

To the Shareholders of Genmab A/S

Genmab A/S
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CVR no. 2102 3884

February 28, 2019

ANNUAL GENERAL MEETING

Genmab A/S (in the following the "Company") hereby invites its shareholders to attend the Annual General Meeting on

Friday March 29, 2019 at 11:00 AM CET

at the Copenhagen Marriott Hotel, Kalvebod Brygge 5, DK-1560 Copenhagen V, Denmark.

Agenda:

1. Report by the Board of Directors on the Company's activities during the past year.
2. Presentation and adoption of the audited Annual Report 2018 and resolution to discharge the Board of Directors and the Executive Management from liability.
3. Resolution on the distribution of profits as recorded in the adopted Annual Report.
4. Election of members of the Board of Directors.
5. Election of auditor.
6. Proposals from the Board of Directors:
 - (a) Amendment of the Remuneration Principles for the Board of Directors and the Executive Management.
 - (b) Approval of remuneration to the Board of Directors for 2019.
 - (c) Amendment of Article 5 of the Company's Articles of Association on authorization to issue warrants.
 - (d) Authorization to acquire treasury shares.
7. Authorization of the chairman of the General Meeting.
8. Any other business.

Complete Proposals

Re item 1 on the agenda:

It is proposed to take note of the report of the Board of Directors.

Re item 2 on the agenda:

It is proposed to adopt the audited Annual Report 2018 and to grant discharge to the Board of Directors and the Executive Management.

Re item 3 on the agenda:

It is proposed that the profit of DKK 1,472 million for the accounting year 2018 be carried forward by transfer to the accumulated deficit.

Re item 4 on the agenda:

Pursuant to Article 12 of the Company's Articles of Association, the members of the Board of Directors are elected for periods of one year. The election period for Mats Pettersson, Deirdre P. Connelly, Pernille Erenbjerg, Rolf Hoffmann, Dr. Paolo Paoletti and Dr. Anders Gersel Pedersen expires at this General Meeting. The Board of Directors proposes to re-elect Mats Pettersson, Deirdre P. Connelly, Pernille Erenbjerg, Rolf Hoffmann, Dr. Paolo Paoletti and Dr. Anders Gersel Pedersen for a one-year period.

About Mats Pettersson, B.Sc.

Swedish, 73, Male

Board Chairman (Independent, elected by the General Meeting); Chairman of the Nominating and Corporate Governance Committee, Member of the Audit Committee

First elected 2013, current term expires 2019

Special Competences

Extensive experience from international research-based biotech and pharmaceutical companies. Founder and CEO of SOBI AB. Responsible for several transforming Business Development deals and former member of various executive management committees at Pharmacia.

Current Board Positions

Member: Magle Chemoswed AB*

About Deirdre P. Connelly

American, 58, Female

Deputy Chairman (Independent, elected by the General Meeting); Member of the Audit Committee, the Nominating and Corporate Governance Committee and the Compensation Committee

First elected 2017, current term expires 2019

Special Competences

More than 30 years' experience as a corporate leader and extensive experience in corporate governance as a board member. Comprehensive experience with business turnaround, corporate culture transformation, product launch, and talent development. Successfully directed the launch of more than 20 new

pharmaceutical drugs. Former President, North America Pharmaceuticals for GlaxoSmithKline.

Current Board Positions

Member: Macy's Inc. and Lincoln National Corporation

About Pernille Erenbjerg

Danish, 51, Female

Board member (Independent, elected by the General Meeting); Chairman of the Audit Committee, Member of the Nominating and Corporate Governance Committee

First elected 2015, current term expires 2019

Special Competences

Senior executive management and broad business experience from the telecoms, media and tech industries. Extensive experience with transformation of large and complex companies, including digital transformations and digitally based innovation. Comprehensive all round background within finance including extensive exposure to stock markets, equity and debt investors. Certified Public Accountant background (no longer practicing). Responsible for major transformation processes in complex organizations including M&A. Former CEO and President of TDC A/S. Due to her experience and background within accounting, Pernille Erenbjerg qualifies as an audit committee financial expert.

Current Board Positions

Deputy Chair: Millicom International Cellular SA

Member: Nordea Bank AB

Audit Committee Member: Nordea Bank AB

About Rolf Hoffmann

German, 59, Male

Board member (Independent, elected by the General Meeting); Member of the Scientific Committee and the Compensation Committee

First elected 2017, current term expires 2019

Special Competences

Extensive international management experience with expertise in creating and optimizing commercial opportunities in global markets. Additional expertise in P&L management, governance and corporate integrity agreement management, compliance and organizational efficiency. Over 20 years' experience in the international pharmaceutical and biotechnology industries at Eli Lilly and Company and Amgen, Inc.

Current Positions, including Managerial Positions

Adjunct Professor of Strategy and Entrepreneurship at the University of North Carolina Business School

Current Board Positions

Chairman: Biotest AG

Member: Trigemina, Inc.*, Shield Therapeutics PLC, Paratek Pharmaceuticals, Inc. and EUSA Pharma, Inc.*

About Paolo Paoletti, M.D.

Italian (USA citizenship), 68, Male

Board member (Independent, elected by the General Meeting); Chairman of the Scientific Committee

First elected 2015, current term expires 2019

Special Competences

Extensive experience in research, development and commercialization in the pharmaceutical industry. Successfully conducted submissions and approvals of

new cancer drugs and new indications in the USA and in Europe. Responsible for seven new medicines for cancer patients during his 10 years at GlaxoSmithKline and one new cancer medicine during his time at Eli Lilly.

Current Positions, Including Managerial Positions

Acting CEO at GammaDelta Therapeutics Limited*

Current Board Positions

Chairman: PsiOxus Therapeutics Limited*

Member: FORMA Therapeutics, Inc.*

About Anders Gersel Pedersen, M.D., Ph.D.

Danish, 67, Male

Board member (Non-independent, elected by the General Meeting); Chairman of the Compensation Committee, Member of the Scientific Committee

First elected 2003, current term expires 2019

Special Competences

Business and management experience in the pharmaceutical industry, including expertise in clinical research, development, regulatory affairs and product life cycle management. Former Executive Vice President of Research & Development of H. Lundbeck A/S.

Current Board Positions

Deputy Chairman: Bavarian Nordic A/S

Member: Hansa Biopharma AB

Companies marked with an asterisk (*) are non-public companies.

Re item 5 on the agenda:

The Board of Directors proposes re-election of PricewaterhouseCoopers, Statsautoriseret Revisionspartnerselskab as the Company's elected auditor in accordance with the Audit Committee's recommendation. The Audit Committee has not been influenced by third parties and has not been subject to any agreement with third parties, which limits the General Meeting's choice to certain auditors or audit firms.

Re item 6 (a) on the agenda:

In order for the Company to remain competitive in the international market and to be able to retain and attract qualified members of the Executive Management, the Board of Directors proposes to adjust the Company's Remuneration Principles so that the value of the share-based instruments, which can be granted to members of the Executive Management on an annual basis going forward shall be maximized to up to four (4) times the member's annual base salary calculated before any pension contribution and bonus payment, in the year of grant (see page 4 of the proposed amended Remuneration Principles).

In the existing Remuneration Principles the 4-year maximum already applies in exceptional cases for grants of the share-based instruments to international and in particular US based members of the Executive Management.

With a view to further tie the interest of the members of the Executive Management to the interest of the Company's shareholders it is also proposed to amend the Company's Remuneration Principles so that restricted stock units

granted to members of the Executive Management shall be subject to forward-looking performance criteria (see pages 4 and 6 of the proposed amended Remuneration Principles).

It is further proposed to amend the Remuneration Principles, so that if members of the Executive Management are granted a combination of restricted stock units and warrants, then the proportional value of the warrants may not exceed 25% of the total value (at the time of grant). This is a decrease from a proportional value of 50% (see page 4 of the proposed amended Remuneration Principles).

In order to increase the Company's transparency in relation to vesting criteria, it is further proposed to specify the forward-looking criteria which the vesting of restricted stock units granted to members of the Executive Management may be subject to, in accordance with the attached proposed amended Remuneration Principles (see page 6 of the proposed amended Remuneration Principles).

Re item 6 (b) on the agenda:

The Board of Directors proposes that the fees for members of the Board of Directors, including the committees thereof, in 2019 shall remain unchanged at the same level as in 2018:

- The annual base fee for members of the Board of Directors shall be DKK 400,000
- The chairman of the Board of Directors shall receive three times the annual base fee
- The deputy chairman of the Board of Directors shall receive two times the annual base fee
- The Audit Committee chairman shall receive an annual fee of DKK 150,000 and the Audit Committee members an annual fee of DKK 100,000
- The Compensation Committee chairman shall receive an annual fee of DKK 120,000 and the Compensation Committee members an annual fee of DKK 80,000
- The Nominating and Corporate Governance Committee chairman shall receive an annual fee of DKK 100,000 and the Nominating and Corporate Governance Committee members an annual fee of DKK 70,000
- The Scientific Committee chairman shall receive an annual fee of DKK 130,000 and the Scientific Committee members an annual fee of DKK 100,000
- All committee members shall receive a fee of DKK 10,000 per committee meeting

Members of the Board of Directors will furthermore receive share-based instruments in the form of restricted stock units within the scope described and adopted in the Company's Remuneration Principles.

Re item 6 (c) on the agenda:

In order for the Company to remain competitive in the international market and to be able to retain and attract qualified employees, the Company generally finds it necessary and in the best interest of the Company, to be able to continue the

existing employee remuneration policy in respect of warrant grants. Therefore, the Board of Directors proposes that Article 5 of the Company's Articles of Association be amended so that the Board of Directors is authorized to issue an additional 500,000 warrants to employees of the Company as well as employees of the Company's directly and indirectly owned subsidiaries (excluding the Company's Executive Management), entitling the holder to subscribe for shares in the Company up to a nominal value of DKK 500,000. With this authorization to issue an additional 500,000 warrants, the potential dilution (including the outstanding warrants and the aggregate unused part of the existing authorizations) is kept below 5% of the share capital.

The proposal means that Article 5 will read as follows:

"§ 5

By decision of the General Meeting on April 9, 2014 the Board of Directors is authorized to issue on one or more occasions warrants to subscribe the Company's shares up to a nominal value of DKK 500,000 and to make the related capital increases in cash up to a nominal value of DKK 500,000. The Board of Directors has issued 500,000 warrants and re-issued 29,511 warrants under this authorization. This authorization shall remain in force for a period ending on April 9, 2019.

Moreover, by decision of the General Meeting on March 28, 2017 the Board of Directors is authorized to issue on one or more occasions additional warrants to subscribe the Company's shares up to a nominal value of DKK 500,000 and to make the related capital increases in cash up to a nominal value of DKK 500,000. The Board of Directors has issued 333,217 warrants and re-issued 2,933 warrants under this authorization. This authorization shall remain in force for a period ending on March 28, 2022.

Furthermore, by decision of the General Meeting on March 29, 2019 the Board of Directors is authorized to issue on one or more occasions additional warrants to subscribe the Company's shares up to a nominal value of DKK 500,000 to the Company's employees as well as employees of the Company's directly and indirectly owned subsidiaries, excluding the Company's executive management, and to make the related capital increases in cash up to a nominal value of DKK 500,000. This authorization shall remain in force for a period ending on March 28, 2024.

The authorizations entitle the Board of Directors to issue warrants to the Company's employees as well as employees of the Company's directly and indirectly owned subsidiaries however, with the authorization of March 29, 2019 not comprising the Company's executive management. Subject to the rules in force at any time, the Board of Directors may re-use or re-issue lapsed non-exercised warrants, if any, provided that the re-use or re-issue occurs under the same terms and within the time limitations set out in this authorization. Re-use is to be construed as the Board of Directors' entitlement to let another party enter into an existing agreement on warrants. Re-issue is to be construed as the Board of Directors' option to re-issue new warrants under the same authorization, if previously issued warrants have lapsed. The existing shareholders of the Company shall not have a right of pre-emption in connection with the issue of warrants based on these authorizations. One warrant shall give the right to subscribe one share with a nominal value of DKK 1 at a subscription price per

share determined by the Board of Directors which, however, shall be no less than the market price per share of the Company's shares at the time of issue.

The exercise period for the issued warrants shall be determined by the Board of Directors.

The Board of Directors is authorized to set out more detailed terms for the warrants that are to be issued based on these authorizations.

The existing shareholders of the Company shall not have a right of pre-emption in connection with issue of shares on the basis of warrants. The shares that are issued through the exercise of warrants shall have the same rights as existing shares cf. these Articles of Association.

The Board of Directors has exercised the above authorizations as stipulated in schedule A which is an integral part of these articles."

The proposed Article 5 will in Danish read:

"§ 5

Ved generalforsamlingsbeslutning af 9. april 2014 er bestyrelsen bemyndiget til ad en eller flere gange at udstede warrants til tegning af selskabets aktier med indtil nominelt 500.000 kr. og til at gennemføre de dertil relaterede kontante kapitalforhøjelser på indtil nominelt 500.000 kr. Bestyrelsen har udstedt 500.000 warrants samt genudstedt 29.511 warrants under denne bemyndigelse. Denne bemyndigelse skal være gældende i perioden frem til 9. april 2019.

Yderligere er bestyrelsen ved generalforsamlingsbeslutning af 28. marts 2017 bemyndiget til ad en eller flere gange at udstede yderligere warrants til tegning af selskabets aktier med indtil nominelt 500.000 kr. og til at gennemføre de dertil relaterede kontante kapitalforhøjelser på indtil nominelt 500.000 kr. Bestyrelsen har udstedt 333.217 warrants samt genudstedt 2.933 warrants under denne bemyndigelse. Denne bemyndigelse skal være gældende i perioden frem til 28. marts 2022.

Yderligere er bestyrelsen ved generalforsamlingsbeslutning af 29. marts 2019 bemyndiget til ad en eller flere gange at udstede yderligere warrants til tegning af selskabets aktier med indtil nominelt 500.000 kr. til selskabets medarbejdere samt medarbejdere i selskabets direkte og indirekte ejede datterselskaber, med undtagelse af medlemmerne af selskabets direktion, og til at gennemføre de dertil relaterede kontante kapitalforhøjelser på indtil nominelt 500.000 kr. Denne bemyndigelse skal være gældende i perioden frem til 28. marts 2024.

Bemyndigelserne giver ret til at udstede warrants til selskabets medarbejdere samt medarbejdere i selskabets direkte og indirekte ejede datterselskaber dog med undtagelse af bemyndigelsen af 29. marts 2019, som ikke omfatter medlemmerne af selskabets direktion. Bestyrelsen kan efter de til enhver tid gældende regler genanvende eller genudstede eventuelle bortfaldne ikke udnyttede warrants, forudsat at genanvendelsen eller genudstedelsen finder sted inden for de vilkår og tidsmæssige begrænsninger, der fremgår af denne bemyndigelse. Ved genanvendelse forstås adgang for bestyrelsen til at lade en anden aftalepart indtræde i en allerede bestående aftale om warrants. Ved genudstedelse forstås bestyrelsens mulighed for inden for samme bemyndigelse at genudstede nye warrants, hvis allerede udstedte warrants er bortfaldet.

Selskabets aktionærer skal ikke have fortegningsret ved tildeling af warrants i henhold til disse bemyndigelser. En warrant skal give ret til at tegne nominelt 1 kr. aktie til en af bestyrelsen fastsat tegningskurs pr. aktie, der dog ikke kan være lavere end markedskursen på selskabets aktier på tildelingstidspunktet.

Udnyttelsesperioden for warrants bestemmes af bestyrelsen.

Bestyrelsen er berettiget til at fastsætte nærmere vilkår for de warrants, der udstedes i henhold til bemyndigelserne.

Selskabets aktionærer skal ikke have fortegningsret til de på grundlag af warrants udstedte aktier. Aktier, der tegnes ved udnyttelse af warrants, skal have de samme rettigheder som selskabets eksisterende aktier, jfr. i det hele disse vedtægter.

Bestyrelsen har udnyttet bemyndigelserne indeholdt i § 5 som anført i bilag A, som er vedlagt vedtægterne og udgør en integreret del heraf."

The number of warrants issued and/or re-issued pursuant to the authorizations in subsections 1 and 2 of the proposed Article 5, is subject to change in case of future warrant grants resolved before the Annual General Meeting.

Re item 6 (d) on the agenda:

The Board of Directors proposes that the Annual General Meeting authorizes the Board of Directors to allow the Company during the period until and including March 28, 2024 to acquire treasury shares up to a total nominal amount of DKK 500,000, corresponding to 0.8% of the share capital. The purchase price for the relevant shares may not deviate by more than 10% from the price quoted on Nasdaq Copenhagen A/S at the time of the acquisition.

The Board of Directors intends to primarily use the authorization to enable the Company to reduce the dilution effect of the share capital increases resulting from future exercises of warrants granted under the proposed authorization to issue warrants under item 6 (c) above.

Currently the Company holds nominally DKK 177,550 treasury shares and the non-utilized part of authorization granted on March 17, 2016 is nominally DKK 275,000. Consequently, the maximum nominal amount of treasury shares which the Company will be authorized to acquire and hold pursuant to the proposed authorization and the authorization granted on March 17, 2016 is DKK 952,550, corresponding to 1.5% of the Company's current share capital.

Re item 7 on the agenda:

The Board of Directors proposes that the chairman of the General Meeting is authorized to register the resolutions passed by the General Meeting with the Danish Business Authority and to make such amendments and additions thereto or therein, including the Articles of Association of the Company, as the Danish Business Authority may require for registration.

The proposal under item 6 (c) of the agenda to amend the Articles of Association is required to be adopted by an affirmative vote of not less than 2/3 of the votes

cast as well as of the voting share capital represented at the General Meeting. The proposals under the remaining items of the agenda require a simple majority of votes.

The Company's share capital amounts to DKK 61,523,868 divided into shares of DKK 1 each or any multiple hereof. Each share amount of DKK 1 shall entitle the shareholder to one vote.

Pursuant to Section 99 of the Danish Companies Act, the following documents will be published on the Company's website (www.genmab.com) no later than March 7, 2019: (1) the notice of the Annual General Meeting, (2) information on the total number of shares and votes issued by the Company on the date of the notice, (3) the agenda, (4) the complete proposals to be presented at the Annual General Meeting, (5) the proposed amended Remuneration Principles, (6) the Annual Report for 2018 and (7) forms needed to register for the Annual General Meeting and possible proxy voting and post voting.

Registration Date: A shareholder's right to participate in and vote at the Annual General Meeting is determined in proportion to the number of shares the shareholder owns on the registration date Friday March 22, 2019.

Admission card: Admission cards may be requested no later than Monday March 25, 2019 by:

- Visiting the Company's website www.genmab.com or VP Investor Services A/S' website www.vp.dk/agm no later than 11:59 PM CET to register electronically; or
- Returning the enclosed registration form – duly completed and signed – to VP Investor Services A/S, Weidekampsgade 14, DK-2300 Copenhagen S, Denmark by post or by fax to +45 43 58 88 67 no later than 11:59 PM CET; or
- Contacting Genmab A/S, Investor Relations, Kalvebod Brygge 43, DK-1560 Copenhagen V, Denmark either in person or in writing no later than 10:00 AM CET; or
- Contacting VP Investor Services A/S telephonically at +45 43 58 88 66 no later than 10:00 AM CET.

Proxy vote: Shareholders who do not expect to be able to participate in the General Meeting may:

- Assign a proxy to a person appointed by the shareholder. Proxies shall submit a request for an admission card as described above; or
- Assign a proxy to the Board of Directors. In this case your votes will be cast in accordance with the recommendations of the Board of Directors; or
- Assign a proxy to the Board of Directors by indicating how you wish your votes to be cast.

Go to the Company's website www.genmab.com or VP Investor Services A/S' website www.vp.dk/agm to assign a proxy to the Board of Directors to vote in accordance with its recommendations, or assign a proxy indicating how you wish your votes to be cast by checking the boxes on the electronic proxy form. This must be completed by 11:59 PM CET on Monday March 25, 2019. You may

alternatively complete and sign the enclosed proxy form and return it by post to VP Investor Services A/S, Weidekampsgade 14, DK-2300 Copenhagen S, Denmark, or scan it and return it by e-mail to vpinvestor@vp.dk or by fax to +45 43 58 88 67 so that it is received by VP Investor Services A/S by 11:59 PM CET on Monday March 25, 2019.

Postal vote: Shareholders who do not expect to be able to participate in the General Meeting may also vote by post:

Go to the Company's website www.genmab.com or www.vp.dk/agm to vote by post. This must be completed by 10:00 AM CET on Thursday March 28, 2019. You may alternatively complete and sign the enclosed postal voting form and return it by post to VP Investor Services A/S, Weidekampsgade 14, DK-2300 Copenhagen S, Denmark, or scan it and return it by e-mail to vpinvestor@vp.dk or by fax to +45 43 58 88 67 so that it is received by VP Investor Services A/S by 10:00 AM CET on Thursday March 28, 2019.

Please note that you may *either* assign a proxy *or* vote by post, but not both.

Any shareholder, to whom an admission card already has been issued, but who is prevented from attending the Annual General Meeting is kindly asked to notify the Company - preferably before Monday March 25, 2019.

Right to ask questions: Prior to the General Meeting, the shareholders may ask questions to the Company's management in writing about matters of importance to the evaluation of the Annual Report 2018, the Company's position or any of the other matters which are to be transacted at the General Meeting, or the Company's relation to other companies in the Genmab Group. Shareholders' questions must be sent by letter to Rachel Curtis Gravesen, Senior Vice President, Investor Relations & Communications or by e-mail to rcg@genmab.com. The question may be answered in writing by e.g. making the answer available on the Company's website (www.genmab.com). The question may be neglected if the shareholder asking the question is not represented at the General Meeting. At the General Meeting, the shareholders may also ask questions to the Company's management about the above matters and may ask questions regarding the Annual Report 2018 to the auditor appointed by the General Meeting.

Copenhagen, February 28, 2019
On behalf of the Board of Directors


MATS PETERSSON
Chairman



Scan the QR code with your smartphone or tablet to go to the registration site.