GeneNova collaboration to develop adeno-associated virus based gene therapies

Unique innovation collaboration funded by academia and industry

A 5-year multi-disciplinary collaboration has been launched to develop adeno-associated virus (AAV) based gene therapies, funded by academia and industry. KTH is host for the newly funded Vinnova Innovation Milieu ''GeneNova''.

AAV based gene therapies have potential for curative treatment of a range of serious human diseases. One of the current technology limitations is the high manufacturing costs and limited supply.

A unique collection of world-leading Swedish technology and service providers, pharma companies and university faculties have joined forces to establish the GeneNova collaboration aimed at disrupting the current strategies for the development and bioproduction of these advanced therapies. The shared vision of GeneNova is to innovate and apply novel technological solutions throughout the drug development process.

This collaboration is supported by Sweden's Innovation agency, Vinnova, and industry partners to just over 110MSEK total budget 2021-2026.
Partners of GeneNova: Alfa Laval, AstraZeneca, Biotage, CombiGene, Karolinska Institutet, KTH Royal Institute of Technology, Uppsala University, Vironova, Ziccum

Johan Rockberg, Professor in Antibody Technology and Directed Evolution, GeneNova Director, KTH Royal Institute of Technology, Stockholm
"I am extremely honored and excited to lead the GeneNova team with such wide representation of experts spanning from hardware, automation, mechanics, AI and mathematics to protein and cell engineering, bioprocess development, separation, drug discovery, neurology, virology and formulation. Five years from now we aim to be able to look back at how we have contributed with many new perspectives, technologies and applications of gene therapy development for the benefit of the patients."

Gail Wasserman, Senior Vice President, Biopharmaceutical Development, R&D, AstraZeneca:
"AstraZeneca is delighted to join this collaboration of leading companies and academic partners for the GeneNova program. We look forward to working together with the aim of delivering transformative improvements to the development and bioproduction processes of future AAV gene therapies''.

Jan Nilsson, CEO CombiGene:
"At CombiGene, we are proud to be part of this pioneering project. Breaking new ground and removing barriers is at the core of our DNA, and we are thrilled to be collaborating with some of Sweden's leading experts within academia and industry. AAV based gene therapies represent fantastic opportunities to create new treatments, and if we, on top of that, can develop novel and inexpensive production method, the benefits would be enormous."