UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE MONTH OF JULY 2022

COMMISSION FILE NUMBER 001-38976

Genmab A/S

(Exact name of Registrant as specified in its charter)

Kalvebod Brygge 43 1560 Copenhagen V Denmark +45 70 20 27 28

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F ⊠ Form 40-F □

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1)

Yes 🗆 🛛 No 🖾

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7)

Yes 🗆 🛛 No 🖾

This report on Form 6-K shall be deemed to be incorporated by reference in Genmab A/S's registration statements on Form S-8 (File No. 333-232693) and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

SIGNATURE Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GENMAB A/S

BY: /s/ Birgitte Stephensen Name: Birgitte Stephensen Title: Executive Vice President & Chief Legal Officer

DATE: July 1, 2022

EXHIBIT INDEX

Exhibit Description of Exhibit

99.1 Company Announcement Dated July 1, 2022: Major Shareholder Announcement



Major Shareholder Announcement

Company Announcement

• Major shareholder announcement for Genmab A/S

COPENHAGEN, Denmark; July 1, 2022 – Genmab A/S (Nasdaq: GMAB) announces under reference to Section 30 of the Danish Capital Markets Act that Wellington Management Group LLP has informed us that, as of June 30, 2022 Wellington Management Group LLP had decreased their holding of shares in Genmab A/S to 4.97% of the share capital and voting rights in Genmab A/S, so that through shares and financial instruments they held the voting rights to a total of 3,278,677 shares in Genmab A/S, which amounts to 4.98% of the share capital and voting rights in Genmab A/S.

About Genmab

Genmab is an international biotechnology company with a core purpose to improve the lives of people with cancer. For more than 20 years, Genmab's vision to transform cancer treatment has driven its passionate, innovative and collaborative teams to invent next-generation antibody technology platforms and leverage translational research and data sciences, fueling multiple differentiated cancer treatments that make an impact on people's lives. To develop and deliver novel therapies to patients, Genmab has formed 20+ strategic partnerships with biotechnology and pharmaceutical companies. Genmab's proprietary pipeline includes bispecific T-cell engagers, next-generation immune checkpoint modulators, effector function enhanced antibodies and antibody-drug conjugates.

Genmab is headquartered in Copenhagen, Denmark with locations in Utrecht, the Netherlands, Princeton, New Jersey, U.S. and Tokyo, Japan. For more information, please visit Genmab.com and follow us on Twitter.com/Genmab.

Contact:

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This Company Announcement contains forward looking statements. The words "believe", "expect", "anticipate", "intend" and "plan" and similar expressions identify forward looking statements. Actual results or performance may differ materially from any future results or performance expressed or implied by such statements. The important factors that could cause our actual results or performance to differ materially include, among others, risks associated with preclinical development of products, uncertainties related to the outcome and conduct of clinical trials including unforeseen safety issues, uncertainties related to product manufacturing, the lack of market acceptance of our products, our inability to manage growth, the competitive environment in relation to our business area and markets, our inability to attract and retain suitably qualified personnel, the unenforceability or lack of protection of our patents and proprietary rights, our relationships with affiliated entities, changes and developments in technology which may render our products or technologies obsolete, and other factors. For a further discussion of these risks, please refer to the risk management sections in Genmab's most recent financial reports, which are available on www.genmab.com and the risk factors included in Genmab's most recent Annual Report on Form 20-F and other filings with the U.S. Securities and Exchange Commission (SEC), which are available at www.sec.gov. Genmab does not undertake any obligation to update or revise forward looking statements in this Company Announcement nor to confirm such statements to reflect subsequent events or circumstances after the date made or in relation to actual results, unless required by law.

Genmab A/S and/or its subsidiaries own the following trademarks: Genmab[®]; the Y-shaped Genmab logo[®]; Genmab in combination with the Y-shaped Genmab logo[®]; HuMax[®]; DuoBody[®]; DuoBody in combination with the DuoBody logo[®]; HexaBody[®]; HexaBody in combination with the HexaBody logo[®]; DuoHexaBody[®] and HexElect[®]

Genmab A/S Kalvebod Brygge 43 21560 Copenhagen V, Denmark Tel: +45 7020 2728 Fax: +45 7020 2729 www.genmab.com Company Announcement no. 27 Page 1/1 CVR no. 2102 3884 LEI Code 529900MTJPDPE4MHJ122