New Preliminary Efficacy Data for Daratumumab Presented at ASH

Company Announcement

- **Preliminary safety and efficacy data from final patients in part 1 of study continue to be encouraging**
- **Data presented in oral presentation today at the ASH Annual Meeting**
- **Part 2 of study, evaluating 24 month daratumumab dosing initiated**

Copenhagen, Denmark; December 9, 2012 – Genmab A/S (OMX: GEN) announced today new preliminary safety and efficacy data from the Phase I/II clinical study of daratumumab (HuMax®-CD38) in multiple myeloma. Of the three patients treated at the highest (and final) dose level in the study (24 mg/kg of daratumumab), two achieved a partial response (PR) and one achieved a minimal response (MR). Altogether, 8 of 12 patients in the study who received daratumumab at a dose level of 4 mg/kg or higher achieved at least a MR.

The data presented today at the American Society of Hematology (ASH) annual meeting was from 32 patients who received daratumumab in doses up to 24 mg/kg. The data continued to show no major safety issues with daratumumab. The most relevant drug related adverse events were brief, low-grade infusion related reactions and a temporary drop in the level of NK cells.

Part 2 of the study in which patients will receive multiple 8 mg/kg doses of daratumumab for 24 months or until disease progression has been initiated.

"Data from this ongoing study of daratumumab in heavily pretreated multiple myeloma patients continues to be very encouraging and we are excited that the second part of the study where we will collect data on extended dosing of daratumumab has begun," said Jan van de Winkel, Ph.D., Chief Executive Officer of Genmab.

Prof. Torben Plesner, Vejle Hospital, Denmark, will present the slides from today's oral presentation as part of Genmab's Post ASH Seminar, which will be webcast on December 17 at www.genmab.com.

About the study
This ongoing Phase I/II dose escalation study will include a maximum of 108 patients with multiple myeloma that is relapsed or refractory to at least two different prior treatments. The primary objective of the study is to establish the safety profile of daratumumab and secondary objectives are to establish maximum tolerated dose and efficacy. An independent data monitoring committee evaluates the safety data for each cohort before dose-escalation.

About daratumumab
Daratumumab is a human CD38 monoclonal antibody with broad-spectrum killing activity. Daratumumab is in clinical development for multiple myeloma (MM). Daratumumab targets the CD38 molecule which is highly expressed on the surface of multiple myeloma cells. Daratumumab could also have potential in other cancers on which CD38 is expressed, including diffuse large B-cell lymphoma, chronic lymphocytic leukemia, acute lymphoblastic leukemia, plasma cell leukemia, acute myeloid leukemia, follicular lymphoma and mantle cell lymphoma. In August 2012, Genmab granted Janssen Biotech, Inc. an exclusive worldwide license to develop and commercialize daratumumab.

About Genmab A/S
Genmab is a publicly traded, international biotechnology company specializing in the creation and development of differentiated human antibody therapeutics for the treatment of cancer. Founded in 1999, the company's first marketed antibody, ofatumumab (Arzerra®), was approved to treat chronic lymphocytic leukemia in patients who are refractory to fludarabine and alemtuzumab after less than eight years in development. Genmab's validated and next generation antibody technologies are expected to provide a steady stream of future product candidates. Partnering of innovative product candidates and

technologies is a key focus of Genmab's strategy and the company has alliances with top tier pharmaceutical and biotechnology companies. For more information visit www.genmab.com.

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