

Icon Genetics and Bayer CropScience successfully completed the development of a plant host system with designer glycosylation needed for manufacturing biopharmaceuticals in green plants

Munich, December 17, 2013 - Icon Genetics GmbH, Munich, Germany (ICON) and Bayer CropScience have successfully created a novel plant host system for the production of biopharmaceuticals. Bayer has delivered a Nicotiana plant that is deficient in plant-specific sugar residues resulting in different plant glycosylation patterns. The plant host is already being used by ICON as a new component in its protein production platform and as a basis for the development of a further improved production host with more complex "humanized" glycan structures that also include sialylation pathway. The availability of these plant host systems providing different glycosylation patterns of recombinant proteins are necessary for manufacturing of novel and more potent biopharmaceuticals in green plants.

Since its inception in 1999, ICON has developed a number of plant-based manufacturing technologies with strong emphasis on plant virus-based transient expression systems. Production host engineering was an essential part of the development as it allowed to generate comprehensive technology and IP package providing for manufacturing biopharmaceuticals in plants. Completion of contract development agreement provides ICON and its customers with technologies package that has many advantages in comparison with more traditional approaches.

Dr. Victor Klimyuk, COO of ICON, said: "The availability of plant production hosts with novel and useful glycosylation, will further enhance ICON's dominant position as the leading technology provider in the field of plant-made biopharmaceuticals. Long-lasting doubts about ability of plant production host to provide biopharmaceuticals with desired human-like or designer glycosylation can be put to rest."

About ICON:

ICON is a wholly owned subsidiary of Nomad Bioscience GmbH, Munich, Germany. The Company discovers and develops new biopharmaceuticals and high-value protein products using green plants as production hosts. ICON offers new plant manufacturing technologies which address speed, yield, precision, expression control and safety of product manufacturing in plants. ICON operates its own cGMP-compliant manufacturing facility in Halle, Germany. ICON's own pipeline includes several 'biobetter' anti-cancer antibodies (pre-clinical stage) and vaccines. More information at <http://www.icongenetics.de>