

Important information

Definitions

This information memorandum (the "**Memorandum**") has been prepared in connection with Ziccum AB's (publ), reg. no. 559107-9412 ("**Ziccum**" or the "**Company**"), new issue of units with pre-emption rights for the Company's existing shareholders (the "**Rights Issue**" or the "**Offering**"). "**Carnegie**" or "**Carnegie Investment Bank**" means Carnegie Investment Bank AB (publ), reg. no. 516406-0138. "**Aqurat**" or the "**Issuing Agent**" means Aqurat Fondkommission AB, reg. no. 556736-0515. "**Euroclear**" means Euroclear Sweden AB, reg. no. 556112-8074. "**Warrants**" refers to warrants of series TO 5. Reference to "**SEK**" refers to Swedish kronor and reference to "**EUR**" refers to euros. "**K**" refers to thousand and "**M**" refers to million.

Preparation of the Memorandum

The Memorandum does not constitute a prospectus and has thus not been prepared in accordance with Regulation (EU) 2017/1129 of the European Parliament and of the Council (the "**Prospectus Regulation**") or Commission Delegated Regulation (EU) 2019/980. The memorandum has also not been reviewed, approved by or registered with the Swedish Financial Supervisory Authority in accordance with the Prospectus Regulation. The Rights Issue is exempt from the prospectus obligation in accordance with Article 3(2) of the Prospectus Regulation and Chapter 2, Section 1 of the Act (2019:414) with supplementary provisions to the EU Prospectus Regulation as the amount offered by the Company to the public in the Rights Issue is less than EUR 2.5 million.

Important information to investors

The Offer is not directed, directly or indirectly, to persons whose participation requires that a prospectus be prepared or registered or that any other measure be taken in addition to what is required under Swedish law. The Memorandum may not be distributed in or to a country where the distribution

or the Offer under the Memorandum requires additional registration or other measures other than those required by Swedish law or is contrary to applicable regulations in such country.

Neither unit rights, paid subscription units ("**BTU**") nor the newly issued shares and warrants of series TO 5 have been or will be registered under the United States Securities Act of 1933, as amended, nor under any corresponding law in any state in the United States. The Offer does not include persons domiciled in the United States, Australia, Hong Kong, Japan, Canada, New Zealand, Switzerland, Singapore, South Africa, South Korea, Russia, Belarus or in any other country where the Offer or distribution of the Memorandum is contrary to applicable laws or regulations or requires prospectuses, registrations or other measures than those required by Swedish law. Application for subscription of units in violation of the above may be considered invalid under applicable securities legislation. Consequently, unit rights, BTUs or units may not, directly or indirectly, be offered, subscribed for, exercised, sold, resold, allocated, delivered or in any other way transferred in or to countries where action as described above is required or to shareholders domiciled as described above.

In the United Kingdom, this document and any other materials in relation to the securities described herein is only being distributed to, and is only directed at, and any investment or investment activity to which this document relates is available only to, and will be engaged in only with, "qualified investors" who are (i) persons having professional experience in matters relating to investments who fall within the definition of "investment professionals" in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "**Order**"); or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order

As Ziccum has made the assessment that the Company conducts activities worthy of protection under the Swedish Foreign Direct Investment Screening Act (2023:560), certain investments in the Rights Issue may require review by the Swedish

Inspectorate for Strategic Products. For more information, please visit the Swedish Inspectorate for Strategic Products' website, www.isp.se, or contact the Company.

Disputes and applicable law

Disputes arising from the content of the Memorandum and related legal relationships shall be settled by Swedish public courts. Swedish law is exclusively applicable to the Memorandum.

Market information, certain forward-looking information and risks

The Memorandum contains information from third parties. The Company confirms that information from third parties has been reproduced correctly and that, as far as the Company is aware and can ascertain from information published by third parties, no facts have been omitted that would make the reproduced information incorrect or misleading.

Information in the Memorandum concerning future conditions, such as statements and assumptions regarding the Company's future development and market conditions, is based on current conditions at the time of publication of the Memorandum. Forward-looking information is always associated with uncertainty as it relates to and depends on circumstances beyond the Company's control. Any assurance that assessments made in the Memorandum regarding future conditions will be realised is therefore not provided, either explicitly or implicitly. Nor does the Company undertake to publish updates or revisions of statements regarding future conditions as a result of new information or the like that emerges after the date of publication of the Memorandum, in addition to what follows from applicable legislation.

All information provided in the Memorandum should be carefully considered. Statements about the future and other future conditions in the Memorandum are made by the Board of Directors of the Company and are based on known market conditions. The reader is advised that these statements, like all future assessments, are associated with uncertainty.

Nasdaq First North Growth Market

Nasdaq First North Growth Market is a registered SME growth market, in accordance with the Directive on Markets in Financial Instruments (EU 2014/65) as implemented in the national legislation of Denmark, Finland, Iceland and Sweden, operated by an exchange within the Nasdaq group. Issuers on Nasdaq First North Growth Market are not subject to all the same rules as issuers on a regulated main market, as defined in EU legislation (as implemented in national law). Instead, they are subject to a less extensive set of rules and regulations adjusted to small growth companies. The risk in investing in an issuer on Nasdaq First North Growth Market may therefore be higher than investing in an issuer on the main market. All issuers with shares admitted to trading on Nasdaq First North Growth Market have a Certified Adviser who monitors that the rules are followed. The Company's Certified Adviser is Carnegie Investment Bank.

The unit rights may have an economic value

In order not to lose the value of the unit rights, the holder must either exercise the received unit rights and subscribe for units no later than 14 February 2024, or sell the received unit rights not intended to be exercised for subscription of units no later than 9 February 2024. Please note that it is also possible to apply for subscription of units without the support of unit rights and that shareholders with nominee-registered holdings with a custody account at a bank or other nominee should contact their bank or nominee for instructions on how to subscribe and pay.

Presentation of financial information

Certain financial and other information presented in the Memorandum has been rounded to make the information easily accessible to the reader. Consequently, figures in some columns may not correspond exactly to the stated total. This is the case when amounts are given in thousands or millions and occurs in particular in the section "Financial overview". Except where expressly stated, no information in the Memorandum has been reviewed or audited by the Company's auditor.

Table of content

The Offer in Brief	4
Ziccum in Brief	5
Reasons for the Offer	6
Key milestones achieved	6
Building on momentum	7
Priority areas	7
CEO statement	9
Invitation to subscribe for units in Ziccum	10
Terms and conditions	11
Market overview and business description	18
Market opportunity: A great unmet industry need and its potential solution	18
Strategic focus on vaccines	18
The vaccine market perspective	18
The mRNA perspective - a new era	19
mRNA facts in focus	21
mRNA limitations	22
The laminarpace solution	23
Thermostability, stability, particle engineering	23
Important mRNA results	24
External mRNA study	24
Internal CRO-validated study	25
Technology and intellectual property	26
The ambient temperature advantage of the mass transfer principle	26
How mass transfer drying works	26
Intellectual property: Patents and know-how	26
Competitive overview	27
Biopharmaceutical drying into the future	27
The road ahead	28
Business development, with excellent recognition in the internal industry	28
Long term financing	28
Technology development and scale-out	28
Board of Directors and senior executives	30
Risks and uncertainties	34
Financial overview	38
Legal issues, share capital and ownership	42
Addresses	48

The offer in brief

The offer in brief

Maximum number of newly issued units	1,534,015
Terms and conditions	One (1) share held on the record date entitle the holder to one (1) unit right. Nine (9) unit rights are required to subscribe for one (1) unit. Each unit consists of one (1) share and one (1) warrant of series TO 5.
Subscription price	SEK 6,80 per unit, corresponding to SEK 6,80 per share (warrant TO 5 free of charge)
Issue proceeds at full subscription	Approximately SEK 10.4 million, before estimated issue costs.
Issue proceeds upon full exercise of warrants of series TO 5	Approximately SEK 12.3 million
Subscription and underwriting commitments	-
Record date	29 January 2024
Trading in unit rights	31 January 2024 – 9 February 2024
Subscription period	31 January 2024 – 14 February 2024
Trading in BTU (paid subscribed unit)	31 January 2024 – 1 March 2024 (estimated last date)
Estimated date for publication of final outcome	16 February 2024

ISIN codes

Share	SE0011415595
Unit right	SE0021512357
Paid subscribed unit (BTU)	SE0021512365
Warrant of series TO 5	SE0021512308

Other information

LEI code	5493005TADJBZHXP0U27
Short name	ZICC
Trading venue	Nasdaq First North Growth Market

Ziccum in brief

Enabling delivery and solving stability for biologics and mRNA.

Ziccum AB is a Swedish growth-stage biotech company with a unique formulation and drying platform for biologics and mRNA: LaminarPace.

A great unmet industry need

Biologics and vaccines are generally very delicate and difficult to handle, store and administer, especially so the very fragile mRNA in LNP formulation, requiring very gentle handling and constant cryogenic management all the way from production to patient. All existing mRNA vaccines require unbroken cryogenic storage and handling at -80°C, all the way from production to patient. This very demanding handling, and the severe consequences with increased carbon dioxide emissions, were all accepted during the Covid-19 pandemic due to the pressing need for urgent vaccination across the globe. However, to enable biologics and the high performing mRNA technology to be available for new indications, to meet far more patient needs, these limitations need to be addressed.

LaminarPace - A unique solution

Ziccum's unique technology, LaminarPace, solves key stability issues and enables new delivery options for biologics in general, and for mRNA in particular. The platform can transform delicate liquid biologics into thermostable, particle engineered dry powders that require no cryogenic storage, can be kept at room temperature, are easily handled and highly suited to new delivery options. Uniquely, LaminarPace operates using a mass transfer principle that avoids extreme temperatures during the drying process, preserving the activity of valuable biologic materials. LaminarPace has the potential to play a valuable role in realizing the enormous potential of this market of novel RNA treatments and for a wide range of other biopharmaceutical compounds.

Business model

Ziccum operates using an industry-standard technology licensing business model. LaminarPace is offered

to customers to be incorporated in their commercial manufacturing by licensing and technology transfer. Revenues are primarily generated through milestones and royalties. Today Ziccum is collaborating with top-tier industry partners in biotech, big pharma and pharma manufacturing on paid Feasibility studies, focusing on developing thermostable powder formulations for vaccines and biologics. Ziccum has ongoing Feasibility studies with leading industry corporations, delivering positive results and new data that pave the way for new dialogues, projects, IP and ultimately, licensing deals.

The road ahead

Looking forward, Ziccum envisions the successful completion of current Feasibility studies and the initiation of additional partnerships and projects, through expanding its pipeline of ongoing business development dialogues. Ziccum is committed to developing an industrial version of LaminarPace, ultimately for GMP approval and partnered scale-out. As part of its growth strategy, Ziccum plans further recruitment in 2024 and 2025, carefully growing its team to bolster business and scientific capacities. This focused approach for success, based on a clear strategic plan and a successful business model already delivered upon, thanks to significant industrial insights and highly experienced management with long-standing experience in international pharmaceutical industry, positions Ziccum for sustained success in the dynamic, international biotech landscape.

About Ziccum

The company was spun out in 2017 from Swedish Labtech company Inhalation Sciences AB, founded by Karolinska Institute Associate Professor of inhalation toxicology, and inventor of LaminarPace, Per Gerde. Ziccum went public in 2018 and today is listed on Stockholm's Nasdaq First North growth market. The company has its headquarters with laboratory and pilot facilities in the IDEON Science Park in Lund, Southern Sweden.

Reasons for the offer

The last 18 months have been a period of transformative productivity for Ziccum. The Company aims to use capital raised in this Offer to build on the momentum and milestones of this successful period and ensure continuing progress.

Following new CEO Ann Gidner taking office in May 2022, a focused new business strategy was implemented, based firmly on a technology licensing business model. It has been accompanied by intensive business development efforts. The strategy targets three key vaccine platforms and an active agenda of partnering and business development is pursued. In parallel the technology development of LaminarPace is being pursued in selected key development areas to secure industrial scale readiness and GMP compliance, to prepare for partnered industrial integration into commercial manufacturing.

Key milestones achieved

In 2023 Ziccum has achieved the following:

- Won three new fully paid feasibility study partnerships with top-tier players in biotech, big pharma and pharmaceutical manufacturing.
- Generated milestone mRNA/LNP data in its internal mRNA project with excellent preservation of mRNA activity.
- Generated successful mRNA/LNP results, with a major Biotech corporation, in all key parameters in a partnered Feasibility Study project, including mRNA activity.
- Advanced progress in its internal technology development program and its advanced digital modelling project named LaPaSim in collaboration with the Institute of computational physics at the university of Zurich.
- Was rewarded a 10 MSEK Eurostars grant funding to finance the LaPaSim program.
- Strengthened the scientific and strategic competence of the Ziccum team including key appointments to the management team.
- Expanded the company's patent portfolio with three new patent applications covering equipment development, process parameters and specific formulation adaptation.
- Secured financing into 2025 with US investment firm Global Corporate Financing.



Building on momentum

In order to build on this momentum Ziccum now intends to raise additional funding. Our new rights issue is part of a financing package that includes a 3 million US dollar equity commitment with US investment firm Global Corporate Financing. The Directed New Share Issue and the Rights Issue are carried out in combination to effectively secure working capital to be able to continue pursuing the attractive business and technical development opportunities identified in the Company and in conjunction with the entered agreements with the top-tier pharma companies. Considering the Directed New Share Issue, and provided that the Rights Issue is fully subscribed, Ziccum will receive initial proceeds totaling approximately SEK 13.5 million, after deduction of issue costs totaling approximately SEK 1 million.

Upon full subscription in the Rights Issue, the Company will receive net proceeds of approximately SEK 10.4 million.

In the event that all warrants of series TO 5 are exercised for subscription of shares, the Company will receive an additional approximately SEK 12.3 million.

Priority areas

The financing package will ensure good Company progress and ultimately completion of the following priority projects. If the current Rights Issue is not subscribed to a sufficient extent to cover the working capital requirement, the Company will prioritize the following projects / priority areas in the following order.

PRIORITY AREA 1: Pipeline expansion, project progression, data generation.

Ziccum's current external feasibility studies, as well as its ongoing internal mRNA/LNP Masterplan study, are crucial to the continued quality, tempo and volume of its business development (BD) and, ultimately, profitability. Each project delivers valuable data that represents proof points in the collaboration at hand, as well as to other partnering dialogues, progresses LaminaPace's optimization and strengthens Ziccum's knowhow and intellectual property (IP) position. Progress in building Ziccum's BD pipeline, its projects, data generation, IP position and ultimately ability to deliver major revenues are all tightly wound together. Capital raised in the current offer will ensure the completion of current projects, the generation of new projects (through continuing further BD dialogues), the generation of new milestone data and the strengthening of IP and, ultimately, the generation of licensing agreements.

PRIORITY AREA 2: Technology development and scaleout.

Ziccum has always been clear that a prerequisite for being an attractive licensing partner is to be able to describe an industrial version of LaminaPace suitable for commercial scale and GMP production. Therefore, Ziccum runs two projects progressing towards this. The first is the LaminaPace Masterplan, an internal technology development project, which refines and optimizes LaminaPace and capabilities, again with data and learning from ongoing projects. The second is its partnership with the ICP Institute of computational physics team at the Zurich university of applied science's (ZHAW). This carries out 3D modelling, and ultimately creating a Digital Twin, of LaminaPace that is being used to optimize LaminaPace design, exploring optimal capacity loads and increasing the repeatability of outcomes.

Both projects will be valuable guides and enablers of tech transfer and integration into commercial production during licensing agreement negotiations and beyond. Capital raised in Ziccum's current offer will support ongoing work in both projects, particularly Ziccum's technology development Masterplan. The LaPaSim 3D-modelling project is a fully funded effort thanks to Ziccum and ZHAW being awarded a Eurostars grant in December 2022, and the LaPaSim modelling is building on the actual equipment development and process parameters being defined in the Masterplan execution.

PRIORITY AREA 3: Essential recruitment.

In 2023 Ziccum recruited several new key employees. Specialist expertise in Biopharma and Biotech management and policy, as well as biologics drying, industrial processing, pharmaceutical regulations and operations team management strengthens Ziccum's continued development significantly. Ziccum intends to continue building its team with essential appointments to strengthen its trial run capacity, increasing the business and scientific value of the Company.

The Board of Directors of Ziccum, which is responsible for the content of this Memorandum, has taken all reasonable precautions to ensure that the information provided in the Memorandum, to the best of the board's knowledge, corresponds to the actual conditions and that no information has been omitted that could affect the assessment of the Company.

Lund, 30 January 2024 | Ziccum AB (publ) | The Board of Directors



CEO Statement

Taking Ziccum forward, serving an industry in great need

It is a privilege to take the unique Ziccum technology forward, seeing the potential to greatly improve so many aspects of current vaccine management, as well as enabling entirely new RNA treatments for unmet patient needs.

We have exciting times ahead in 2024 with continued execution on our important partnership studies and taking the technology optimization forward. Securing additional funding will make it possible to keep up the high-paced development, build our pipeline of business dialogues, and generate further validating data on the important mRNA platform, to make the most of our unique technology.

Ziccum Industrial position

Signing agreements straight away in 2023 with the best possible international partners was highly satisfying, getting firm attention from world-leading pharmaceutical corporations. These dominant players are leading the pharma race towards new vaccines and highly innovative RNA treatments.

The Ziccum Feasibility study for our Biotech partner was successfully completed at year end, with all parameters giving good results, and the all-important mRNA activity preserved on excellent levels. This is a perfect, broad validation of the applicability for Laminar Pace for fragile and valuable mRNA/LNP compositions. It confirms the vast possibility to enable new, better, more cost-efficient, and far more sustainable patient treatments thanks to LaminarPace.

The licensing business model gives the highest possible value for Ziccum taking LaminarPace to market, and the challenges of addressing demanding counterparts at strategic levels in large organizations, as well as selling the technology while still in development, have been overcome thanks to solid industry knowledge and outreach. We have received strong confirmation from world leaders on the wish for this model.

The Outlook 2024

It is very interesting to see how the pharmaceutical industry is evolving in its approach to the new mRNA platform. After the initial praise of all the possibilities opening with mRNA, post-pandemic, now the practical aspects are coming into keen focus for industry. At our recent participation at the European mRNA Summit, the thermostability and drug delivery limitations were addressed by numerous speakers – and we could present an efficient, modern way to overcome it, getting further recognition.

We are determined to secure the value of Ziccum as best feasible, to best serve the pharmaceutical industry, rewarding our existing owners, new investors and of course help the patients in need of a new treatment or better vaccine ultimately. We will be delighted to have your continued support for this exciting journey.

Lund, January 30, 2024

Ann Gidner



Invitation to subscribe for units in Ziccum

On 22 January 2024, the Board of Directors decided, based on authorization from the Annual General Meeting held on 24 May 2023, to carry out a new issue of a maximum of 1,534,015 units with preferential rights for the Company's shareholders. The subscription price in the Offering amounts to SEK 6.8 per unit, corresponding to SEK 6.8 per share.

Existing shareholders will receive one (1) unit right for each one (1) existing share held as of the record date of 29 January 2024. Nine (9) unit rights entitle to subscription of one (1) unit. One (1) unit consists of one (1) share and one (1) free warrant of series TO 5. The subscription period will last from 31 January 2024 to 14 February 2024. The Board of Directors is entitled to decide to extend the subscription period and the time for payment.

Through the Rights Issue, the share capital in the Company increases by a maximum of SEK 255 669.17, from SEK 2,404,752.17 to SEK 2,660,421.33 by issuing a maximum of 1,534,015 shares. The number of shares thus increases from 14,428,513 to a maximum of 15,962,528 shares.

Upon full exercise of all issued warrants of series TO 5, the share capital will increase by an additional SEK 255,669.17 and the number of shares by 1,534,015 shares. The Subscription Price per share shall correspond to the lowest of i) SEK 8 and ii) in the event that the Company resolves on a new issue of shares with deviation from the shareholders' pre-emption rights between 1 February 2024 and 31 August 2024, the subscription price of the most recently resolved such new share issue (subscription Price must not fall below quotient value of the share).

The Company will thus receive an additional maximum of SEK 12,3 million before issue costs.

The dilution effect amounts to approximately 9.6 per cent at a fully subscribed issue of units and an additional 8.8 per cent at a later fully subscribed issue of shares with the support of warrants of series TO 5.

The Rights Issue is carried out primarily to effectively secure working capital for continued business and technical development in the Company in a way that gives the Company's shareholders the opportunity to participate in the financing.

Terms and conditions

Pre-emption right to subscription

The right to subscribe for units is granted with pre-emption rights to the Company's shareholders. Each existing share held in the Company on the record date of 29 January 2024 entitles to one (1) unit right. Nine (9) unit rights entitle the holder to subscribe for one (1) unit at a subscription price of SEK 6.80 per unit, corresponding to SEK 6.80 per share. One unit contains one (1) share and one (1) warrant of series TO 5 free of charge. To the extent that units are not subscribed for with pre-emption rights, these shall be offered to shareholders and other investors who have submitted a request to subscribe for units in Ziccum.

Issue amount

The Rights Issue comprises a maximum of 1,534,015 new units issued at a price of SEK 6.80 per unit, corresponding to SEK 6.80 per share, which means that the Company, upon full subscription, will receive approximately MSEK 10.4 before issue costs through the Rights Issue.

Unit rights (UR)

The right to subscribe for units is exercised by means of unit rights. For each share in Ziccum held on the record date, one (1) unit right is received. Nine (9) unit rights entitle the holder to subscribe for one (1) unit. One (1) unit contains one (1) share and one (1) free warrant of series TO 5.

Record date

The record date at Euroclear for determining who is entitled to receive unit rights in the Rights Issue is 29 January 2024. The shares in Ziccum are traded including the right to receive unit rights to and including 25 January 2024. The shares are traded excluding the right to receive unit rights in the Rights Issue from and including 26 January 2024.

Subscription price

The subscription price per unit amounts to SEK 6.80, corresponding to SEK 6.80 per share. No brokerage fee is paid.

The free-of-charge warrant of series TO 5 entitles the holder to subscribe for one (1) new share for each one (1) warrant of series TO 5 held during the period from and including 2 September 2024 to and including 13 September 2024. The subscription price per share shall correspond to the lowest of i) SEK 8 and ii) in the event that the Company resolves on a new issue of Shares with deviation from the shareholders' pre-emption rights between 1 February 2024 and 31 August 2024, the subscription price in the most recently resolved such new issue. However, the subscription price may never be less than the quota value of the share at the time of application for subscription.

Subscription period

Application for subscription of units through exercise of unit rights shall be made by simultaneous cash payment during the period 31 January 2024 to and including 14 February 2024. Please note that unit rights that are not exercised become invalid after the end of the subscription period and thus lose their value. Unexercised unit rights will be deregistered from each shareholder's VP account without notification from

Euroclear. In order to prevent the loss of value of the unit rights, they must either be exercised for subscription of units no later than 14 February 2024 or sold no later than 9 February 2024. Please note that the procedure for non-exercised unit rights may vary depending on the trustee and in some cases automatic sale of unit rights takes place if the trustee is not contacted in good time before the end of the subscription period. For more information about each nominee's treatment of unexercised unit rights, the nominee should be contacted directly.

The Board of Directors of the Company is entitled to extend the time during which application for subscription and payment can be made. Any extension of the subscription period will be announced through a press release no later than 14 February 2024.

Trading in unit rights (UR)

Trading in unit rights takes place on Nasdaq First North Growth Market during the period 31 January 2024 to and including 9 February 2024. A bank or other nominee handles the mediation of the purchase or sale of unit rights. Those who wish to buy or sell unit rights should therefore contact their bank or other nominee. Such trading is normally subject to a brokerage fee.

Unexercised unit rights

Unit rights that have not been sold by 9 February 2024 or used for subscription of units by 14 February 2024, will be deleted from all VP accounts without compensation. No special notification will be made when unit rights are deregistered.

Issue report and application forms for subscription with unit rights

Directly registered shareholders (holdings in a securities account)

The shareholders or representatives of shareholders who on the record date 29 January 2024 are registered in the share register kept by Euroclear on behalf of the Company will receive a pre-printed issue statement with attached payment slip, teaser and application form for subscription without unit rights. The complete memorandum will be available on the Company's website www.ziccum.com and Aqurat's website www.aqurat.se for download. Those who are listed in the list of pledge holders etc. in connection with the share register will not receive any information but will be notified separately. The registration of unit rights on the holder's securities account takes place without special notification from Euroclear.

Nominee-registered shareholders (custody account)

Shareholders whose holdings of shares in the Company are nominee-registered with a bank or other nominee will not receive an issue statement from Euroclear, but a teaser containing a summary of the terms and conditions of the Rights Issue and reference to the memorandum will be sent out. Subscription and payment shall be made in accordance with instructions from the respective bank or nominee.

Subscription and payment of units with primary pre-emption rights, directly registered shareholders

Subscription of units with unit rights can be made by cash payment during the period from 31 January 2024 to and including 14 February 2024. Please note that it may take up to three banking days for the payment to reach the recipient's account. Subscription and payment shall be made in accordance with one of the two options below:

1. PRE-PRINTED PAYMENT SLIP FROM EUROCLEAR

In the event that all unit rights received on the record date are exercised for subscription of shares and warrants, the pre-printed payment slip from Euroclear shall be used as a basis for notification of subscription by payment. The special application form shall thus not be used. No additions or changes may be made to the text pre-printed on the payment slip. The application is binding.

2. SPECIAL APPLICATION FORM

In the event that a different number of unit rights is exercised than that stated on the pre-printed payment slip from Euroclear, the special application form shall be used. Application for subscription by payment shall be made in accordance with the instructions stated on the special application form. The pre-printed payment slip from Euroclear shall therefore not be used. A special application form can be ordered from Aqurat by telephone or e-mail.

The special application form must be received by Aqurat no later than 15.00 on 14 February 2024. Any application form sent by post should therefore be sent well in advance of the last day of subscription. Only one application form per person or legal entity will be considered. If more than one application form is submitted, only the last one received will be considered. Incomplete or incorrectly completed separate application forms may be disregarded. The subscription is binding.

Completed special application form should be sent or handed to:

Aqurat Fondkommission AB

Subject: Ziccum

Box 7461 103 92 Stockholm

Tfn: 08-684 05 800

Fax: +46 8 684 05 801

Email: info@aqurat.se (scanned application form)

Shareholders residing abroad

Shareholders residing in certain unauthorized jurisdictions

The offer to subscribe for units in Ziccum in accordance with the terms of this Memorandum is not directed to investors domiciled in the United States, Australia, Hong Kong, Japan, Canada, New Zealand, Switzerland, Singapore, South Africa, South Korea, Russia, Belarus or in any other country where participation requires additional prospectuses, registration or other measures other than those required by Swedish law.

Consequently, this Memorandum, application forms and other documents related to the Rights Issue may not be distributed in or to the above-mentioned countries or other jurisdictions where such distribution or participation in the Rights Issue would require additional prospectuses, registration or other regulatory approvals.

No paid-up units, shares or other securities issued by Ziccum have been or will be registered under the United States Securities Act of 1933, or under the securities laws of any state of the United States or any province of Canada. Therefore, no paid units, shares or other securities issued by Ziccum may be transferred or offered for sale in the United States or Canada other than in such exceptional cases that do not require registration. Applications for subscription of units in violation of the above may be considered invalid and disregarded.

For this reason, shareholders who have their shares directly registered on a securities account with registered addresses in the United States, Australia, Hong Kong, Japan, Canada, New Zealand, Switzerland, Singapore, South Africa, South Korea, Russia, Belarus or any other jurisdiction where participation would require additional prospectuses, registration or other regulatory approvals will not receive any unit rights on their respective securities accounts. The unit rights that would otherwise have been delivered to these shareholders will be sold and the sales proceeds, less costs, will be paid to such shareholders. However, amounts of less than SEK 100 will not be paid out.

In the United Kingdom, this document, and any other material relating to the securities referred to herein, is only being distributed and directed to, and any investment or investment activity to which this document relates is available only to, and will be engaged in only with, "qualified investors" who are (i) persons having professional experience in matters relating to investments and who fall within the definition of "investment professionals" in Article 19(5) of the Order; or (ii) high net worth individuals referred to in Article 49(2)(a) to (d) of the Order.

Directly registered shareholders residing abroad who are entitled to subscribe for shares

Directly registered shareholders residing outside Sweden (however, not shareholders residing in the United States, Australia, Hong Kong, Japan, Canada, New Zealand, Switzerland, Singapore, South Africa, South Korea, Russia or Belarus) who are entitled to subscribe for units in the Rights Issue and who do not have access to a Swedish internet bank can contact Aqurat by telephone as described above for information on subscription and payment.

Subscription without pre-emption rights, directly registered shareholders

Subscription of units without pre-emption rights shall take place during the period 31 January 2024 to and including 14 February 2024.

Please note that shareholders whose holdings are nominee-registered must notify their nominee of subscription without pre-emption rights in accordance with the nominee's routines (this is to ensure that subscription can take place if the custody account is linked to an endowment insurance or an investment savings account (ISK) and to be able to invoke subsidiary pre-emption rights).

For directly registered shareholders, application for subscription of units without pre-emption rights shall be made by completing, signing and sending the application form for subscription without pre-emption rights to Aqurat at the address above. No payment shall be made in connection with the application, but shall be made in accordance with what is stated below.

The application form for subscription without pre-emption rights shall be received by Aqurat no later than 15.00 on 14 February 2024. It is only permitted to submit one (1) application form for subscription without pre-emption rights. In the event that more than one application form is submitted, only the last one received will be considered. Other application forms will thus be disregarded. The application is binding.

When subscribing for units without pre-emption rights and at other corporate events where participation is voluntary and the subscriber has a choice of participation, Aqurat must collect information from you as a subscriber about citizenship and identification codes. This follows from the regulatory framework for securities trading that entered into force on 3 January 2018 (MiFiD II 2014/65/EU). For natural persons, the

national ID (NID) must be obtained if the person has a citizenship other than Swedish or additional citizenship in addition to Swedish citizenship. The NID differs from country to country and corresponds to a national identification code for the country. For legal entities (companies), Aqurat must obtain an LEI (Legal Entity Identifier). Aqurat may be prevented from executing the transaction if not all mandatory information is provided. By signing the application form in the Rights Issue, it is confirmed that the acquirer has read the Information Memorandum and understood the risks associated with an investment in the financial instruments.

Allocation principles for subscription without pre-emption rights

In the event that not all units are subscribed for with pre-emption rights as described above, the Board of Directors shall decide on allotment within the framework of the maximum amount of the Rights Issue. Allocation is made on the following basis:

- i) Firstly, to those who have subscribed for units with unit rights and who wish to subscribe for additional units (regardless of whether they were shareholders on the record date or not), pro rata their subscription with unit rights.
- ii) Secondly, to others who have notified interest in subscribing for units without unit rights (and who are not covered by item i) above), pro rata their notified interest.

To the extent that allotment at any stage above cannot be made pro rata, allotment shall be made by drawing lots.

Notice of allotment upon subscription without pre-emption rights

Notice of any allotment of units subscribed for without pre-emption rights is given by sending an allotment notice in the form of a contract note. Payment shall be made according to the notice on the contract note, but no later than three days after the contract note has been sent. No notification is given to those who have not received an allocation. Units not paid in time may be transferred to another party. Should the sales price in such a transfer be lower than the price according to this offer, the person who originally received the allocation of these securities may have to pay all or part of the difference.

Paid subscribed unit (BTU)

Subscription by payment is registered with Euroclear as soon as this can be done, which normally means a few banking days after payment. Thereafter, the subscriber receives a VP notice confirming that the BTU has been registered in the subscriber's VP account. Custodian customers receive BTUs and information from the respective bank or nominee according to their routines.

Trading with paid subscribed unit (BTU)

Trading in BTUs will take place on Nasdaq First North Growth Market from 31 January 2024 until the Swedish Companies Registration Office has registered the new issue. This registration is expected to take place around week 9, 2024.

Delivery of subscribed units

BTU will be replaced by shares and warrants of series TO 5 as soon as the Rights Issue has been registered by the Swedish Companies Registration Office. After this registration, BTU will be booked out from the

respective VP account and replaced by shares and warrants of series TO 5 without special notification. Such rebooking is expected to take place week 10, 2024. The newly issued shares and warrants of series TO 5 will be admitted to trading on Nasdaq First North Growth Market in connection with the rebooking.

Conditions for the completion of the offer

The Board of Directors of Ziccum is not entitled to cancel, withdraw or temporarily withdraw the offer to subscribe for units in the Company in accordance with the terms of this Memorandum. The Board of Directors of Ziccum is entitled to extend one or more times the time during which application for subscription and payment can be made. Any extension of the subscription period will be announced through a press release.

Publication of the outcome of the rights issue

As soon as possible after the end of the subscription period, the Company will publish the outcome of the Rights Issue. Publication will be made through a press release.

Applicable legislation

The shares and warrants are issued under the Swedish Companies Act (2005:551) and are governed by Swedish law.

Right to dividends

The new shares carry a right to dividend for the first time on the record date for dividend that occurs immediately after the new shares have been registered.

Share register

The company is a CSD company affiliated with Euroclear Sweden AB. The Company's share register with information about shareholders is managed and recorded by Euroclear Sweden AB with the address Euroclear Sweden AB, Box 191, 101 23 Stockholm.

Shareholders' rights

Shareholders' rights regarding dividend, voting rights, pre-emption rights when subscribing for new shares, etc. are governed by the Company's Articles of Association, which are available.

Information on the processing of personal data

Those who subscribe for units in the Rights Issue will provide information to Aqurat. Personal data submitted to Aqurat will be processed in computer systems to the extent necessary to provide services and administer customer arrangements. Personal data obtained from someone other than the customer to whom the processing relates may also be processed. Personal data may also be processed in the data systems of companies or organizations with which Aqurat cooperates. Information on the processing of personal data is provided by Aqurat. Aqurat also receives requests for correction of personal data. Address information may be obtained by Aqurat through an automatic process at Euroclear.

Other information

In the event that an excessive amount has been paid by a subscriber for subscribed units, Aqurat will arrange for repayment of the excess amount. In such case, Aqurat will contact the subscriber for

information about a bank account to which Aqurat can repay the amount. No interest will be paid on the excess amount. A subscription of units, with or without support of unit rights, is irrevocable and the subscriber cannot cancel or modify a subscription of units.

Incomplete or incorrectly completed application forms may be disregarded. If the subscription proceeds are paid too late, are insufficient or are paid incorrectly, the application for subscription may be disregarded or subscription may be made with a lower amount. In this case, paid liquidity that has not been utilized will be refunded.

Units that have not been paid in time may be transferred to another party. Should the sales price at such transfer be lower than the price according to this offer, the person who originally received the allocation of these securities may have to pay all or part of the difference.



Market overview and business description

Market opportunity: A great unmet industry need and its potential solution

Biologics and vaccines are generally very delicate and difficult to handle, store and administer, especially so the very fragile mRNA in LNP formulation, requiring very gentle handling and constant cryogenic management all the way from production to patient. All existing mRNA vaccines require unbroken cryogenic storage and handling at -80°C, all the way from production to patient. This very demanding handling, and the severe carbon dioxide consequences, were all demonstrated during the Covid-19 pandemic, due to the pressing need for urgent vaccination across the globe. However, to enable biologics and high-performing mRNA technology to be available for new indications, to meet far more patient needs, these limitations need to be addressed.

LaminarPace transforms delicate liquid biologics into stable, robust dry powders that are easily handled and require no cryogenic storage at all. The mRNA handling can be drastically less expensive, and the carbon footprint of a vaccine campaign can be reduced by over 90%, which will be a tremendous win for sustainability and the planet. Furthermore, the ability for room temperature or normal refrigerator temperature cold storage could enable mRNA and vaccine treatments to better reach every corner of the globe and furthermore, the powder form enables new delivery options.

Strategic focus on vaccines

LaminarPace treatment has been performed successfully with all biopharmaceutical modalities tested this far: proteins, peptides, enzymes, antibodies, and a range of vaccine types. This gives very strong confidence in the applicability of the technology.

As a strategic focus, Ziccum chose in 2022 to focus on three key platforms, where the unmet patient need is very large, the commercial scale requirements are a good match and the modalities are very high value, creating high value market segments for LaminarPace. In general, the target is projects in development stage - preclinical and clinical stage - where the production method still is to be established, and where the key benefits and savings of LaminarPace treatment can be fully taken advantage of.

The three strategic platforms are:

- mRNA/LNP vaccine and therapeutics platform
- Viral vector vaccine platform
- Adjuvanted vaccine platform

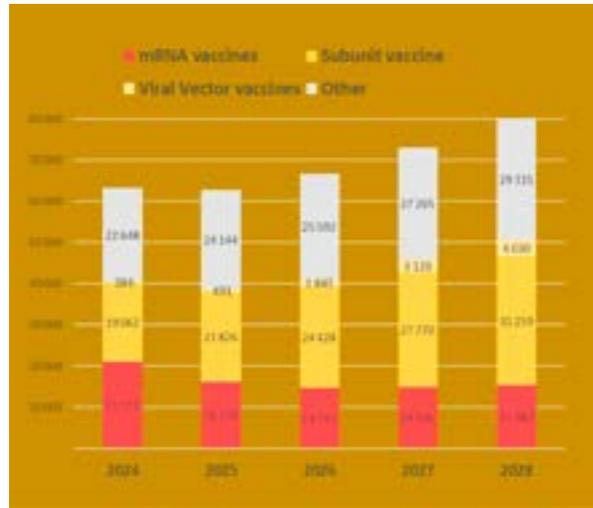
This gives two different market perspectives – one for vaccines on these three platforms, one for mRNA/LNP assets.

The vaccine market perspective

A conservative estimate of the drying licensing market for Ziccum's three target vaccine platforms corresponds to 400 to 1000 million US dollars per year ahead, from 2024 to 2028. This is based on the conservative estimate of receiving 1-2% royalties on the total value of vaccine sales, for the three strategic

vaccine platforms with total vaccine product sales of 40-50 billion US dollars in the years ahead. This estimate is based on Western markets only and does not include China or India, due to the difficulty of finding appropriate data. As the need for thermostable vaccines could be seen as very relevant also in these markets, which would add significant numbers to a total market potential, the estimate is very conservative.

The field of vaccine development has undergone a significant change in recent years. From being a low margin and lengthy development cycle activity, the development of Covid-19 vaccines in record time completely changed the landscape. The pandemic created an urgent awareness of the importance of vaccines, not only within research organisations and healthcare authorities, but across every segment of the industry and throughout the public, globally. The market for vaccine manufacturing was accelerated and transformed. The industry is now investing significant efforts in vaccine development since 2021, and the interest for innovative technology has increased greatly – both for improving Western market products and to enable improved vaccine access for the whole world.



Annual vaccine product sales in MUSD
 Estimates based on Global Data Intelligence platform. Forecast includes only Western markets.

The mRNA market perspective – a new era

Due to the pressing need for vaccines during the Covid-19 pandemic, the pharmaceutical industry found completely new ways of working, and unprecedented development of vaccines was achieved in record time, using the novel mRNA platform - enabled by the new delivery technology of lipid nanoparticles, LNPs. The historic success of the mRNA/LNP platform in Covid-19 has accelerated investment and innovation in the field enormously.

Based on this perfect opportunity to apply LaminarPace for a very large, unmet industry need, Ziccum took the decision in late 2022 to focus its main efforts addressing the mRNA/LNP field. An intense period of data generation on the mRNA/LNP platform took off.



“The growth in RNA and mRNA therapeutics is the largest and most dramatic development I have seen in my 25 years in the industry. It’s very exciting to be part of it”

- ANN GIDNER, CEO Ziccum

A wide range of companies are now racing to develop RNA projects. This includes existing big pharma and vaccine corporations as well as many types of biotech pioneers. A majority of today's largest pharma corporations (such as Sanofi, Pfizer, J&J, Novo Nordisk and GSK) have one or more mRNA-based projects in their pipeline, at various stages of development.

Just the mRNA portion of this total RNA market is projected to reach 59 billion US dollars by 2031, growing at a CAGR of 13.3% from 36.5 million US dollars in 2022.



Statista Research, June 08, 2022.
The mRNA Vaccines & Therapeutics Market is projected to reach \$59 billion by 2031.

The number of various RNA treatments in development and the overall market share continues to grow dramatically. Yet issues remain; Liquid biologics are delicate and difficult to handle, store and administer, especially so the very fragile mRNA in LNP formulation, requiring very gentle handling and constant cryogenic management all the way from production to patient. Solving these shortcomings in product stability and thermostability, and the limitations in delivery forms, would allow for RNA to become a cornerstone treatment across new pharmaceutical indications, world-wide. A technology that could enable new delivery forms and more stable formulations would play a valuable role in realizing the enormous potential of this market of novel RNA treatments.



Bioactive, thermostable formulated and dried using the LaminarPace methodology.

mRNA/LNP - FACTS IN FOCUS

Messenger-RNA and Lipid nanoparticle delivery

Why has mRNA/LNP advanced so dramatically, and what are the platform's unique benefits?

Messenger-RNA: Genetic coding for protein synthesis within the body

With mRNA, the genetic code of a treatment, a vaccine immunogen or a therapeutic molecule, is given to the patient and the "drug molecule" is generated within the patient's own body. This is very different to standard therapies, where the drug molecule must be chemically synthesized or expressed in biotechnology production, with a lengthy process over many years of making it work technically, practically and regulatory-wise.

Lipid nanoparticles: the key enabler

Nanoparticle delivery using lipid nanoparticles (LNPs) was the key to enable mRNA to be developed as an effective therapy. LNPs envelope and protect the delicate mRNA protein from degradation in the human body. LNPs make excellent delivery agents due to their ability to target and bind to specific receptors on cell membranes. However, the LNP particles are indeed extremely fragile structures, where the lipids constituting the particle membranes are associated via hydrogen bonds – hence the LNPs normally can only remain intact when kept in water solution.

mRNA Unique benefits

- **Safety:** The mechanism of the mRNA/LNP platform, where the RNA is coding for a specific drug effect inside the patient body, makes it a treatment with fewer side effects and higher safety.
- **New indications:** With the mRNA mechanism, it is possible to address so-called undruggable genes, for which, until now, therapies could not be developed. mRNA can be adapted to a diverse and novel range of conditions including cancer vaccines and personalized vaccines. Also, mRNA works well in combination with existing important modalities such as cytostatics.
- **Speed:** mRNA offers a shorter development path. While traditional vaccines take 10-15 years to develop, the Covid-19 vaccine could be developed in much shorter time, and new mRNA projects typically can be taken forward very efficiently.
- **Targeting:** there is development of specific nanoparticle formulations enabling drug targeting for mRNA; to make the mRNA reach certain organs in the body. This is a next level of development currently in early stages.

mRNA LIMITATIONS: Thermo-instability and severe fragility, with limited delivery options

The thermostability issue is significant. All existing mRNA vaccines require unbroken cryogenic storage and handling at -80°C, all the way from production to patient. This very demanding handling, and the severe consequences with increased carbon dioxide emissions, were all accepted during the Covid-19 pandemic due to the pressing need for urgent vaccination across the globe. However, to enable the high performing mRNA technology to be available for new indications, to meet far more patient needs, these limitations need to be addressed.

The stability issue means that mRNA preparations in liquid are susceptible to damage from shaking or sudden movements in handling. When reconstituted from other drying methods, the product is not stable – it foams, aggregates and is difficult to handle.

Regarding delivery options, the limitation to liquid solution mRNA with a large molecule formulation in liquid nanoparticles, means that injection is the only option for patient administration until now. This is typically the least desirable form for patients, where oral administration is considered easier and less unpleasant. Also, drug injections often require trained healthcare staff intervention.

At mRNA scientific and policy events, solutions for thermostability, stability and new delivery forms are widely discussed. Many decision makers see solving these as key to realizing the platform's potential as a cornerstone treatment across a broad range of therapies.



Ziccum CEO Ann Gidner addresses industry leaders at Europe's largest mRNA event - the mRNA Therapeutics Summit 2024 in Berlin

The solution: Laminarpace

LaminarPace treatment has been performed successfully with mRNA/LNP, proteins, peptides, enzymes, antibodies and a range of vaccine types. The LaminarPace advantages bring extensive value to the field of biologics in general and of mRNA in particular.

Thermostability – from cryogenic handling to room temperature stability

LaminarPace transforms delicate liquid biologics into stable, robust dry powders that are easily handled and require no cryogenic storage at all. The mRNA handling can be drastically less expensive, and the carbon footprint of a vaccine campaign can be reduced by over 90%, which will be a tremendous win for sustainability and the planet. Furthermore, the ability for room temperature or normal refrigerator temperature cold storage could enable for mRNA and vaccine treatments to better reach every corner of the globe.



Stability – creating robust, easy-to use dry powders

LaminarPace produces a free flowing, perfectly amorphous state, dry powder with well defined, tunable particle size properties. It is very easy to handle, unlike existing mRNA products, and can easily be reconstituted (dissolved back to liquid) in a few seconds, without healthcare training, with no foaming or precipitation. Already this apparently simple improvement is a great win, according to business dialogues and industry experts.

Particle engineering - enabling new delivery options

LaminarPace delivers unique capabilities for novel administration routes. The LaminarPace treatment results in particles that are well dispersed and well-defined – making them ideal for inhalation, dissolution; and provide powder in forms suitable for novel drug delivery techniques, such as micro-array patches.

The LaminarPace invention was originally developed to dry biologic liquid solutions into inhalable powders for inhalation testing, hence its advanced particle engineering capabilities – with well-defined morphology, particle size and particle size distribution.

The possibility of inhaled biological drugs is highly interesting to industry to address several concerns regarding injections. Oral administration is considered easier and preferable for patients, but typically, the large, fragile biological compounds in biopharmaceuticals can only be administered in liquid form via injection. Inhaled versions of mRNA/LNP in particular are of great interest, putting this new powerful

modality into a well-known administration form, and it would be a very significant innovation step if it can be achieved.

Ziccum currently runs an academic collaboration with the Department of Pharmacy, University of Copenhagen (UCPH). The objective is engineering solid dose forms of mRNA/LNP vaccines using LaminarPace. A major international Key opinion leader (KOL) in vaccine design & drug delivery, Professor Camilla Foged, is the responsible person at UCPH. The study includes in-vivo mice studies comparing mRNA activity for liquid versus solid dose formulations and will run during 2024.



Important mRNA results

Ziccum has recently (during 2023 and early 2024) reported positive data in both internal and external mRNA/LNP studies.

External mRNA/LNP feasibility study

Results reported on January 10th 2024, from a Ziccum feasibility study in collaboration with a leading Biotech corporation in the mRNA field, confirmed LaminarPace's ability to turn mRNA/LNP liquid biological material into a thermostable dry powder, whilst retaining excellent mRNA activity. Results were found positive in all key metrics.

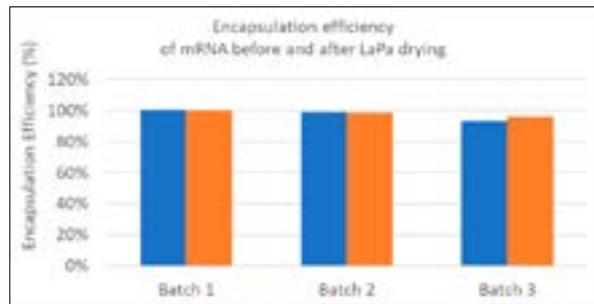
- **mRNA activity:** the dry powder material produced in the study demonstrated excellent mRNA activity, when reconstituted and tested in in-vitro cell studies. This is necessary for the resulting mRNA treatment to have its effect, for vaccine immunisation or therapeutic effect.
- **Encapsulation efficiency:** LaminarPace treatment resulted in well-preserved mRNA content in LNP particles with adequate encapsulation efficiency. This is an important metric in the production economics of mRNA/LNP, preserving the very expensive mRNA materials.
- **Particle preservation and distribution:** LaminarPace treatment resulted in well preserved lipid nanoparticles with good particle size and preserved size distribution. This is important for having a final drug composition which can be administered to patients.
- **Product reconstitution:** the assessment confirmed that LaminarPace-treated material can be reconstituted (dissolved back into liquid) quickly and smoothly, with no foaming, precipitation, or other practical issues.

Actual data and graphs from the external feasibility study are under a non-disclosure agreement and can therefore not be presented here.

Internal mRNA study – CRO-validated results

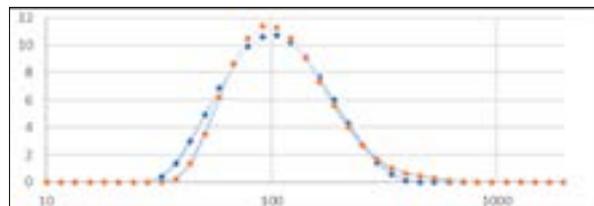
A vital part of Ziccum's continuous development work is to generate data on the key parameters and metrics presented above. This on-going work also includes studies performed at external research laboratories (CROs), engaged by Ziccum for validation. On the 23 October 2023 Ziccum released a press release confirming "positive results from external validation of mRNA activity after LaminarPace treatment". The results obtained in collaboration with CRO Truly Labs confirmed previous internally generated data on encapsulation and particle properties for mRNA/LNP, plus confirmed mRNA activity after LaminarPace drying and reconstitution to liquid. A selection of the results are presented here:

Encapsulation efficiency – preserving all the valuable mRNA



■ Before drying ■ After drying and reconstitution

Particle size distribution – avoiding challenging aggregation or particle fusion



■ Before drying ■ After drying and reconstitution

mRNA activity – maintaining the actual drug or vaccine effect



Technology and intellectual property

The ambient temperature advantage of the mass transfer principle

There has long been an unmet need for a drying methodology for biopharmaceuticals that avoids extreme temperatures. Unlike other drying technologies, LaminarPace is built on the principle of mass transfer, not heat transfer. This enables the avoidance of heat stress and heat degradation entirely in the drying process, preserving the delicate biological formulations intact. Furthermore, the way it has been designed, a number of other stress factors can also be avoided.

How mass transfer drying works

At the heart of LaminarPace is a central drying column with a counter current nitrogen flow. Test material is nebulized and introduced into the system in a laminar flow from the top of the column, while the counter-current, turbulent nitrogen flow gently removes the solvent molecules from the material, typically water. The process taking place is depicted in the illustration.

Intellectual property: Patents and know-how

Robust intellectual property (IP) is at the heart of Ziccum's technology platform and licensing business model. Ziccum's IP strategy aims to protect the Company's innovations and enable it to execute confidently on its business model.

In 2023, Ziccum filed three new key patent applications that provide multi-layered coverage designed to protect (1) Equipment innovations and configurations constituting the unique LaminarPace equipment, (2) key operational parameters, how to run the process for optimal results and (3) formulation parameters for the product to be treated, optimizing the unique mass transfer drying outcome. The patent applications are all supported by the successful data generation from recent internal and external research and development work and Ziccum is working with a leading Scandinavian patent bureau.

In addition to patents and patent applications, Ziccum maintains critical know-how in how to best apply the LaminarPace technology, in general and for various modalities including mRNA/LNP, viral vector vaccines, adjuvanted vaccines, proteins, peptides, enzymes and more



Illustration LaminarPace drying process of a single droplet of biomolecules in solution.



Competitive overview

Biopharmaceutical drying into the future

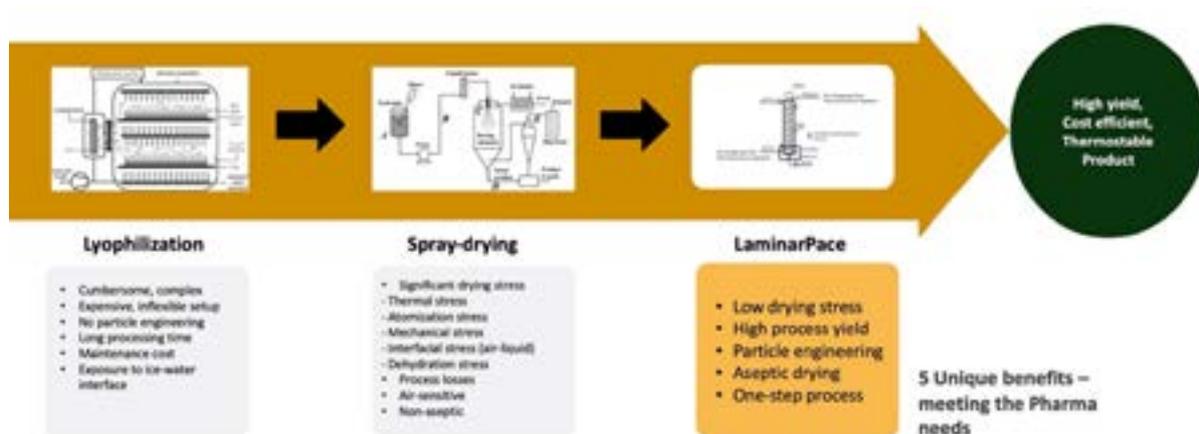
Ziccum is convinced the LaminarPace technology has a key role to play as an industrial scale drying method in the pharmaceutical industry producing ever more biologics. LaminarPace introduces key benefits compared to today's main technologies for drying pharmaceuticals in general and biologics in particular.

Freeze-drying: the primary legacy drying technology in pharmaceutical industry is lyophilization, also called freeze-drying. It consists of putting trays with liquid material into a large freezer, at very low temperature, and then applying vacuum. Whilst it can be applied to some biologics, it is a challenging process to control – products are simply left in the freezer – and it is inflexible with long processing times, and associated with significant cost mainly due to processing time. Many biologics do not survive the harsh freezing process and cannot be treated.

Spray-drying: overall in pharmaceutical industry the manufacturing has progressed using the more robust method of conventional spray-drying at elevated temperatures above 50°C. Whilst spray-drying offers a more controllable series of chemical engineering steps, it also involves very high stress levels - thermal stress, atomization stress, mechanical stress, interfacial stress and dehydration stress, and therefore is difficult to apply for biological entities. Typically, the process only works for chemically synthesized pharmaceuticals (so called small molecules).

LaminarPace drying: LaminarPace drying is using a mass transfer principle and operates at room temperature: this is a completely different mechanism from freeze-drying or spray-drying, which both rely on heat transfer at extreme temperatures.

Laminar Pace is uniquely a low-stress methodology. It is especially attractive since it offers a combination of novel, innovative technology, opening up new possibilities, and benefits pointing towards good operational costs as well as reasonable investment cost. Regarding competitive technology development, there is a



handful of companies pursuing development of pharmaceutical drying technology. A consultant study of November 2022 performed by Destum Partners, USA, concluded that these efforts typically address adaptations or combinations of the old technologies – but no other innovative, novel technology in development was found. Competing efforts are found rather in special LNP particle development, aiming at lyophilization-resistant formulations, with varying success according to industry updates.

The road ahead: Development plan and ambition

With a robust and proven business model, and a comprehensive technology development Masterplan, Ziccum is in a strong strategic position to take the development and achievements of the preceding 18 months forward.

Business development, with excellent recognition in the international industry

Since May 2022, Ziccum has applied a structured business development methodology. A clear plan for communications and event participation has been established and executed upon. The base principle is good pipeline management, generating a pipeline of relevant industry dialogues to take forward into feasibility studies. Considering the lengthy development times and high attrition rates in pharmaceutical development, it is important to pursue many dialogues to land enough projects, to ultimately succeed in striking licensing deals.

The key events Ziccum attends are (a) licensing partnering conferences, where pharmaceutical industry innovators meet with licensors, discussing partnering, in meetings spread over the calendar year for optimal follow-up opportunities, (b) scientific conferences, focusing on vaccine development and on mRNA advancements. Additionally, Ziccum is invited to (c) industry CEO summits, where high-level decision-makers can be approached, which has contributed to the successful Ziccum recognition initiated in the international industry, building on existing, valuable personal networks.

The continuous generation of trial data for LaminarPace achievements is an important factor for successful business dialogues, to first spark interest and then proceed to substantial dialogues. The entire field of pharmaceutical development is typically pursued in strict confidentiality, and all dialogues are of a confidential nature.

Long term financing

As technology development in pharmaceutical industry is a long-term endeavor, finalizing a high technology application in every aspect and bringing it to industrial application stage, addressing all the regulatory requirements, Ziccum is foreseeing further financing needs before reaching break-even. The Company will therefore continue to explore financing options over time. The current financing agreement with GCF is a result of the growing investor interest in the US where Ziccum's novel, groundbreaking technology has impelled an increase in interest from potential long-term investors.

Technology development and scale-out

Ziccum has always been clear that a prerequisite for being an attractive licensing partner is to be able to describe an industrial version of LaminarPace suitable for commercial scale and GMP production. Ziccum runs two projects progressing this crucial development.

1. ZICCUM MASTERPLAN

The LaminarPace Masterplan is the overall internal LaminarPace technology development project, which develops, refines and optimizes LaminarPace capabilities. The plan outlines all the steps ahead to take the LaminarPace technology forward to the market, i.e. to patient ultimately. The plan includes technology development with component design, creating unique LaminarPace components with strong IP protection.

Furthermore, it includes trial run programs, with a selected Ziccum mRNA/LNP Model case, to generate relevant data both to attract industrial partners, and to adjust and tune the LaminarPace performance.

These trials include the actual formulation and drying tests with sophisticated design of experiments (DoE) methodology, as well as the subsequent analytical testing, such as mRNA activity testing in cell-based assays, so called in-vitro testing, in Ziccum's internal cell laboratory.

Along the Masterplan path, there are regulatory milestones to be met. Ziccum is working to ensure excellent quality assurance and good understanding of the regulatory demands for the technology to be implemented, and significant progress in this field has been achieved during the last 18 months with implementation of standard operating procedures and the recruitment of a Quality Specialist.

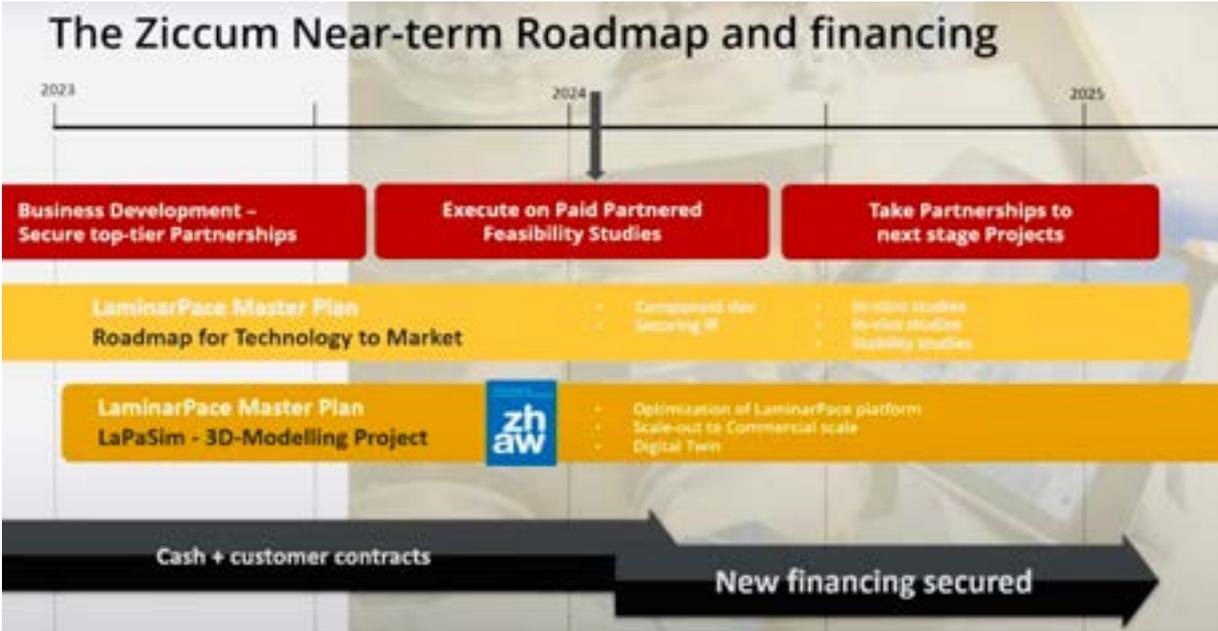
The trial results from the Masterplan as well as from partnered trials are guiding the decision-making on how to best develop the technology further, resulting in a market relevant LaminaPace technology, suitable for commercial scale and GMP production in industry.

2. LAPASIM: A 3D-MODELLING PROGRAM TO ACCELERATE INDUSTRIAL APPLICABILITY

LaPaSim, LaminaPace Simulation, is the project run in partnership with the ICP Institute of Computational Physics team at the Zurich University of Applied Science's School of Engineering (ZHAW). The project aims to accelerate LaminaPace's industrial development and scaleout as a unique unit of pharmaceutical production, realizing the technology optimisation and scale-out in a shorter time frame than only wet trials in lab and pilot trials would enable.

The project will also result in a three-dimensional modelling tool, a so-called digital twin. This tool can be applied for business dialogues, for further LaminaPace development and thirdly be offered to partners in the technology transfer of LaminaPace. It will enable partner dialogues regarding the LaminaPace performance regarding temperatures, volumes and substance output, all major drivers for industrial partnership.

Both projects will be valuable guides and enablers of tech transfer and integration of LaminaPace into existing pharmaceutical production during licensing agreement negotiations and beyond.



Board of directors and senior management

Board of Directors

According to Ziccum's Articles of Association, the Board of Directors shall consist of a minimum of 4 and a maximum of 8 directors without deputies. The Company's Board currently consists of 4 Board members without deputies. The Board has its seat in Lund, Sweden. The Board members are elected for the period until the end of the Annual General Meeting in 2024.

The list below describes the Company's Board of Directors as of the date of the Memorandum and the Board members' relevant experience in corporate management issues, information on ongoing significant assignments outside the Company and holdings of shares or options in the Company. Share or options/warrants holdings include own and/or related parties' holdings as of the date of the Memorandum.



Fredrik Sjövall, Chairman

Experience: Fredrik has 20 years' experience in senior management and executive positions across the life science industry, from medical technology to pharmaceuticals. As the CEO of Inhalation Sciences, he played a pivotal role in Ziccum's original spinout from the company and the emergence of LaminarPace as a standalone technology. He has also been CEO of Hemcheck, Lipopeptide and PharmaSurgics.

Born: 1980.

Appointed: 5 April 2017.

Qualifications: M.Sc. Automation Engineering, Master's Degree in Business Development. Independent of Ziccum and its senior management. Independent of major shareholders of Ziccum.

Current roles: Fredrik is currently Chairman at public companies Lipidor and Monivent. He is also Chairman of Emollivet and Board member of Phargentis.

Holdings: 131,447 shares and 42,200 options.



Andreas Petttersson Rohman

Experience: As the VP for Corporate Finance and IR at Northvolt, Sweden's paradigm-shifting lithium-ion battery company for electric vehicles, Andreas is highly experienced with strategic equity financing and industrial innovation. Northvolt has a new large-scale manufacturing plant in the north of the country and further plants planned in Europe and the US. Andreas has extensive experience of strategic development, debt and equity financing. His previous roles include positions at Goldman Sachs International in London, within the Investment Banking Division.

Born: 1980

Appointed: April 27 2021

Qualifications: MSc. and BSc. Industrial Engineering and Management, Chalmers University of Technology. MSc. Advanced Finance, School of Business, Economics and Law, Gothenburg University. BSc National Economics, School of Business, Economics and Law, Gothenburg University.

Holdings: 39,333 shares and 42,200 options.



Mikaela Bruhammar

Experience: Mikaela has 20 years' experience including senior roles within global vaccine development, at a range of life-science multinationals. From 2012 to 2015 she was the Global Head of Astra Zeneca's Vaccine Franchise, responsible for vaccine rollouts in major indications. Previous to that, from 1999 - 2008 she held various commercial roles with MSD Sweden AB, joining Astra Zeneca in 2008. From 2015-2019 she was VP of Nordic-Baltic Business Unit in Respiratory, Inflammation and Autoimmune disease (RIA) and from Aug 2019 until Aug 2023 she worked at IQVIA managing Real World Evidence Solutions, operating as VP for EMEA RW Partnerships.

Born: 1976

Appointed: 20 Maj 2019

Qualifications: MSc Molecular Biology. Independent of Ziccum and its senior management. Independent of major shareholders of Ziccum.

Current role: COO for the Swiss-based RW-data science and technology company BC-Plat-forms.

Holdings: 9,000 shares and 42,200 options



Per Gerde

Experience: Per Gerde is a recognized Key Opinion Leader within inhalation and aerosol science and the original inventor and developer of LaminarPace and the founder of Ziccum. With 55 peer-reviewed scientific papers to his name, Per is also the main inventor of six patent families and related patent applications. He was for many years (before retirement) Associate Professor of Inhalation Toxicology, Division of Physiology, Institute of Environmental Medicine at the Karolinska Institutet.

Born: 1953

Appointed: 24 May 2023

Qualifications: Associate Professor of Inhalation Toxicology, Scientist at the Division of Physiology, Institute of Environmental Medicine at the Karolinska Institutet. Research scientist at the Lovelace Respiratory Research Institute (1993– 1998), scientist at the Swedish National Institute of Occupational Health (1991–1996), and postdoctoral fellow at the Lovelace Respiratory Research Institute (1989–1991).

Current roles: CSO and Board member in Inhalation Sciences Sweden AB

Holdings: 220,000 shares

Senior executives



Ann Gidner

CEO (since 2022)
Employed since 2022

Experience: Ann has 25+ years of experience in international Life Science management, from Big Pharma to CDMOs, with an exceptional track record in strategic development, focused leadership, licensing, deal making and intensive growth generation that has included senior executive roles in the US, Denmark and Germany. Her previous roles include CEO of SelectImmune Pharma AB, AcuCort AB and Monocl AB, as well as Head of the Inceptua CTS Business unit in Berlin, Germany and Licensing Director at Novozymes Biopharma in Copenhagen, Denmark. Furthermore, she held senior Global Business Development and Sales & Marketing Director roles in Cambrex Corp based in New Jersey, USA and Lanxess GmbH in Leverkusen, Germany. She has also been in Pharmaceutical manufacturing and Engineering management roles. Currently Ann holds a board position in Iconovo AB and was previously a Board member of SenzaGen AB.

Born: 1966

Education: MSc in Chemical Engineering, Bioprocesses, Lund University and École Nationale Supérieure d'Ingénieurs de Génie Chimique de Toulouse. MBA from Lund University. Degree in French, Étoile, Paris.

Holdings: 141,639 shares and 200,000 options



Johnny Humaloja

CFO (since 2023)
Employed since 2023

Experience: Johnny has held positions as CFO, finance and logistics director and financial controller at a range of life science and medical technology companies. He was formerly CFO of Amniotics AB, where he led the company's successful IPO and Nasdaq listing in 2021. His other previous roles include CFO at Genovis, Finance and Logistics Director at Zambon Pharm, Controller at Boston Scientific, Financial Controller at Metso Minerals and Plant Controller at Biogen Idec.

Born: 1966

Education: MBA in business administration and management, Lund University. Master's degree in business administration and economics, Lund University.

Holdings: 4,348 shares and 33,000 options



Xavier Turon

COO (since 2023)
Employed since 2023

Experience: Xavier has extensive industrial as well as academic experience in chemical engineering, with deep expertise in bioprocessing and biomanufacturing, including the manufacturing of proteins and peptides. He has published 20 scientific articles and holds a patent. He has been an Associate Researcher at North Carolina State University, a visiting professor at the University of Sassari and a doctoral researcher at Polytechnique Montreal. Directly before joining Ziccum, Xavier was Industrial Biotech Manager at Lipotec, Lubrizol Life Science in Spain, where he led a team designing, developing and scaling up GMP-quality manufacturing plants for pilot as well as commercial scale bioactive ingredients.

Born: 1975

Education: Bachelor's degree in Life Sciences, University of Girona. PhD in Chemical Engineering, University of Girona. Postdoctoral Studies in Biomaterials Engineering, North Carolina State University.

Holdings: 0 shares and 50,000 options



Fabrice Rose

CSO (since 2022)
Employed since 2019
Scientific Director (since 2022) Employed since 2019

Experience: Fabrice is the author or co-author of 16 peer-reviewed publications on vaccine formulation. His 20 years' plus experience in formulation and drug delivery including ten year's work specializing in the design and characterization of nanoparticulate vaccine formulations and investigating the physical stability of protein antigens. Fabrice's extensive industry experience is combined with academic achievements in his role at Copenhagen University.

Born: 1975

Education: Bachelor's Degree in Pharmaceutical Development and Production, Conservatoire National des Arts et Métiers, Paris. University degree in production and quality in the pharmaceutical industry, Aix-Marseille University, Marseille. 20 years of experience in formulation and drug delivery, particularly in nanoparticulate vaccine formulations and protein antigen stability. Analytical Lab and work at Catalent in formulation and stability studies, former laboratory specialist at Copenhagen University as a researcher at SOLVE.

Holdings: 1,000 shares and 52,182 options

Risks and uncertainties

An investment in securities is associated with risk. In this section, the risk factors and important circumstances that are considered essential for Ziccum's operations and future development are described. The risk factors stated in this section are only limited to such risks that are deemed to be specific to Ziccum and/or Ziccum shares and that are deemed to be essential for an investor to be able to make a well-founded investment decision. The risk factors are presented in a limited number of categories which include Ziccum's business and operational risks, legal and regulatory risks, and financial risks. The statement below is based on the Company's assessment and information available on the date of the Information Memorandum.

Business and operational risks

Risks related to development of new biological drugs and vaccines.

Ziccum develops LaminarPace, a unique method for drying biological drugs and vaccines at room temperature. A biological drug or vaccine manufactured using LaminarPace must undergo extensive research as well as preclinical and clinical studies with the aim of demonstrating safety and efficacy in humans before they can be given regulatory permission to be launched on the market as finished products. There is a risk that the Company, its collaborators or other third parties fail to successfully carry out the necessary tests or preclinical or clinical studies to commercialize product candidates using the LaminarPace technology. It is also difficult to determine in advance which resources are required to reach commercialization. There is therefore a risk that the Company is forced to cancel its projects or needs to carry out more extensive studies than the Company currently deems necessary, which may delay the development process and cause, among other things, increased costs, delayed commercialization and, by extension, reduced or non-existent cash flow.

Risks related to the development of LaminarPace.

Ziccum's technology for drying biological drugs and vaccines, LaminarPace, is in the development phase and there is a risk that the development of the technology may be delayed or require substantially larger investments than currently anticipated and before it becomes approved for manufacturing of clinical trial material and eventually commercial products. This entails a risk that the Company's income may be delayed or completely or partially absent, which may have a negative impact on the Company's operations and profitability.

Risks related to failure to launch and/or market acceptance.

Ziccum is developing LaminarPace to be out licensed to developers and manufacturers of vaccines and biological drugs in the global pharmaceutical industry. The company's value is largely dependent on the success in developing LaminarPace to become commercially viable and the ability to enter partnerships. Even if the Company's technology LaminarPace were to be approved for manufacturing of clinical material and material for commercial use there is no guarantee that the technology will gain broad market acceptance or that the Company's partners will achieve regulatory acceptance for their products and/or reach a commercial stage. This entails a risk that the Company's income may be delayed or completely or partially absent, which may have a negative impact on the Company's operations and profitability.

Risks related to partners and suppliers.

The Company and its operations are dependent on collaborations and collaboration partners to enable the out-licensing of the Company's technology. There is a risk that a collaboration partner does not fulfill agreed obligations, or that a collaboration partner chooses to cancel the collaboration before the Company has received full benefit from the collaboration. Non-arriving or delayed compensation and other income as well as interrupted collaborations can lead to delayed commercial success and negatively affect the Company's results and, in the long term, the Company's financial position. The Company is further dependent on current and future license partners for continued development and successful commercialization of the Company's current and future products and technologies. As of the date of the Information Memorandum, the Company has entered into cooperation agreements with world-leading biotech and pharmaceutical companies for the evaluation of the Company's technology. The Company is dependent on these collaborations to successfully conduct its business, and if these collaborations were to be terminated or changed to unfavorable conditions for the Company, it would have a materially negative impact on the Company's ability to conduct its business successfully. In addition to the collaboration agreements described above, the Company is, and the Company will likely continue to be, dependent on collaborations with various suppliers and manufacturers to produce relevant materials as well as providers of clinical services. There is a risk that current, or future, suppliers, manufacturers, licensees, and partners choose to discontinue their cooperation with the Company or cannot continue the cooperation on favorable or even acceptable terms for the Company. Nor can it be guaranteed that the Company's suppliers, manufacturers, or partners fully meet or will be able to meet the quality requirements set by the Company or relevant authorities. If any of the above risks should occur, the Company considers that it could have a negative impact on the Company's operations in the form of delayed commercialization, delays or interruptions in the Company's operations, unforeseen costs for the Company and possibly also lead to limited or non-existent income.

Risks related to competition.

Development and commercialization of new products and technologies in the pharmaceutical area for drying substances is characterized by rapid technological development and extensive investment needs. There is a risk that the Company will be exposed to competition from large pharmaceutical companies, biotechnology companies and contract manufacturers from all over the world, as well as from universities and other research institutions. Competitors, including those described above, may have greater financial and other resources than the Company and its partners, which may give them advantages in, for example, research and development, contacts with authorities, marketing, and product launch. There is a risk that the Company's competitors succeed in commercializing solutions earlier than the Company and its partners, or that competitors develop solutions that are more effective, safer or cheaper than the Company's technology, which may result in such competitors establishing a strong market position before the Company can enter the market. Such competing solutions may limit Ziccum's ability to commercialize its technology and thereby generate revenue in the future.

Risks related to key personnel and qualified personnel.

The operations in Ziccum are conducted by qualified personnel who work to create the best possible conditions for development and commercialization of the Company's technology. The Company's operations are conducted as of the date of the Information Memorandum with a relatively limited organization, and the Company's future growth is largely dependent on the knowledge, experience and commitment possessed by key personnel. These key people have significant competence in development and production. Ziccum's ability to hire and retain qualified personnel is of great importance to the Company's future success. If the

Company is unable to retain its key personnel or fails to recruit new qualified personnel to the extent needed or on satisfactory terms against competition from industry companies, universities, and other institutions, this could lead to increased personnel costs and delays or interruptions in the Company's operations and further development. This could have a negative impact on the Company's ability to achieve its strategy and development goals, thereby affecting the Company's profitability and future earning capacity.

Legal and regulatory risks

Risks related to government permits, approvals, and regulatory compliance.

For Ziccums technology to be used for manufacturing of clinical trial and commercial material the Company's customers must meet regulatory requirements and obtain the necessary permits and regulatory approvals and registrations from relevant authorities in each market, for example the FDA in the US and the EMA in Europe. Obtaining the necessary permits and approvals, as well as complying with the regulatory requirements placed on drug development, is time- and cost-consuming and can increase the cost, delay or prevent the commercialization of the Company's technology. There is also a risk that regulatory requirements and guidelines, as well as the rules currently in force for obtaining permits or approval, or interpretations of these rules, could be changed in a way that is disadvantageous to the Company. If Ziccum's customers were not to obtain the necessary permits or regulatory approvals and registrations or meet other regulatory requirements, or in the event that any future permits, approvals and registrations were to be delayed, revoked or limited, it could have negative effects on the Company's ability to commercialize its technology, which could have a negative impact on the Company's operations and financial position, as well as lead to the Company's market position deteriorating in relation to the Company's competitors.

Risks related to patents and intellectual property rights.

As of the date of the Information Memorandum, Ziccum has one approved patent and has submitted three patent applications covering the Company's technology, formulations of biopharmaceuticals for optimal LaminarPace drying, key operating parameters of its LaminarPace mass transfer drying system and configuration of the drying equipment itself. The company has a well-developed strategy for intellectual property rights and is highly dependent on its patents. Monitoring and maintaining intellectual property rights is time- and cost-consuming, and the Company assesses that these costs may increase in the future, especially if the Company develops its portfolio of intellectual property rights, for example through additional patent or trademark applications. Patents and other intellectual property rights have a limited lifespan and there is a risk that granted patents do not provide sufficient commercial protection, as objections or other invalidity claims against granted patents can be made after the patent has been granted. If the Company is forced to defend its patent rights against a competitor, or has a patent declared invalid, this may entail extensive costs for the Company, which may affect the Company's operations and financial position significantly negatively. There is also a risk that the Company's ongoing patent applications will not be granted or that the Company will not succeed in registering and completing all necessary patent applications at a reasonable cost. It may also turn out that other actors have applied for patents regarding product candidates or technology that are covered by or overlap with the Company's patent applications or products, without the Company's knowledge. There is therefore a risk that the Company may infringe, or be alleged to infringe, patents held by third parties. A possible infringement of third-party patents may limit the possibilities for the Company or its potential partners to use and commercialize the Company's technology as planned. In addition, the Company's patent applications may have a lower priority in relation to other applications. If the above-mentioned risks materialize, it could lead to a reduction in the reported value of the Company's intangible assets, which could have a significant negative impact on the Company's operations and financial

position. There is also a risk that new technology or new products are developed by other actors which may result in the Company's intellectual property rights being replaced or circumvented, or that the Company cannot obtain the necessary patent protection. Other patents may also limit the Company's ability to freely use its technology, which may hinder or prevent continued development and successful commercialization and thus the Company's opportunities to generate revenue in the future.

Risks related to trade secrets and know-how.

Ziccum depends on trade secrets and know-how in its operations, which cannot be protected by registration in the same way as patents and other intellectual property rights. This concerns, for example, information about inventions and technologies that have not yet been applied for, as well as knowledge about concepts, methods and processes. Ziccum uses confidentiality agreements with employees, consultants, advisors, partners, and suppliers to protect trade secrets and know-how, but these agreements may prove insufficient to prevent trade secrets and know-how from being disclosed and disseminated without the Company's control, which entails a risk that competitors may take part in and use trade secrets and know-how developed by Ziccum. Such uncontrolled dissemination of confidential information could negatively affect the development of the Company's technology and the Company's ability to generate revenue.

Financial risks

Risks related to future capital needs.

The Company's operations, as well as potential customers' obtaining the required regulatory approvals, entail significant costs. Ziccum is in an early commercialization phase. Some sales revenue has been generated to evaluate the Company's technology, but it may take a long time before positive cash flow can be generated from the Company's operations. There is a risk that the Company's projects may be more time- and cost-consuming than planned, and any delays in the Company's development plan may mean that positive cash flow is generated later than planned. The company may therefore, depending on when a positive cash flow is achieved, also need to acquire additional capital in the future. There is a risk that the Company will not be able to acquire any capital when the need arises or that it cannot be acquired on favorable terms for the Company, which could significantly negatively affect the Company's operations and financial position. If Ziccum cannot obtain sufficient financing, the Company may be forced to stop planned development projects, carry out restructuring of all or parts of the business, or be forced to conduct operations at a lower rate than planned, which may lead to delayed or non-existent commercialization of the Company's product candidates as well as delayed or lost sales revenue.

Risks related to future new issues and dilution.

Ziccum is a relatively young company that is in an early development phase, and the Company has historically been dependent on contributed capital from shareholders and investors. Furthermore, it is difficult to assess in advance when the Company may become profitable. To enable continued development of Ziccum's operations, the Company may need additional capital to finance its operations. If additional financing is arranged through equity capital, further new issues of shares or other securities in the Company for current shareholders, unless they participate in such potential new issues, means a dilution of their ownership stake in the Company. As the timing and terms of any future new issues will depend on Ziccum's situation and market conditions at the time in question, the Company cannot predict or estimate the amount, timing or other terms of such new issues. Depending on what the terms look like for any additional new issues, such new issues may have a negative impact on Ziccum's share price.

Financial overview

Revenue for the year 2023 amounted to KSEK 3,747 and other revenue to KSEK 2,571. Sales revenue and other revenue for 2023 amounted to SEK 6,318. The revenue comes from feasibility studies conducted for large biotechnology and pharmaceutical companies during the year. Other income mainly refers to the Vinnova grant that the Company received.

The company's cash and cash equivalents at the end of the year amounted to SEK 2,994,000. The Board and company management continuously evaluate the capital situation and alternatives to ensure the Company's long-term capital needs. The company has revenue-generating evaluation agreements in place, which is estimated to bring in SEK 5 million during 2024. The company was granted a Eurostars grant in 2022 and expected payments in 2024 are estimated to be SEK 872,000.

On 19 January 2024, the Company carried out a directed new issue of 622,371 shares of approximately 4.2 MSEK to Global Corporate Finance ("GCF"). The directed issue is part of a long-term financing agreement with GCF where Ziccum has a unilateral right to call for investments totaling approximately SEK 31 million. The Board of Directors of Ziccum has also, based on the existing authorization from the Annual General Meeting 2023, decided to carry out the Rights Issue of a total of approximately SEK 10.4 million. Considering the directed new issue, and assuming that the Rights Issue is fully subscribed, Ziccum will receive initial proceeds totaling approximately SEK 13.5 million, after deduction of issue costs totaling approximately SEK 1 million. Through the financing agreement with GCF and the Rights Issue, Ziccum has access to financing that covers the Company's budgeted costs until 2025.

Key financial data summary

KSEK	2023	2022
Operating income	6,318	17
Operating profit	-21,560	-28,955
Profit for the year	-21,412	-28,788
Total assets	14,972	33,285
Cash flow for the year	-19,956	10,678
Cash and cash equivalents	2,994	22,951
Equity ratio %	57	88

Key figures per share (SEK)	2023	2022
Number of shares at end of year	13,806,142	13,806,142
Earnings per share before and after dilution	-1.55	-2.09
Year's cash flow per share	-1.45	0.78
Equity per share	0.62	2.12

Income statement

KSEK	2023	2022
Net turnover	3,747	0
Other income	2,571	17
Total revenue 6,318,17	6,318	17
Operating expenses	-13,143	-16,323
Other external costs	-13,517	-11,276
Personnel costs	-1,218	-1,373
Depreciation of tangible and intangible fixed assets		
Operating profit	-21,560	-28,955
Results from financial items		
Financial net	148	167
Profit after financial items	-21,412	-28,788
RESULT FOR THE YEAR	-21,412	-28,788

Balance sheet

KSEK	2023-12-31	2022-12-31
ASSETS		
<i>Fixed assets</i>		
<i>Intangible assets</i>		
Patents, licenses and similar rights	369	624
<i>Tangible fixed assets</i>		
Inventory	7,420	8,246
Total fixed assets	7,789	8,870
<i>Current assets</i>		
Receivables		
Other receivables	3,239	496
Prepaid expenses and accrued income	950	968
Total short-term receivables	4,189	1,464
Cash and cash equivalents	2,994	22,951
Total current assets	7,183	24,415
TOTAL ASSETS	14,972	33,285
Equity and liabilities		
Equity		
<i>Restricted equity</i>		
Share capital	2,301	2,301
Total restricted equity	2,301	2,301
<i>Unrestricted equity</i>		
Premium fund	105,400	105,400
Balanced profit	-77,705	-49,612
Profit for the year	-21,412	-28,788
Total unrestricted equity	6,283	27,000
Total equity	8,584	29,301
Liabilities		
<i>Long-term liabilities</i>		
Liabilities to credit institutions	286	857
<i>Current liabilities</i>		
Accounts payable	853	978
Short-term part of debt to credit institutions	571	571
Other short-term liabilities	725	416
Accrued costs and prepaid incomes	3,953	1,162
Total short-term liabilities	6,102	3,127
TOTAL EQUITY AND LIABILITIES	14,972	33,285

Cash flow analysis

KSEK	2023	2022
Ongoing operations		
Operating profit	-21,560	-28,955
Received interest	302	163
Paid Interest	-97	-94
Adjustment for items not included in cash flow		
Share-related compensation	695	392
Exchange rate changes	-58	99
Depreciation	1,218	5,409
Cash flow from current operations before changes in working capital	-19,500	-22,986
Cash flow from changes in working capital		
Increase/Decrease in operating receivables	-2,725	12,781
Increase/Decrease in operating liabilities	2,404	-3,186
Cash flow from current operations	-19,821	-13,391
Investing activities		
Acquisition of fixed assets	-136	-3 898
Cash flow from investment activities	-19,957	-3,898
Financing activities		
New issue (LTI2018/21)	0	0
Subscription options (LTI 2021/24)	0	0
New issue	0	28,051
New issue costs	0	-84
Cash flow from financing activities	0	27,967
Cash flow for the year	-19,957	10,678
Liquid assets at the beginning of the year	22,951	12,273
LIQUID ASSETS AT YEAR-END	2,994	22,951

Dividend policy

Ziccum is a growth company and the profits generated are planned to be set aside for the development of the business. Against this background, the Company does not expect to pay any dividends in the next few years, but in the future, when the Company's results and financial position allow, a dividend may become relevant. During the period covered by the historical financial information, the Company has not distributed any funds to the Company's shareholders.

Legal issues, share capital and ownership relationships

Shares and share capital

According to the Company's Articles of Association, the share capital must be a minimum of SEK 1,800,000 and a maximum of SEK 7,200,000 distributed over a minimum of 10,800,000 and a maximum of 43,200,000 shares. The share capital in the Company as of 1 January 2023 amounted to SEK 2,301,023.666669 distributed over a total of 13,806,142 shares, which also corresponds to the share capital and the number of shares at the beginning of the fiscal year 2024. Each share has a quota value of SEK 0.166667. The shares in the Company are of the same share type, ordinary shares, and are issued in accordance with Swedish law and are denominated in SEK. The shares are fully paid and freely transferable.

Material agreements

The Company has not entered into any agreements that are outside the Company's regular operations and that are of significant importance to Ziccum during a period of one year prior to the date of the Memorandum.

Regulatory proceedings, legal proceedings and arbitration proceedings

The Company is not, and has not in the past twelve months, been the subject of any authority proceedings or been a party to any legal proceedings or arbitration proceedings, including pending cases, which have recently had or could have significant effects on the Company's financial position or profitability. The Company's Board is also not aware of any circumstances that could lead to any such authority proceedings, legal proceedings or arbitration proceedings.

Shareholder agreement

As far as the Company's Board is aware, there are no shareholder agreements between the Company's shareholders that aim at joint influence over the Company. The Company's Board is also not aware of any agreements or corresponding agreements that could lead to a change in control of the Company.

Ziccum has not taken any special measures to ensure that control of the Company is not abused and there are no provisions in the Company's Articles of Association that can delay, postpone or prevent a change in control of the Company. However, the rules for the protection of minority shareholders contained in the Swedish Companies Act (2005:551) constitute a protection against a majority shareholder's possible abuse of control over a company.

Shareholder

As of the date of the Memorandum, there are, to the Company's knowledge, no natural or legal persons who own five percent, or more than five percent, of all shares or votes in Ziccum other than those shown in the table below.

Shareholder	Number of shares	Ownership (%)
William Lithander	936,113	6.78
Avanza Pension	873,460	6.33
Göran Conradson	760,738	5.51
Tigerstaden AS	401,189	2.91
Nordnet Pensionsförsäkring	344,193	2.49
Per Gerde	220,000	1.59
Other shareholders	10,267,449	74.34
Total	13,803,142	100

Warrants, convertible instruments, etc.

As of 31 December 2023, the Company had the following warrant programs. In addition to the Company's warrant programs below, there were no convertible or exchangeable instruments or instruments associated with the right to subscribe for other instruments in the Company as of 31 December 2023.

Outstanding warrant program / incentive program

At the Annual General Meeting on 27 April 2021, it was resolved to introduce a long-term incentive program by issuing warrants to the Board members (LTI 2021/24), as well as a long-term incentive program for the Company's employees and consultants in the form of employee options (LTI 2021:1).

At the Annual General Meeting on 28 April 2022, it was resolved to introduce a long-term incentive program for the Company's employees and Board in the form of employee options (LTI 2022:1)

At the Annual General Meeting on 24 May 2023, it was resolved to introduce a long-term incentive program for the Company's employees in the form of employee options (LTI 2023:1)

No options carry the right to a dividend.

LTI 2021:1

LTI 2021:1 runs for three years and means that the participants are awarded free of charge employee options that give the right to acquire shares in Ziccum at a subscription price corresponding to the share's quota value. Each employee option gives the right to subscribe for a new share in Ziccum, alternatively up to 40 percent of the number in synthetic options that give the right to cash compensation instead of shares. Each synthetic option gives the participant the right to receive a cash payment corresponding to the value of one share at the time of payment.

The options are expensed as personnel costs over the vesting period, without impact on the Company's cash flow. If employee options are exercised, LTI 2021:1 will also entail costs in the form of social security contributions. Social security contributions are expensed in the income statement during the earning period. The company intends to secure the entire cost of social security contributions through an issue of warrants, which may be used by a financial intermediary in connection with the exercise of the employee options. These not yet issued options are not included in the table below. If the Company chooses to implement such hedging measures, the social security contributions will not affect the Company's cash flow.

Warrants, convertible instruments, etc.

As of 31 December 2023, the Company had the following warrant programs. In addition to the Company's warrant programs below, there were no convertible or exchangeable instruments or instruments associated with the right to subscribe for other instruments in the Company as of 31 December 2023.

Outstanding warrant program / incentive program

At the Annual General Meeting on 27 April 2021, it was resolved to introduce a long-term incentive program by issuing warrants to the Board members (LTI 2021/24), as well as a long-term incentive program for the Company's employees and consultants in the form of employee options (LTI 2021:1).

At the Annual General Meeting on 28 April 2022, it was resolved to introduce a long-term incentive program for the Company's employees and Board in the form of employee options (LTI 2022:1)

At the Annual General Meeting on 24 May 2023, it was resolved to introduce a long-term incentive program for the Company's employees in the form of employee options (LTI 2023:1)

No options carry the right to a dividend.

LTI 2021/24

The exercise price per share for LTI 2021/24 amounts to SEK 28.8 and each warrant gives the right to subscribe for a new share in Ziccum during the period from and including 1 May 2024 to and including 31 May 2024. The incentive program means that participants are offered to subscribe for warrants at market value calculated according to the Black-Scholes valuation model.

A prerequisite for participation in the incentive program is that the participant has entered into a pre-purchase agreement with Ziccum, whereby Ziccum, with certain exceptions, reserves the right to buy back warrants if the Board member's assignment in Ziccum ends or if the participant in turn wishes to transfer the warrants before the warrants can be utilized.

The Board members were offered to acquire a maximum of 9,200 warrants each and all chose to acquire the maximum number, which resulted in a total of 46,000 warrants being issued.

LTI 2021:1

LTI 2021:1 runs for three years and means that the participants are awarded free of charge employee options that give the right to acquire shares in Ziccum at a subscription price corresponding to the share's quota value. Each employee option gives the right to subscribe for a new share in Ziccum, alternatively up to 40 percent of the number in synthetic options that give the right to cash compensation instead of shares. Each synthetic option gives the participant the right to receive a cash payment corresponding to the value of one share at the time of payment.

The options are expensed as personnel costs over the vesting period, without impact on the Company's cash flow. If employee options are exercised, LTI 2021:1 will also entail costs in the form of social security contributions. Social security contributions are expensed in the income statement during the earning period. The company intends to secure the entire cost of social security contributions through an issue of warrants, which may be used by a financial intermediary in connection with the exercise of the employee options. These not yet issued options are not included in the table below. If the Company chooses to implement such hedging measures, the social security contributions will not affect the Company's cash flow.

LTI 2022:1

LTI 2022:1 runs for three years and means that the participants are awarded free of charge employee options that give the right to acquire shares in Ziccum at a subscription price corresponding to the share's quota value. Each employee option gives the right to subscribe for a new share in Ziccum, alternatively up to 40 percent of the number in synthetic options that give the right to cash compensation instead of shares. Each synthetic option gives the participant the right to receive a cash payment corresponding to the value of one share at the time of payment.

The options are expensed as personnel costs over the vesting period, without impact on the Company's cash flow. If employee options are exercised, LTI 2021:1 will also entail costs in the form of social security contributions. Social security contributions are expensed in the income statement during the earning period. The company intends to secure the entire cost of social security contributions through an issue of warrants, which may be used by a financial intermediary in connection with the exercise of the employee options. These not yet issued options are not included in the table below. If the Company chooses to implement such hedging measures, the social security contributions will not affect the Company's cash flow.

LTI 2023:1

LTI 2023:1 runs for three years and means that the participants are awarded free of charge employee options that give the right to acquire shares in Ziccum at a subscription price corresponding to the share's quota value. Each employee option gives the right to subscribe for a new share in Ziccum, alternatively up to 40 percent of the number in synthetic options that give the right to cash compensation instead of shares. Each synthetic option gives the participant the right to receive a cash payment corresponding to the value of one share at the time of payment.

The options are expensed as personnel costs over the vesting period, without impact on the Company's cash flow. If employee options are exercised, LTI 2021:1 will also entail costs in the form of social security contributions. Social security contributions are expensed in the income statement during the earning period. The company intends to secure the entire cost of social security contributions through an issue of warrants, which may be used by a financial intermediary in connection with the exercise of the employee options. These not yet issued options are not included in the table below. If the Company chooses to implement such hedging measures, the social security contributions will not affect the Company's cash flow.

Authorizations

The Annual General Meeting resolved on 24 May 2023, in accordance with the Board's proposal, to authorize the Board to, on one or more occasions before the next Annual General Meeting, with or without deviation from the shareholders' pre-emptive rights, resolve on a new issue of shares or issue of convertible instruments or warrants. The issuance may be made against cash payment, in kind or set-off or otherwise on terms referred to in Chapter 2, Section 5 second paragraph 1–3 and 5 of the Swedish Companies Act (2005:551). The number of shares that can be issued, or, in the case of issuance of convertible instruments or warrants, added after conversion or exercise, with the support of the authorization shall be limited to 30 percent of the number of shares outstanding at the time of the Annual General Meeting.

The purpose of the authorization is to increase the Company's financial flexibility and the Board's scope of action. If the Board resolves on an issue without pre-emption rights for the shareholders, the reason must be to broaden the shareholder base, raise or enable the raising of working capital, increase the liquidity of the share, carry out company acquisitions or raise or enable the raising of capital for company acquisitions.

Dividend

Resolutions on dividends are resolved by the Annual General Meeting and payment is taken care of by Euroclear Sweden. According to the Swedish Companies Act (2005:551), a dividend may only be made with such an amount that after the dividend there is full coverage for the Company's equity and only if the dividend appears to be justifiable with regard to (i) the requirements that the nature, scope and risks of the business place on the equity, and (ii) the company's consolidation needs, liquidity and position in general. As a general rule, shareholders may not resolve on a larger dividend than what the Board has proposed or approved.

The right to a dividend accrues to anyone who is registered as a holder of shares in the share register maintained by Euroclear on the record date for the dividend determined by the General Meeting. If the shareholder cannot be reached for receipt of dividends, the shareholder's claim on the company remains and is limited only by general rules for prescription. In case of prescription, the entire amount accrues to the company. The company does not apply any restrictions or special procedures regarding cash dividends to shareholders residing outside Sweden, with the exception of any restrictions resulting from banking and clearing systems, payment is made in the same way as for shareholders residing in Sweden. For shareholders who are not domiciled in Sweden for tax purposes, however, Swedish withholding tax is normally payable. There are no guarantees that a dividend will be proposed or resolved on in the company for a given year. The newly issued shares have the same right to dividends as existing shares of the same type.

Public takeover offers and forced redemptions

In the Swedish Stock Market Takeover Bids Act (2006:451) there are basic provisions on public takeover offers (takeovers) regarding shares in companies whose shares are admitted to trading on a regulated market in Sweden. The law also contains provisions on the obligation to bid and defense measures. Furthermore, according to the Swedish Securities Market Act (2007:528), a stock exchange must have rules on public takeover offers relating to shares admitted to trading on a regulated market operated by the stock exchange. The stock exchanges Nasdaq Stockholm AB and Nordic Growth Market NGM AB currently have such rules. The Swedish Corporate Governance Board, which is supposed to work for good practice on the Swedish stock market, recommends that substantially similar rules be applied with respect to companies whose shares are traded on the trading platforms Nasdaq First North Growth Market, Nordic MTF and Spotlight.

The applicable regulations for Ziccum are takeover rules for certain trading platforms issued by the Swedish Corporate Governance Board. A takeover offer can apply to all or part of the shares, either be voluntary through a public takeover offer or mandatory through mandatory bidding, which occurs when an individual shareholder, alone or together with related parties, has the equivalent of 30 percent of the votes or more.

A public takeover offer can take place in cash or through a share offer where new shares are offered in the acquiring company, sometimes a combination of the two. The offer may be conditional or unconditional. All shareholders can accept the offer or reject it, although the latter may be subject to compulsory redemption if the bidder achieves 90 percent of the votes and calls for this.

Compulsory redemption means that minority shareholders are forced to sell shares, even though the shareholder has not accepted the offer. This can happen when the bidder or shareholder has more than 90 percent of the votes in the acquired company. Compulsory redemption can also be invoked by minority shareholders when a shareholder has more than 90 percent of the votes. This process is part of minority protection, which aims to create a fair treatment of all shareholders, large and small, where shareholders who are forced to dispose of their shares must receive fair compensation.

Ziccum's shares are not subject to an offer made as a result of a mandatory bid, redemption right or redemption obligation. There have been no public takeover offers regarding Ziccum's shares during the current or previous financial year.

Tax issues in connection with the rights issue

The tax laws of the investor's domicile and Sweden may affect any income received from the shares subscribed for in the Offer. Taxation of any dividend, as well as capital gains taxation and rules on capital losses when selling securities, depends on each individual shareholder's specific situation, for example if the shareholder is unlimited or limited in tax liability in Sweden, if the shareholder keeps the shares in an investment savings account, or if the shareholder owns the shares as physical or legal entity. Furthermore, special tax rules apply to certain types of taxpayers, for example investment companies and insurance companies, and certain types of investment forms. Each holder of shares and subscription rights should therefore consult a tax advisor to obtain information about the particular consequences that may arise in the individual case, including the applicability and effect of foreign tax rules and tax treaties.

Adresses

The issuer

Ziccum AB (publ)
Scheelevägen 22
223 63 Lund

Legal advisor

Fredersen Advokatbyrå AB
Birger Jarlsgatan 8
114 34 Stockholm

Issuing institution

Aqurat Fondkommission AB
Box 7461 103 92 Stockholm
Visit: Kungsgatan 58 111 22 Stockholm

Certified Adviser

Carnegie Investment Bank AB (publ)
Regeringsgatan 56
103 38 Stockholm

Auditor

Ernst & Young AB
Box 7850, 103 99 Stockholm

Central Securities Administrator

Euroclear Sweden AB
Box 191, 101 23 Stockholm
Visit: Klarabergsviadukten 63

