ProBioGen
Intelligent Biopharmaceutical Solutions

GlymaxX®
Elegant Glyco-Engineering

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**PRESS RELEASE**

# ProBioGen Will License GlymaxX® to Thermo Fisher Scientific for Use in Developing Allergy Diagnostics

Afucosylation can enable more precise assessment of allergic sensitization

Berlin and Freiburg, Germany, May 18th, 2016: ProBioGen, a leading specialist for contract development and manufacturing of complex glycoproteins and corresponding technologies, today announced that Thermo Fisher Scientific has licensed its GlymaxX® technology for use in development of allergy diagnostics.

ProBioGen's CSO, Dr. Volker Sandig, comments: "Deviating from the typical GlymaxX® application of enhancing the cell-killing potency of CHO-derived therapeutic antibodies in cancer, GlymaxX® plays out its universal applicability in a radically different field. In this case, GlymaxX® acts to prevent the formation of cross-reactive carbohydrate determinants on recombinant proteins, expressed in insect cells, which would otherwise cause the detection of IgE antibodies of a certain kind with no clinical significance. Thus, this sophisticated technology serves to add to the specificity of the diagnostics test result."

Dr. Jon-Sverre Schanche, VP R&D for Thermo Fisher's ImmunoDiagnostics business explains: "Our ImmunoCAP blood tests for allergen-specific IgE antibodies aid clinicians worldwide in their diagnoses of patients with allergy-like symptoms. The GlymaxX® technology will help us in our effort to develop diagnostic tests that deliver even greater clinical precision for the benefit of doctors and allergic patients worldwide."

ProBioGen's CEO, Dr. Wieland Wolf, added: "We are very pleased that GlymaxX®, besides its successful therapeutic application, is now employed for diagnostics as well. This proves again the versatile and intelligent solutions GlymaxX® can provide."

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## About GlymaxX® www.glymaxx.de

The GlymaxX® technology, developed by ProBioGen, prevents the synthesis of the sugar "fucose" in cells which are stably modified with a specific enzyme-encoding gene. This enzyme deflects the cellular pathway of fucose biosynthesis with literally no fucose being made anymore. Upon modifying an antibody producer cell with the GlymaxX® enzyme, the antibody's N-linked carbohydrate part becomes afucosylated, which greatly enhances its ADCC (Antibody-dependent cell-mediated cytotoxicity) activity, .i.e. the antibody's cell-killing potency against cancerous or infected cells. Besides for antibodies GlymaxX® can of course also be applied for any other recombinant protein. Moreover, GlymaxX® cell lines can be two cell lines in one: They can either produce afucosylated antibodies, or, by adding defined amounts of fucose to the medium, stably produce fucosylated antibodies again, but with an adjusted degree of fucosylation.
The GlymaxX® technology is universally applicable, simple and potent, and can be rapidly applied to any existing antibody producer cell line, to any new cell line development or to entire expression platforms. ProBioGen offers this technology royalty-free to third parties.

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## About ProBioGen www.probiogen.de

ProBioGen is a specialist for developing and manufacturing complex therapeutic glycoproteins.
Combining both state-of-the-art development platforms together with intelligent product-specific technologies yields biologics with optimized properties. Rapid and integrated cell line and process development, comprehensive analytical development and following reliable GMP manufacturing is performed by a highly skilled and experienced team. All services and technologies are embedded in a total quality management system to assure compliance with international ISO and GMP standards (EMA/FDA). ProBioGen was founded 1994, is privately owned and located in Berlin, Germany.

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