# atugen Announces Collaboration with Novo Nordisk

**Berlin, Germany. 08 January, 2002** - atugen AG announced today that it has signed a collaboration agreement with Novo Nordisk A/S to validate novel genetic targets associated with diabetes and related diseases. After the first year, Novo Nordisk will have the option to enter into a long term Target Validation and License Agreement.

Under the terms of the agreement, atugen will develop GeneBlocs, specially designed antisense oligonucleotides, which inhibit expression of specific genetic targets selected by Novo Nordisk. atugen and Novo Nordisk will jointly analyse the effects of the GeneBlocs in a variety of pharmacological assays, including animal models predictive of human disease, thus providing the validation required to move genetic targets into drug screening and development. No financial details were disclosed.

Under the proposed Target Validation and License Agreement, atugen will receive upfront and annual payments, as well as potential future milestone and royalty fees. In addition, atugen will have the option to licence certain intellectual property generated during the term of the agreement, and to develop antisense therapeutics against targets that Novo Nordisk declines to investigate further. This could provide atugen with a potential portfolio of therapeutic targets for its own development pipeline.

“The pharmaceutical industry is currently faced with the enormous challenge of sifting through thousands of novel genes to find those that are causative to disease, high-value and drugable,” said Dr Rudi Neirinckx, CEO of atugen. “We are delighted that Novo Nordisk, a world leader in diabetes and metabolic disorders, has recognised atugen’s antisense technology as a means of quickly and efficiently validating their novel genetic targets, thus reducing costs and attrition rates in drug development.”

**Novo Nordisk A/S** is a focused healthcare company and the world leader in diabetes care. In addition, Novo Nordisk manufactures and markets a variety of other pharmaceutical products. With headquarters in Denmark, Novo Nordisk employs approximately 16,000 people in 68 countries and markets its products in 179 countries. Its B shares are listed on the stock exchanges in Copenhagen and London. Its ADRs are listed on the New York Stock Exchange under the symbol "NVO". For further company information visit http://www.novonordisk.com.

**atugen AG** is a leading functional genomics Company with headquarters in Berlin, Germany and a subsidiary in Boulder, Colorado, USA. atugen’s GeneBloc® technology can help pharmaceutical and biotechnology partners validate and select genetic targets of therapeutic value, as well as optimize their lead compounds, resulting in a decrease in the number of product failures and a subsequent reduction in the cost of developing new drugs. atugen’s internal research programmes in oncology have identified several novel cancer associated genes that are currently being evaluated for the development of small molecule and antisense therapeutics. atugen provides or has provided target discovery and validation services to Arena Pharmaceuticals, Astra Zeneca, Axys Pharmaceuticals, Bayer, Byk Gulden, Roche BioScience, BASF, Boehringer Ingelheim, Millennium, Oxford GlycoSciences, Schering AG and its US affiliate, Berlex Biosciences, and Serono.

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**Notes to Editors**

**atugen's proprietary GeneBloc® technology** is based on the delivery of specially designed antisense oligonucleotides that reduce the expression of target genes *in vitro* and *in vivo*, thereby inhibiting protein production, and hence affecting a biological function. The direct correlation between reduction in target gene expression and effects on cellular function rapidly provides the validation required to move a genetic target into drug screening and development. Through atugen's novel discovery approach it is able to induce a disease process and then dissect the molecular pathways involved, thus determining which gene is mainly responsible for the disease and thereby providing the best target for therapeutic treatment with the lowest side effect profile. atugen's proprietary delivery reagents, which transport the GeneBlocs into the cells, are extremely low toxic and efficient enabling analysis of gene function in cellular assays over several days. atugen's GeneBloc® technology can provide biotechnology and pharmaceutical partners with high quality, cost-effective, reliable and efficient genetic target validation, thus accelerating the development of novel drugs into the market. atugen is also investigating the therapeutic application of GeneBlocs through its internal research programs.