferase genes</p> <p>We have established synthesis of 12 human glycosyltransferases so far and now they are commercially available, and we are planning to add 13 more enzymes very soon.</p> <p>We can provide service of glycan modification for protein and peptide by use of human glycosyltransferases, either in vitro or by use of some expression systems such as yeast and mammalian cell culture systems.</p> <p>We can provide a comprehensive glycan structure analysis service by use of the technology developed at AIST.</p>
Partnering Objectives	<p>We are looking for a partner who are interested to sell our product and services as well as to develop glycan modified biopharmaceutical candidates.</p>