



**BRIEF SUMMARY OF THE ANNUAL
REPORT AND FINANCIAL STATEMENTS**
FOR THE PERIOD 01.01.2022-31.12.2022

Wroclaw, March 31, 2023



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PART I

I. LETTER FROM THE PRESIDENT TO SHAREHOLDERS

Dear Shareholders,

In presenting this report and summarising the past year, I would like to convince you of the significance of this period for future business prospects. I am aware that the politically and macroeconomically turbulent year 2022 has made it difficult to assess Pure Biologics' activities.

After several years of dynamic growth and each year better than the previous one, the past quarters, against the backdrop of negative developments in the macroeconomic situation, posed a major management challenge, from which, however, we are emerging unscathed. The company was able to implement an action plan to mitigate emerging risks in the execution of its broad portfolio of projects. My team has proven that, even in adverse circumstances, they are able to chalk out priorities, develop a solid and workable plan and, most importantly, drive significant scientific and business progress bringing us closer to the commercialisation of our first projects. As a management team, we have proven that in difficult circumstances we are capable of making firm and unpopular decisions. Our actions are driven by a determination to achieve strategic goals - because only on their realisation depends a satisfactory return on investment for those of you who have trusted the Company in the past and the large group that continues to do so. At the same time, we have rejected ad hoc communication activities and have remained faithful to the principle of communicating only events that are certain and significant for the Company, its mission and its determination to fulfil its long-term plans.

2022 has been a challenging but also very busy and productive year. Pure Biologics' scientific team developed and implemented a research strategy in its projects that bypasses the translational gap between preclinical development and human drug application. Drug development based on cell-based testing and mouse models of cancer often fails to translate into therapeutic efficacy in humans, which is a major obstacle to drug development. As a few among small biotechs, we have introduced phase 0 clinical trials into the project development pathway, as an intermediate step before the traditional phases 1-3. This approach is strongly supported by, for example, the FDA, as it allows early assessment of therapeutic efficacy in the complex human tumour environment and provides a cost-effective decision point prior to further CMC and next clinical phase studies. It is also worth noting that by building a design portfolio based on molecular targets with a proven research history and promising early clinical phase results, we minimise the risk of developing immuno-oncology assets in the clinic, while at the same time, through proprietary solutions, preserving the potential of molecules to be first-in-class. In addition, instead of a classic phase 1 study without patient stratification, we intend to focus on recruiting patients whose tumour characteristics match the biology of the drug candidate to increase the chances of observing a therapeutic response as early as the first stage of clinical development. Acquiring pharmacodynamic data in humans following intratumoural administration of drug candidates, and stratifying patients in phase one, significantly increases the value of early-stage projects, maximising the chance of satisfactory commercialisation.

Each of our immuno-oncology projects aims to overcome immunosuppression, the main obstacle to the elimination of cancer cells by the human immune system. In the context of the necessary optimisations caused by limited financial resources, we intend to focus on projects PB003 and PB004, as in their case we have already been able to confirm a favourable in vitro therapeutic profile, with the potential to kill

cancer cells - significantly higher than competing antibodies currently in clinical development. This year, ahead of us is the final selection of candidates for further development, the completion of a series of in vivo studies, the claiming of intellectual property with patent applications and preparations for the administration of the first dose to patients in a phase 0 clinical trial. For the new development pattern of the flagship projects (PB003g and PB004) we have secured nearly PLN 65 million in grants from the Medical Research Agency to lead a phase 1 clinical trial in patients with solid tumours and haematological malignancies.

Aware of the time-consuming nature of the process of securing a commercial partner, we devoted a great deal of energy to pro-sales activities over the past year. We continued to work intensively with our broker Destum Partners Inc. and attended most of the key industry events participating in matchmaking sessions, which led to more than a hundred meetings with market participants. The advancement of discussions with potential recipients of the assets under development, or partners to collaborate in their clinical development, reassures us of the high attractiveness of the results obtained and the numerous advantages over competing therapies in development. We have also confirmed that the chosen drug development pathway, with the inclusion of clinical Phase 0, increases the likelihood of a satisfactory agreement.

Given the Company's funding model and challenging times, we have not only prioritised immuno-oncology projects delivering the best results but have also optimised in the area of extracorporeal therapies using aptamers. In this respect, we are redirecting our focus from developing targeted plasmapheresis products for niche markets, to products for the treatment of chronic conditions, including targeted haemodialysis for patients with chronic kidney disease. It represents an urgent and unmet medical need in a large and growing market. We have the opportunity to make a revolution in quality of life for a patient group for which no significant breakthrough has been made in recent decades. This project is being carried out in partnership with the Dutch company Relitech B.V., which is focusing on developing the engineering part of the device, while Clairfield Partners LLC is responsible for commercialisation. Listening to the preference of potential users of the technology and to funding paths that are not available to Pure Biologics due to formal and legal constraints, we have established a subsidiary for this purpose, Doto Medical Ltd. In line with the premise, Pure Biologics will retain control of the Doto Medical until the asset is sold to a global med-tech equipment manufacturer.

Driven by the positive experiences of previous periods, in the past year we again significantly strengthened our international team of specialists. The position of Chief Medical Officer (CMO) was assumed by Dr John Weinberg, whose 25-year career spanned major pharmaceutical (Novartis, Wyeth) and biotech (Veloxis) companies, where he was responsible for the successful development and commercialisation of numerous drugs in the fields of oncology, immunology and transplantology. The second valuable acquisition is Dr Niina Veitonmäki. As manager of our immuno-oncology portfolio, her role is to replicate the successes of the pre-clinical development projects she has been involved in at Molecular Partners, Bioinvent, or Alligator Bioscience. Scientists with very high expertise in immunology, cancer biology, cell biology have also joined the research team, allowing us to significantly increase our execution capabilities in this area.

One of the goals of Pure Biologics in 2022 was to get the new company headquarters up and running. The result of two years of work is a modern laboratory and office complex with a total area of almost 3,200 sq m in one of the largest business parks in Poland, Business Garden in Wrocław. We completed the project on schedule and below budget. In the last quarter of 2022, more than thirty highly specialised and ultra-modern studios, a storage module and ancillary facilities were placed at our disposal, with the remainder of the complex comprising office and conference facilities.

Throughout last year, we saw deteriorating capital market sentiment towards the biotechnology industry, and the macro market was not optimistic either, but it still seemed possible to obtain financing for the entire project portfolio. The funds raised in Q4 proved to be insufficient to fully realise the ambitious targets. The company's projects are very promising, and the nearly PLN 100 million of undiluted capital remaining to be used for their development significantly reduces investors' risk. However, we need an adequate amount of equity capital to implement them. We were therefore faced with the decision of whether we wanted to limit our objectives and, for example, select one project for further implementation or work on several projects with promising results. Each of the drug projects is fraught with risk, so limiting ourselves to one seemed like a waste of the potential we had built up so far. This is one of the reasons for initiating a review of strategic options, in which we are re-examining ways to finance the Company. Weakness in the financial market, inflation, pressure on wages, rising cost of capital are temporarily affecting the entire industry. These are factors that enforce the need to make our business model more flexible. We have already taken the first steps of adjusting our strategy and meeting needs, guided by the will to take full advantage of market opportunities.

In addition to intensifying our activities regarding the commercialisation of ongoing projects, we have been working on the conceptualisation of new drug development programmes for several months and plan to start implementing them as early as 2023, upon receipt of funding under the FENG perspective. Expanding the current portfolio of projects will allow us to effectively utilise Pure Biologics' scientific, technological and operational potential and ensure the future reproducibility of our business model.

A clear and well-defined plan for the clinical development of immuno-oncology programmes, the advancement of sales activities, ambitious plans for further early phase projects and the development of extracorporeal therapies within the group, given the available funding options, allows me to be optimistic about the prospects for growth in the nearest future.

Thanking you for your trust, patience and support on our way to joint success, I encourage you to read the report and follow our progress this year.

Sincerely,

dr. Filip Jeleń

President of The Management Board

II. SELECTED FINANCIAL DATA

The selected financial figures presented in the report have been converted into euro as follows:

1) Items relating to the statement of profit or loss and other comprehensive income, the cash flow statement and the statement of changes in equity were converted at an exchange rate representing the arithmetic average of the exchange rates published by the National Bank of Poland on the last day of each month:

- for period 01.01.2022 – 31.12.2022: PLN 4,6883
- for period 01.01.2021 – 31.12.2021: PLN 4,5775

2) The balance sheet items were converted according to the average exchange rate announced by the National Bank of Poland, in force on the balance sheet date; this exchange rate amounted to:

- as on 31.12.2022: PLN 4,6899
- as on 31.12.2021: PLN 4,5994

	Year closed on 31.12.2022	Year closed on 31.12.2021	Year closed on 31.12.2022	Year closed on 31.12.2021
	PLN thousand	PLN thousand	EUR thousand	EUR thousand
Operating revenues	13 502	18 033	2 880	3 939
Total operating expenses	38 297	28 492	8 169	6 224
Operating profit (loss)	(24 629)	(10 482)	(5 253)	(2 290)
Profit (loss) before tax	(25 603)	(11 765)	(5 461)	(2 570)
Net profit (loss)	(25 603)	(11 765)	(5 461)	(2 570)
Net cash flows from operating activities	(17 387)	(24 035)	(3 709)	(5 251)
Net cash flows from investment activities	15 345	(28 478)	3 273	(6 221)
Net cash flows from financial activities	(1 876)	49 735	(400)	10 865
Total net cash flows	(3 918)	(2 778)	(836)	(607)
	As on 31.12.2022	As on 31.12.2021	As on 31.12.2022	As on 31.12.2021
	PLN thousand	PLN thousand	EUR thousand	EUR thousand
Total assets / liabilities	33 009	47 190	7 038	10 260
Fixed assets	8 838	4 175	1 884	908
Current assets	24 171	43 015	5 154	9 352
Equity capital	18 297	39 486	3 901	8 585
Liabilities and provisions for liabilities	14 712	7 704	3 137	1 675
Long-term liabilities	1 325	2 155	283	468
Short-term liabilities	13 387	5 549	2 854	1 206
Weighted average number of ordinary shares	2 221 123	2 221 123	2 221 123	2 221 123
Profit (loss) per ordinary share (in PLN / EUR)	(11,53)	(5,30)	(2,46)	(1,16)
Number of shares at the end of the period	2 254 000	2 254 000	2 254 000	2 254 000
Book value per share (in PLN / EUR)	8,24	17,78	1,76	3,87

III. ANNUAL FINANCIAL STATEMENT OF PURE BIOLOGICS INC.

The annual separate financial statement of Pure Biologics Inc. is attached as Appendix 1 to this report.

PART II – ANNUAL REPORT ON OPERATIONS

IV. BASIC INFORMATION ABOUT THE COMPANY AND ITS ACTIVITIES

1. Information about the Company

On 30 April 2014 Pure Biologics Inc. (the “Company”, “Entity”) was entered into the Register of Entrepreneurs of the National Court Register, kept by the Regional Court for Wrocław-Fabryczna in Wrocław, 6th Commercial Division of the National Court Register, under National Court Register (KRS) number 0000712811. On 10 January 2018 the conversion of the Entity into a joint-stock company was registered. The Company's registered office is located in Wrocław (54-427), address: 11 Duńska Street. The Entity has been assigned the Tax Identification Number (NIP) number 8943003192 and the Register of National Economy (REGON) number 021305772. The Company maintains a corporate website at www.purebiologics.com and has an e-mail box at info@purebiologics.com

The Company operates under the provisions of the Commercial Companies Code and the Company's Articles of Association. The duration of the Company is indefinite.

Pure Biologics Inc. specialises in research and development in the area of innovative biological drugs, medical devices for therapeutic and diagnostic applications. The company also conducts contract research for pharmaceutical and biotechnology companies, particularly in the selection of active molecules (antibodies and aptamers) for medical applications (drugs and therapeutic procedures, diagnostics) and the production, purification and analysis of recombinant proteins and the development of measurement methods.

Management Board

As on 31 December 2022 and as on the date of submission of this report, the Management Board consists of Mr Filip Jeleń, who serves as President of the Management Board, and Mr Romuald Harwas, who serves as Vice-President of the Management Board and financial director and Mr Petrus Spee who serves as Vice-President of the Management Board and scientific director. Mr Spee was appointed to the board with effect from 4 April 2022.

Supervisory Board

As on 31 December 2022 and as on the date of this report, the Supervisory Board consists of:

1. Mr Andrzej Trznadel - Chairman of the Supervisory Board,
2. Mr Tadeusz Wesołowski - Deputy Chairman of the Supervisory Board,
3. Ms Julia Bar - Member of the Supervisory Board,
4. Mr Andrzej Kierzkowski - Member of the Supervisory Board,
5. Mr Mariusz Czekąła - Member of the Supervisory Board.

Audit Committee

On 29 July 2020 the Supervisory Board, pursuant to its powers enshrined in §18.8 of the Company's Articles of Association, appointed an Audit Committee consisting of:

1. Mr Mariusz Czekala - Chairman of the Audit Committee,
2. Ms Julia Bar - Member of the Audit Committee,
3. Mr Andrzej Trznadel - Member of the Audit Committee.

Mr Mariusz Czekala is a member of the Audit Committee who fulfils the conditions of the Act on Statutory Auditors concerning having knowledge and skills in accounting or auditing, while Ms Julia Bar has knowledge of the industry in which the Company operates. Julia Bar and Mariusz Czekala are also the independent members within the meaning of the Act on Statutory Auditors.

During the period covered by this report, the composition of the Audit Committee did not change.

2. Organisational or capital links

On 1 December 2022, Pre Biologics established a subsidiary Doto Medical Ltd., with its registered office in Wrocław, at: 48E Legnicka Street, 54-202 Wrocław, entered in the Register of Entrepreneurs under National Court Register (KRS) number: 0001006044, whose registration files are kept by the District Court for Wrocław-Fabryczna in Wrocław, IX Economic Division of the National Court Register, holding a tax identification number (NIP) 8943200107, with a share capital of PLN 5,000.00, represented by Filip Jeleń, President of the Board. By the date of publication of this Report Doto Medical Ltd. has not undertaken any business activities. As on the day of publication Pure Biologics Inc. owns 100% of the shares of Doto Medical Ltd. Accordingly, from the financial year 2023 onwards, the aforementioned companies will form a capital group.

3. Characteristics of external factors significant for the development of the Company

Pharmaceutical market – key factors and trends

Overview of selected newly registered anticancer drugs in 2022

The US Food and Drug Administration, FDA, has registered 2022. 37 new drugs, 12 of which were new cancer therapies.

Among the newly registered anticancer drugs, it is worth mentioning several that involved antibodies:

January 2022 brought the registration of the first drug based on the T-cell receptor (TCR) – tebentafusp (Kimmtrak, of Immunocore). It is a bispecific fusion protein that is a combination of a soluble T-cell receptor (TCR) targeting the melanoma tumour antigen protein gp100, with an antibody fragment targeting CD3, which is responsible for the binding and activation of cytotoxic T cells. The approach used offers an alternative to CAR-T therapies based on genetic modification of the patient's own cells. It also makes it possible to target tumour antigens expressed intracellularly, which until now has mainly been the domain of therapies with small-molecule compounds. Tebentafusp has been registered as monotherapy for adults with human leukocyte antigen (HLA)-A*02:01 inoperable or metastatic uveal

melanoma. Immunocore was founded in 2008 as a spin-out of MediGene AG. In 2015, Immunocore closed Europe's largest ever Series A private company funding round of \$320m. In 2017, the company's growth support was bolstered by \$40m invested by the Bill and Melinda Gates Foundation. In March 2020, Immunocore raised an additional \$130m in a Series B private placement, followed by a further \$75m in a Series C private placement in January 2021. Immunocore has been listed on Nasdaq since February 2021. In its latest report, the company announced that total revenue from Kimmtrak sales for 2022 was \$141.1m.

In March 2022, FDA registration took place for the first drug targeting the immune checkpoint LAG3 (anti-LAG3 antibody - relatlimab) for use in combination therapy with nivolumab (anti-PD-1), under the common name Opdualag (from Bristol Myers Squibb) in patients with inoperable or metastatic melanoma.

This therapy is expected to be a safer alternative than the previously used combination of ipilimumab (anti-CTLA4) with nivolumab (anti-PD-1) and more effective than monotherapy with nivolumab or pembrolizumab (anti-PD-1).

In August 2022, teclistamab (Tecvayli, Janssen), for relapsed or refractory multiple myeloma in adults who have received at least three prior lines of therapy and whose disease has worsened since their last treatment, received conditional marketing authorisation from the EMA. Teclistamab is a first-in-class bispecific antibody (CD3 x BCMA) that induces CD3+ T cells to eliminate tumour cells expressing the BCMA antigen.

An interesting case is the anti-CTLA-4 antibody tremelimumab (Imjudo, AstraZeneca), registered by the FDA in October 2022 for the treatment of unresectable liver cancer – hepatocellular carcinoma. The molecule first entered the clinical trial phase more than 20 years ago, in the meantime scoring a number of failures. It was eventually approved for combination therapy with durvalumab (Imfinzi, AstraZeneca).

All the above-mentioned drugs have also been approved for marketing in 2022 by the EMA in the European Union and by the FDA in the United States of America.

Anti-cancer drugs withdrawn from the market

In addition to newly registered therapies, 2022 also brought two FDA decisions to withdraw registered drugs from the market. Both decisions concerned the low-molecular-weight kinase inhibitors idelalisib (Zydelig, Gilead) for the treatment of small lymphocytic lymphoma and follicular lymphoma and umbralisib (Ukoniq, TG Therapeutics) previously used for the treatment of marginal zone lymphoma and follicular lymphoma. Both decisions were influenced by concerns about the safety of the therapy. Zydelig was withdrawn voluntarily at the request of Gilead.

Review of selected partnering deals concluded in 2022

Transactions made on molecules in the pre-clinical development stage:

DragonFly Tx & Gilead (5T4 TriNKETTM)

In May 2022, Dragonfly Therapeutics and Gilead announced a collaboration on anti-cancer and anti-inflammatory immunotherapies being developed by Dragonfly based on the use of biological molecules that cause activation and recruitment of NK cells and cytotoxic T cells to the tumour. Under the

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agreement, Gilead is to receive an exclusive and territorially unlimited licence for the molecule DF7001, targeting the recognition of cancer cells overexpressing the 5T4 protein. The agreement also provides an additional option for Gilead to extend the collaboration to additional molecules within Dragonfly's TriNKETM platform once they reach certain stages of preclinical testing. The agreement provides for an upfront payment of \$300m to Dragonfly, as well as additional milestone payments of undisclosed amounts, and royalties of up to 20% of total global net revenues from future sales of the drug.

Harbour BioMed & AstraZeneca (Claudin 18.2 x CD3 bsAb)

In April 2022, Harbour BioMed and AstraZeneca entered into a licensing agreement under which AstraZeneca obtained the rights to further develop and commercialise the bispecific antibody HBM7022, which targets the Claudin18.2 protein, a member of the tumour associated antigen group, and the CD3 T-cell coreceptor. The molecule was in preclinical development at the time the agreement was signed. The financial terms of the agreement provided for an upfront payment to Harbour BioMed of \$25m, milestone achievement payments of up to \$325m and royalties on future sales of the drug by AstraZeneca.

ABL Bio & Sanofi (alpha-synuclein x IGF1R bsAb)

In January 2022, ABL Bio Corp and Sanofi announced a collaboration and licensing agreement for the rights to the bispecific antibody ABL301 being developed by ABL Bio and directed against the alpha-synuclein protein and insulin-like growth factor 1 receptor (IGF1R). The antibody is being developed for the treatment of Parkinson's disease and other potential indications associated with increased penetration of the blood-brain barrier. Under the agreement, ABL Bio is entitled to receive an initial payment of \$75m. In addition, if certain milestones are met, Sanofi will pay ABL Bio up to \$985m, of which a payment of \$45m is expected in the short term. The agreement also includes royalty provisions from future sales of the drug following successful registration and commercialisation. ABL Bio is responsible for further preclinical development and conducting Phase I clinical trials. Sanofi, on the other hand, will be obliged to continue the clinical development of the antibody in question.

Lava Therapeutics & Seagen (EGFR x TCRgd bsAb)

Another deal involves Lava Therapeutics' LAVA-1223 molecule, a bispecific antibody that recruits gamma delta T cells, a subpopulation (approximately 4%) of T cells characterised by expression of a TCR receptor composed of gamma and delta chains, as opposed to classical T cells with a TCR receptor composed of alpha and beta chains. LAVA-1223 recognises tumour cells with overexpression of the epidermal growth factor receptor (EGFR) and induces recruitment of gamma delta T cells, resulting in elimination of tumour cells.

Under the agreement, signed in September 2022, in exchange for an upfront fee of \$50m, potential milestone achievement payments of up to a total of \$650m, and royalties in the range of a few to several per cent on future sales of the drug, Seagen acquired the right to an exclusive licence for the further development and commercialisation of the said antibody, as well as the opportunity for further exclusive negotiations for a further two antibodies targeting distinct cancer targets.

Transactions made on molecules in the clinical development stage:

Kelun-Biotech & Merck & Co.

In May 2022, Kelun-Biotech entered into a licence agreement with Merck & Co./MSD granting an exclusive licence for the further development and commercialisation, excluding the Chinese territory, of an antibody-drug conjugate (ADC) molecule, under the name SKB-264/MK-2870. The molecule recognises the TROP-2 protein overexpressed on the surface of tumours and, at the time of signing, was being tested in Phase III clinical trials in patients with metastatic triple-negative breast cancer and in Phase II clinical trials in patients with non-small cell lung cancer and other advanced-stage solid tumours. The terms of the agreement provided for an upfront payment of \$47m, a potential \$1.36bn payment for achieving milestones, and royalties from future sales.

At the end of July 2022, the companies made a further announcement expanding their collaboration to include a second ADC-type molecule under development by Kelun-Biotech in clinical trials. The agreement was for a \$35m upfront fee, \$901m in potential milestone achievement fees and royalties from future sales, and guaranteed Merck exclusive global rights to further develop it.

In December 2022, the aforementioned collaboration was extended again to include a further seven ADC-type molecules with anti-cancer potential in preclinical testing. Based on this agreement, Kelun-Biotech will receive a \$175m upfront fee, potential cumulative milestone payments totalling up to \$9.3bn (when it relinquishes rights to the Chinese market) and will acquire royalty rights on future sales of any of the drug candidates. Merck has also indicated its intention to make an equity investment in Kelun-Biotech.

Innovent Biologics & Sanofi

In August 2022, Sanofi and Innovent Biologics entered into a strategic partnership to accelerate the development and availability of oncology drugs and expand Sanofi's presence in the Chinese market. Under this agreement, Sanofi plans to accelerate the development and commercialisation in China of its two anti-cancer molecules being tested in clinical trials, i.e. SAR408701 (tusamitamab ravtansine, an anti-CEACAM5 ADC) - which is in Phase III clinical trials - and SAR444245/THOR-707 (recombinant IL-2) - which is being tested in Phase II clinical trials, in combination with Innovent Biologics' PD1 checkpoint inhibitor sintilimab. Sanofi has committed to an equity investment of €300m through the subscription of new ordinary shares in Innovent Biologics.

Availability of new non-dilutive funding options

Given the Company's adopted and successful model of funding research and development work largely with non-dilutive capital in the form of grants, the Company monitors and identifies the availability of the aforementioned forms of R&D funding on an ongoing basis.

Innovative drug development projects, due to their pioneering nature, carry a high investment risk, but at the same time have great commercialisation potential. Thanks to the use of grant funding, the shaping of the Company's project portfolio can take place with minimal impact on the shareholder structure and minimisation of investment risk for all shareholders of the Company. Both national, European (administered by both Polish and EU agencies) and US funds are monitored.

In 2022, funding was available from the following sources:

- Horizon Europe 2021 - this programme provides support for innovation across the EU with a total budget of €95.5 billion. One sub-programme of particular interest to the Company is 'Mission: Cancer', aimed at co-funding oncology projects, with a budget of €255 million for 2021-22.
- The Medical Research Agency, set up to support clinical trials in Poland, has allocated PLN 250 million in 2022 for the development of targeted or personalised medicine based on cell therapies or protein products. Pure Biologics managed to secure PLN 65 million from this fund for phase 1 clinical trials for PB003g and PB004 projects.
- National Cancer Institute Clinical and Translational Exploratory/Developmental Studies (R21) – programme of the US government agency NIH (National Institutes of Health).

In addition, a schedule of competitions was announced in January 2023 as part of the European programme 'European Funds for the Modern Economy 2021-2027' (FENG), a continuation of the Intelligent Development 2014-2020 programme, which the Company has used and continues to use to co-finance R&D projects. The budget for this programme is EUR 7.9 billion. In February 2023, PARP announced the first competition under the SMART path, with an allocation of PLN 4.5 billion.

4. Information on the adopted development strategy of Pure Biologics Inc.

Implementation of own R&D projects

Pure Biologics' objective is to continuously deliver value to shareholders by 1) creating new projects for the development of innovative therapies in commercially attractive areas and 2) developing the current portfolio of highly innovative projects towards clinical stages, with the aim of significantly increasing the value of the assets at the commercialisation stage. Pure Biologics' ambition is to become a clinical-stage biotechnology company within the next two years.

Pure Biologics is developing original drugs with the potential to become first-in-class on the market. The company focuses on developing drug candidates in-house up to the lead candidate selection stage, in its state-of-the-art research facility and with a highly trained team of approximately 80 experts, approximately half of whom hold a PhD. In addition, Pure Biologics is building a strong international team of specialists who can lead preclinical development, manufacturing development (CMC), regulatory and safety issues, as well as clinical development of lead candidates by outsourcing.

A key element of Pure Biologics' strategy is so-called 'smart development' of drugs. Pure Biologics' projects are based on the ability to significantly improve drug candidates that have shown clear therapeutic potential at an early stage of clinical development in previously conducted clinical trials. Pure Biologics therefore undertakes the development of a drug candidate with a clear competitive advantage over other solutions under development, while largely reducing risk by building on a successful clinical development plan for similar molecules. Another aspect of 'smart development' is the creation of a clinical development pathway for each project with a strong focus on demonstrating signs of therapeutic efficacy at an early stage. Pure Biologics will focus on introducing phase 0 clinical trials in its projects to obtain pharmacodynamic data even before conventional phase 1-3 clinical trials are conducted. This will significantly increase the valuation of early-stage projects but will also guide the design of subsequent clinical phases, which will be based on active and multifaceted patient stratification, rather than studies involving broad populations, and include biomarkers as additional trial endpoints to demonstrate therapeutic activity. This aspect of the implementation of 'smart clinical development' will provide valuable pharmacodynamic data at an early stage of drug development to (1)

reduce the risk of failure of later, costly clinical stages and (2) significantly increase the valuation of early clinical development projects.

The development of contract research carried out by the Company for companies in the pharmaceutical and biotechnology sectors will support Pure Biologics' own contribution to the financing of R&D projects and motivate the search for new technologies and the development of research and scientific competence. Within the framework of contract research, the Company is planning, based on its results, scientific knowledge and experience gained in the course of its R&D work, to conduct joint projects with potential Partners for the commercialisation of the R&D projects carried out or their development in new extended applications.

Sources of funding in the Company's development strategy are own resources and subsidies from EU and national funds. Since the beginning of its operations, the Company has obtained a total of almost PLN 183,000 thousand in grants for the implementation of R&D projects. The Company's own contribution to the implementation of R&D projects is obtained from share issues carried out successively with the progress of research work and the realisation of milestones of individual project stages. Between 2018 and 2020, the Company carried out three share issues, raising an equity contribution of PLN 66,968 thousand for R&D projects.

Strategic financial objectives adopted in accordance with the schedule of ongoing R&D projects based on the provisions of the agreements concluded with NCBR, the Company plans to obtain the first proceeds from the commercialisation of individual projects after 2023. In view of the above, the Company should achieve its first revenues from upfront payments no earlier than in 2024, while subsequent years should see revenues related to the achievement of milestones planned for individual projects. However, at the date of publication of the report, the Company is not in a position to accurately determine the amounts of revenue from the commercialisation of individual projects.

The Company's dividend policy in the coming years is to prioritise the use of funds from commercial activities conducted in the contract research segment and equity raised through the issue of shares on the capital market in Poland to cover the Company's own participation in innovative R&D projects. Given the number and size of the R&D projects underway and the associated high level of need for an own contribution to supplement the funding received, the Company does not anticipate paying dividends until revenues from the commercialisation of the first successfully completed R&D projects are achieved. At the same time, due to the early stage of the Company's development and the ongoing need for additional capital, the Issuer's Board of Directors cannot determine the year in which it will first recommend the payment of dividends.

The Issuer is not party to any agreements or obligations that would restrict in any way the payment of dividends in the future.

Key means to implement the Issuer's strategy

Proprietary platforms for the generation of active biomolecules.

By independently developing technology platforms for antibody (PureSelect2) and aptamers (PureApta) selection, the company has two technologies for the rapid and efficient generation of new active biomolecules, i.e. antibodies and aptamers, which are the subject of further research for diagnostic tests or therapeutic molecules. In the course of further research, the generated biomolecules are being investigated for possible development into new drugs and biosensors. With the above, the Company has the opportunity to operate in three potential market segments in which it can commercialise the results of independently conducted research projects.

Focus on innovative therapies and patient needs

Pure Biologics focuses on developing innovative therapeutic solutions for patients in groups with highly unmet medical needs (HMEs). The Company's strategy includes identifying medical needs by analysing available therapeutic options and currently developing products and designing solutions with a clear competitive advantage. Pure Biologics develops next-generation antibodies for immuno-oncology, one of the most ground-breaking areas of modern cancer therapy. The company is also developing aptamers for therapeutic applications, a relatively young and promising class of molecules active in drugs and medical devices. On the basis of aptamers, it is planned to develop carrier-drug conjugates for oncology applications, particularly in indications where immunotherapy has not yet had significant success, as well as adsorbers for the selective removal of pathogenic molecules from the blood of patients suffering from inflammatory diseases.

Key share of public funding for research projects.

From the beginning of its operations to the date of the report, the Company has obtained approximately PLN 183,000 thousand in public funds, both domestic and European, for the development of research and development projects. The vast majority of this funding, more than 64%, was allocated between 2017 and 2020. During the period covered by this report (and up to the date of publication), the Company secured approximately PLN 64,880 thousand in grants from the Medical Research Agency to fund the continuation of work on PB003 and PB004 projects.

In-house, highly competent research and development team.

The Company's employees form a research and development team with broad competences and extensive experience gained in Polish and foreign units.

The company employs around 100 specialists, approximately 40% of whom hold doctoral degrees. Qualified staff, many years of experience and a focus on effective cooperation make it possible to both achieve milestones in own projects and - in parallel - to carry out commercial orders.

Possibility of reserving rights to all generated molecules.

Thanks to the specificity of the technology for generating active biomolecules (antibodies and aptamers), each newly generated molecule has a different amino acid or nucleotide sequence in the binding region of the molecular target. At the same time, each such sequence is recognised in patent law as an NCE (new chemical entity), which allows it to be covered by patent protection. The Issuer's aim is to take advantage of this specificity and extend patent protection to all molecules, both in terms of sequence and potential use. This will involve molecules that demonstrate efficacy in in vitro and early stage in vivo disease models. Due to its ownership of the intellectual property rights to its own libraries from which active molecules are generated, the Company has significant research and business opportunities in this area.

Cooperation with research and science centres.

In its ongoing projects, the Company actively cooperates with research centres located both in Poland and abroad. These include: Institute of Immunology and Experimental Therapy of the Polish Academy of Sciences (PAN) in Wrocław, University of Wrocław, University of Łódź, Warsaw Medical University - Department of Immunology, Faculty of Medicine, French Institute of Health and Medical Research - Immunology Research Center (France), Oslo University Hospital - Institute for Cancer Research (Norway).

In the past, Pure Biologics has also carried out joint projects with Vall d'Hebron Research Institute (Spain), Institut de Ciència de Materials de Barcelona (Spain), University of Artois (France), Ospedale San

Raffaele IRCCS (Italy), Institute of Experimental Physics SAS (Slovakia), AIT Austrian Institute of Technology GmbH (Austria), Albert-Ludwigs-Universität Freiburg (Germany), Imperial College Of Science Technology And Medicine in London (UK), Aarhus Universitet (Denmark) and Łukasiewicz Research Network - PORT Polish Centre for Technology Development.

Activities undertaken as part of the implementation of the development strategy (during the reported period)

Activities concerning the progress of the Company's R&D projects in the reporting period are presented in Chapter IV, point 7.

The measures relating to the incentive scheme and the employment stability policy, with particular reference to the Company's research and scientific staff and management under the Incentive Scheme, are set out in Note VII.32 "Share-based payments" of the Separate Financial Statements for the financial year ended 31.12.2022 attached to this report.

Activities including securing funds obtained from the basic sources of financing the Company's activities, i.e. subsidising institutions and own capital, with particular emphasis on funds from the capital market, are presented in the Financial Report for the period 01.01-31.12.2022. In December 2022, the Issuer conducted a public offering of a series E share issue, raising PLN 19 120 thousand gross for the implementation of ongoing R&D projects.

Development of research infrastructure

One of the Pure Biologics' goals in 2022 was to prepare and launch a new corporate headquarters. The work carried out resulted in the creation of a modern laboratory and office complex with a total area of almost 3,200 sq. m in one of the largest business parks in Poland, Business Garden in Wrocław. In the last quarter of 2022, 1,400sq m of laboratory space and 1,800sq m of office space were made available to the Company. The laboratory area consists of more than thirty highly specialised laboratories, a storage module and ancillary installations (such as an external carbon dioxide distribution system or a BMS management system). Part of the premises are brand new laboratories dedicated to the development of innovative, advanced research methods designed to broaden the Company's research portfolio. Due to the nature of the work being carried out, the Laboratory has been divided into three independent segments served from individual air handling units: cellular, microbiology and specialist laboratories.

In line with the approved development plan including the commissioning of a new laboratory and office complex, the process of acquiring the necessary laboratory equipment was carried out. The verified requirements were categorised by relevance to research processes, and only critical equipment was acquired, including ice makers, water treatment stations, autoclaves, refrigeration equipment and a multifunctional plate spectrophotometer, among others. Critical infrastructure has been secured by providing access to a duplicate device in the event of a failure or by signing an appropriate service agreement for priority handling of requests.

In line with the intensification of preclinical phase research work, the machinery of the cell laboratories was also expanded. Three shakers adapted to the multiplication of eukaryotic suspension cultures were purchased, and 80% of the original purchase plans for incubators and laminar chambers were realised, thus enabling the project objectives to be met by the deadline set. Equipment has been distributed in a way that is optimal for the research work in progress in dedicated subject labs, and equipment involved in many independent processes has been placed in shared rooms.

The remainder of the complex is made up of office and conference facilities, comprising: three areas for collaborative work (open space), individual offices, seven fully equipped conference rooms, including two rooms that can be combined into one large auditorium.

In order to optimise the use of office resources, the Company has implemented a dedicated conference room booking system, compatible with calendar services (M365, Google, among others) equipped with an automatic cancellation function in the event of no-shows in a particular room. This solution has enabled the Company to reduce the necessary number of meeting rooms to a minimum while making optimum use of the available rooms. Each of the rooms is equipped with high-definition screens, conference systems or Mersive remote sharing and presentation systems, which allows several meeting participants to share and collaborate wirelessly around content. In addition, the three meeting rooms were equipped with the function of controlling roller blinds, screens, the projector, light intensity or sound directly from the control panel.

As part of the increased and improved security at the new site, a new secure IT infrastructure with wired (LAN) and wireless (WLAN) network covering the entire area was provided, managed by state-of-the-art server rooms and intermediate distribution points, based on a fibre optic infrastructure. High-speed Internet, based on symmetrical optical fibre with independent backup connection. The area is monitored by 24 IP cameras, with the possibility of increasing the number of cameras, and managed by an internal access control system with the possibility of demarcating access rights to each section and IP monitoring.

Despite the difficult geopolitical and economic situation, the project for the Company's new headquarters was completed on schedule well below budget, achieving a saving of 25% over the original assumptions.

At the beginning of November 2022, the commissioning phase began, adapting the equipment and building capabilities to the requirements. Details are described in the section 'Commissioning of the new laboratory and office complex'.

Assessment of the feasibility of strategic intentions

When analysing the information on the Issuer's strategy presented in the Report, it should be borne in mind that the degree to which the described intentions are realised is largely dependent on the global economic situation. As at the date of publication of the Report, the Management Board does not foresee any direct, significantly negative impact of the coronavirus pandemic (SARS-CoV-2) on the Company's operations, financial position and R&D project results in the annual period. The outbreak of the armed conflict in Ukraine will have an indirect impact on Pure Biologics S.A.'s financial position. The exact impact of the armed conflict in Ukraine is described in chap. VII para. 10.

However, it cannot be ruled out that periods of business restrictions, the expansion and prolongation of the armed conflict in Ukraine, may in the long term negatively affect the financial situation and the pace of results in R&D projects. The Board is monitoring the situation on an ongoing basis and will react accordingly to mitigate the impact of these events if they occur.

Prospects for the development of the Issuer's business in the coming financial year

In 2023. The Company continues to implement the strategy implemented in the previous year for immuno-oncology projects involving phase 0 clinical trials as an intermediate step prior to traditional phases 1-3. This allows early assessment of therapeutic efficacy in the complex tumour environment and provides a cost-effective decision point prior to further expensive clinical trials. On the basis of consultation with the recipients of the assets under development, the above also constitutes an attractive decision-making element for the conclusion of partnership agreements. Promising results

obtained for flagship projects (PB003a, PB003g and PB004) and the secured access to substantial non-dilutive funds will enable lead molecules to be produced this year and subjected to preclinical testing for safety and anti-tumour efficacy, with a view to commencing clinical development with entry into Phase 0 in December.

Given the market conditions, the Company has redirected its activities in the area of aptamer-based extracorporeal therapies, from the development of targeted plasmapheresis products for niche markets, to products for the treatment of chronic conditions, including targeted haemodialysis for patients with chronic kidney disease, which represents an urgent and unmet medical need for innovative treatments in a large and growing market.

Aiming at the reproducibility of the business model, in addition to the intensification of business development activities leading to the commercialisation of the projects in progress, the Company is working on the conceptualisation of new drug development programmes and plans to start implementing them as early as 2023, upon receipt of funding under the FENG perspective. The expansion of the current project portfolio will allow Pure Biologics to effectively utilise its scientific-technological, infrastructural and operational potential in order to be able to lead to further partnership deals with pharmaceutical companies in the future.

5. Description of operations of Pure Biologics Inc.

Subject of the Issuer's activity

Pure Biologics specialises in research and development in the field of innovative biological medicines, medical devices with therapeutic and diagnostic applications. The Company also conducts contract research for pharmaceutical and biotechnology companies particularly in the area of selection of active molecules (antibodies and aptamers) for medical applications (drugs and therapeutic procedures, diagnostics).

Fig. 3: Scope of activity of the Company.

Innovative segment	Contract research segment
<p>Own R&D projects – innovative biomedical solutions</p> <ul style="list-style-type: none"> • Biopharmaceuticals • Therapeutic medical devices • Diagnostic particles 	<p>Contract research for pharmaceutical companies</p> <ul style="list-style-type: none"> • Gaining experience • Cooperation with big pharmaceutical companies – both polish and foreign

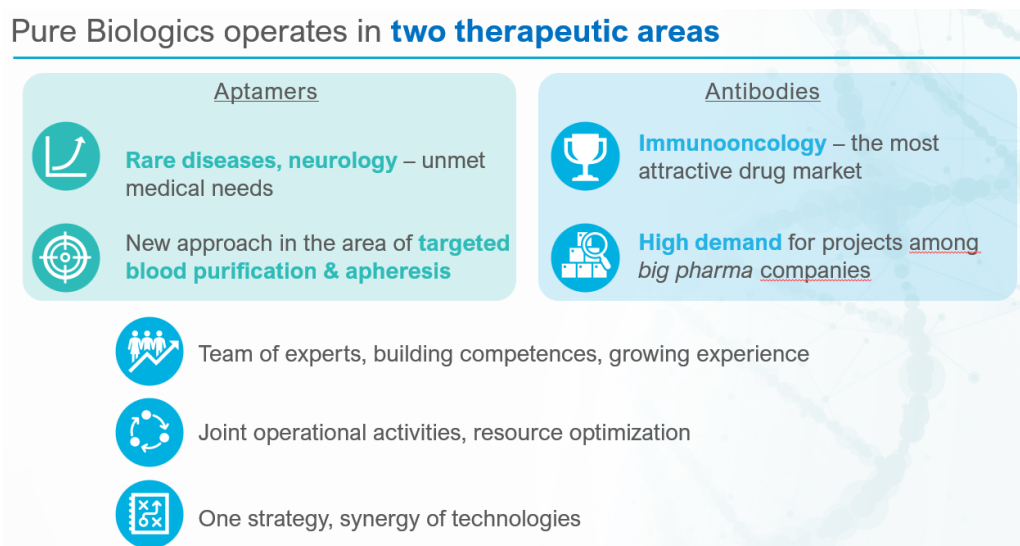
Development of innovative drugs and therapies

The company's core business is the development of new drugs, extracorporeal therapies and diagnostic methods based on its extensive experience in areas such as molecular biology, cell biology, protein engineering and biochemistry, kinetics of biochemical interactions, pharmacology of biological molecules, or in vitro selections from combinatorial libraries.

The work focuses on the study of molecules (proteins and nucleic acids, i.e. aptamers) and their use in specific environments and conditions. The Company targets projects that develop active molecules that are first-in-class in the category of drugs and therapeutic solutions. This translates into minimising the

risk that competitors achieve positive results in development programmes for drugs with an identical or highly similar mechanism of action earlier.

Fig. 4: Scope of activity of the Company.



The Company's in-house Business Intelligence Team monitors the thematic areas of research conducted by other entities and the results obtained by them, based on publicly available information and industry knowledge.

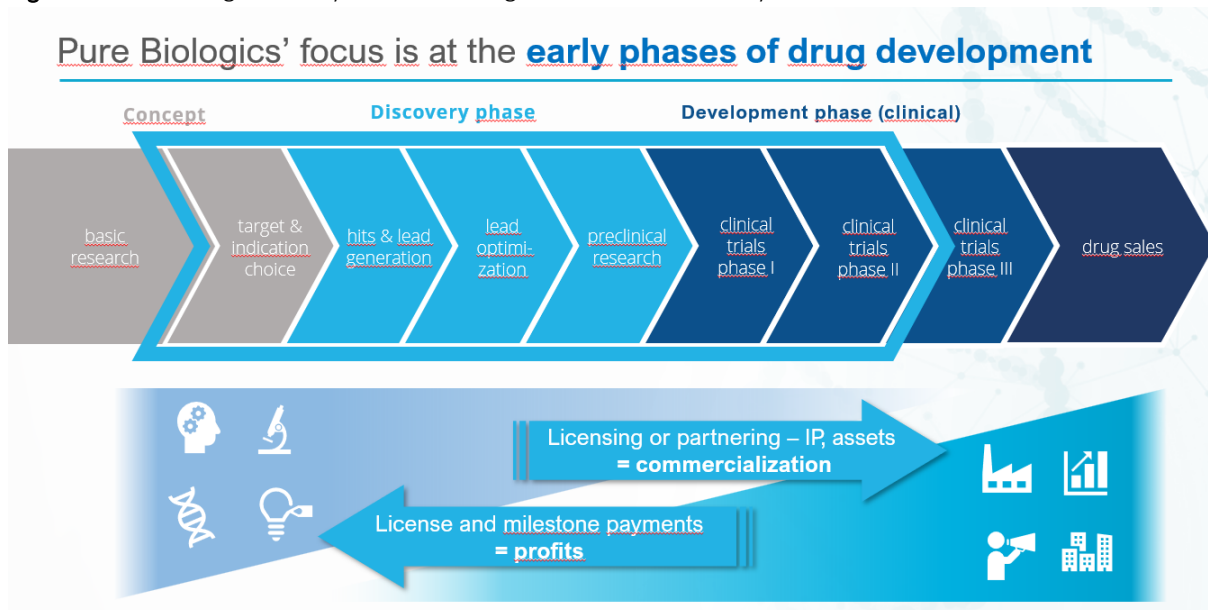
Research and development programmes

Pure Biologics' activities focus on two areas: (1) the development of advanced antibody-based cancer immunotherapy drugs; (2) the use of aptamers for the development of innovative anti-cancer drugs and medical devices for patients with inflammatory diseases. All projects in Pure Biologics' portfolio have in common the aspect of modulating the function of the immune system in order to achieve a therapeutic effect.

The first area (projects PB001, PB003 and PB004) develops next-generation antibodies - bispecific antibodies, bifunctional molecules and molecular target binding molecules with novel formats to improve their pharmacokinetic properties. These molecules are supposed to interact with immune cells in the tumour microenvironment in order to activate them to kill tumour cells or to lift the immune blockade induced by the tumour. For the discovery of molecular target binding sequences used in the design of next-generation antibodies, Pure Biologics uses a proprietary technology platform, its own scFv antibody fragment library, in addition to libraries licensed from Twist Biopharma.

The second business area (projects PB002, PB005, PB006 and PB103) uses aptamers to create innovative therapeutic solutions - aptamer-drug conjugates for oncology and adsorbers that selectively remove pathogenic molecules from patients' blood for applications in neurology and nephrology. Pure Biologics has a proprietary, patented technology platform, PureApta, for aptamer selection and is one of the few companies worldwide developing aptamers for therapeutic use. As aptamers are a relatively young class of drugs, the Company is also conducting internal technology projects, including research into improving aptamer stability and investigating the safety of modified nucleotides.

Fig. 5: Phases of drug discovery and Pure Biologics Inc.'s area of activity



Innovative R&D projects supported by grants

Pure Biologics actively uses public funds to support R&D activities in companies and has repeatedly successfully applied for funding for its projects at both the NCBR and the European Commission. Only in the period 2018-2019, the Company obtained nearly PLN 106 million in funding for the implementation of projects scheduled for 2018-2023.

At the beginning of 2023 (after the reporting period), the company received funding from the Medical Research Agency for the implementation of two projects with a total value of PLN 97 795 000 and ABM funding of PLN 64 879 000, selected in the competition ABM/2022/5. Funds under the projects can be spent between 2022 and 2026.

- The project 'Phase 1 clinical trial to investigate the safety, tolerability and efficacy of a bispecific compound in patients with advanced solid tumours', a development of the PB003 project (next stages), with a total value of PLN 48 897 000 was awarded funding in the amount of PLN 32 440 000.
- The second project, "Phase 1 clinical trial of the first-in-class bispecific molecule ROR1xCD16 in patients with B-cell lymphoid malignancies" which is an extension of the PB004 project (next stages). The total value of the project is PLN 48 897 000, with ABM's allocated funding of PLN 32 439 000.

Science and technology projects

The objective of the scientific and technological projects carried out by the Company is the continuous development of competencies based on proprietary solutions and maximising the areas of IP and know-how utilisation. The implementation of this objective includes testing platforms developed by the Company, exploring the possibilities of their commercial applications beyond those arising from the Company's own drug and therapy development projects, and exchanging knowledge and experience between recognised foreign scientific and research units and teams in Europe and worldwide. The collaboration carried out on research projects builds international relationships and provides references for the research concepts and subject matter expertise of Pure Biologics' scientists. Following the initial

commercialisation of the Company's major projects, these activities form the basis for initiating and developing further ultra-innovative programmes in the future.

Contract research

Pure Biologics is a leader in in vitro antibody and aptamer selection technology on the Polish market and is also one of the few commercial entities acting in this field in Europe. Thanks to its research and development projects (technology platforms), it has a real opportunity to further strengthen its market position. In vitro selection is an efficient and cost-optimal way to obtain active molecules (antibodies and aptamers) that bind a selected molecular target. This is both the basis for the development of biological drugs and diagnostic tests for internal projects, and technology that can be successfully used for the provision of external contract research, the volume and margins of which will multiply when the above platforms are used as a service.

Pure Biologics' extensive expertise and solid scientific basis, together with the innovation and uniqueness of the technological solutions it offers, means that it is able to carry out complete drug development projects on behalf of pharmaceutical companies, from the discovery stage through to early pre-clinical testing.

Human resources, infrastructural facilities and standards allowing for the commercialisation of R&D projects

The company has modern and well-equipped laboratory and office facilities, with a staff of 72 researchers, 44% with a doctoral degree (a total of 83 specialists directly serving the scientific and research segment).

The laboratory is housed in an area of 1,400 sq. m. The laboratory area consists of more than thirty highly specialised laboratories, a storage module and auxiliary installations (such as an external carbon dioxide distribution system or a BMS management system). Some of the rooms are brand new laboratories dedicated to the development of innovative, advanced research methods designed to broaden the Company's research portfolio. Due to the nature of the work being carried out, the Laboratory has been divided into three independent segments serviced from individual air handling units: cellular, microbiology and specialist laboratories.

The company employs staff under employment contracts and also outsources activities under civil law contracts. As at 31 December 2022, 96 people were employed under employment contracts. In addition, as at 31 December 2022, there were 6 persons working under other civil law contracts (mandate contracts, contracts for specific work and cooperation agreements with self-employed persons).

Competitive advantages

Focusing on a "me-better" approach

The company is building a portfolio of drug and medical device development projects based on the following assumptions:

- Each project addresses an important medical need for patients and doctors;
- Each project has clear market potential and is attractive for third party licensing in the early stages of clinical development;
- The therapeutic solutions proposed in each project are a significant improvement on current and developing therapies, while having the potential to be first-in-class solutions;
- In addition to the standard safety assessment, each project places great emphasis on demonstrating signs of therapeutic efficacy in the early phases of clinical development (phases 0 and 1).

Building a portfolio of projects on a 'me-better' concept, based on studies of original drugs and therapies previously conducted successfully, significantly reduces the risks associated with clinical development failure, while retaining the potential of a 'first-in-class' asset.

Pure Biologics is focusing on demonstrating early signs of therapeutic efficacy in clinical trial phases 0 and 1 through appropriate patient selection, use of biomarkers, etc., which will significantly increase the valuation of the project in the context of its subsequent commercialisation and allow a more accurate assessment of the probability of success of the costly phases 2 and 3 of clinical development.

The Company expects that the current strategy will translate into higher value assets generated in a shorter timeframe, a faster regulatory pathway, a higher probability of commercialisation and minimisation of risk due to previous positive results obtained by competitors in drug development programmes with a similar mechanism of action.

Unique expertise in the areas of antibody and aptamer selection and protein production and analysis

Of the top ten best-selling drugs in the world, eight are protein drugs, including antibodies. To the knowledge of the Management Board based on publicly available information, the Issuer is the only commercial entity with proprietary antibody and aptamer selection technologies in Poland and one of the few entities working on these issues worldwide. Due to the degree of advancement of its own research and development projects, the Issuer has a real opportunity to strengthen its market position.

Research projects in the field of immuno-oncology, a ground-breaking concept in the fight against cancer

The Company's own research projects focus on the search for therapies and drugs to support the human immune system. This line of research in cancer treatment has become the most important in the fight against cancer in recent years. Immuno-oncology therapies brought to market are rarely limited to the treatment of a single type of cancer, proving to be effective in at least several types of disease, which significantly increases their scope of application and the number of potential patients. The use of so-called combination therapies, which use a combination of two different therapies (either both from the field of immuno-oncology or combining immuno-oncology drugs with classical anticancer therapies, e.g. chemo- or radiotherapy), is also an important issue, further broadening the spectrum of indications for drugs of this type. Given the development of immuno-oncology in recent years, which has been systematically confirmed by partnering and licensing deals that dominate the pharmaceutical market in terms of value, the future positive results of the Company's research projects can be qualified among the assets with significant profit potential.

Research projects for the treatment of rare inflammatory diseases

The second therapeutic area of interest to Pure Biologics is inflammatory diseases. It is a heterogeneous group of diseases with diverse aetiologies, but whose common denominator is the severity of the inflammatory processes responsible for the symptoms and complications of the disease. PB103 project is aimed at chronic kidney disease patients on haemodialysis, who number approximately 2 million worldwide, estimated to represent only 10% of chronic kidney disease patients, so the number of patients is expected to increase in the coming years. Many diseases classified as rare (orphan diseases) also have an inflammatory basis. These are conditions that are most often genetically determined, have a population prevalence of less than five per ten thousand (less than 0.5‰), and mostly manifest themselves in childhood. There are more than six thousand described rare diseases worldwide, and they are usually linked by (i) a severe course and high mortality, (ii) as well as low public awareness, including among medical personnel, and (iii) a significant shortage of effective therapies - to date, therapies exist for only about 5% of these conditions. The total number of rare disease patients in Europe is estimated to be more than 6% of the population in Europe, or more than 30 million people. Due to the social impact and cost of care, there is significant social, administrative and institutional support for the development of new therapies to treat rare diseases. Projects PB002 and PB005 address the needs of patients with Devic's Syndrome and myasthenia gravis, respectively, classified as rare inflammatory diseases.

Total control over the key discovery phase of drug development

The Company's expertise allows it to carry out drug and therapeutic medical device development projects from the molecular target selection phase up to and including the in vitro testing phase, based entirely on its own scientific and technological resources. This ensures full independence in the sourcing (licensing) of drug candidates from other R&D entities or universities and from services provided by external companies up to the pre-clinical testing stage. This translates into control and confidentiality of the research being conducted at all stages, particularly in its initial, most sensitive phase. The provision of funds, including from NCBR and ABM funding, to carry out research in the above projects up to the first phase of clinical trials (pre-clinical studies are outsourced to specialised CROs) means that the projects under development will only be able to be commercialised when their value is high.

Ability to generate large numbers of new lead molecules through self-designed technology platforms

Technology platforms developed by the Company, PureSelect2 (formerly PureSelect) and PureApta, allow in vitro techniques (without immunization of animals), and thus relatively quickly and at relatively low cost, to generate, each time, numerous biomolecules that bind a molecular target - antibodies and aptamers, respectively. From the broad pool of molecules generated, those variants are selected that have parameters best suited to the task at hand and can be further optimised. Importantly, these platforms can work in parallel on multiple molecular targets and allow the early research phase of the project (the so-called hit generation phase) to be significantly shortened.

6. Information on major achievements in research and development

Introduction

2022 was a very productive year for Pure Biologics. A new strategy for immuno-oncology projects was implemented at the beginning of the year, with access to significant non-dilutive funding for the continuation of two flagship projects (PB003g and PB004), and significant progress has been made in major research and development projects. In addition, the Company has redirected its activities in the area of extracorporeal therapies using aptamers, from the development of targeted plasmapheresis products for niche markets, to products for the treatment of chronic conditions, including targeted haemodialysis for patients with chronic kidney disease, which represents an urgent and unmet medical need for innovative treatments in a large and growing market.

Pure Biologics has developed and implemented a research strategy in its projects that bypasses the so-called 'translation gap' between preclinical development and human use of the drug. Drug development based on cellular testing and mouse models of cancer translates poorly into therapeutic efficacy in humans, which is a major obstacle to the development of new drugs. Building a project portfolio based on molecular targets with a proven research history and promising early clinical phase results, Pure Biologics minimises the risk of the immuno-oncology project portfolio declining in clinical development, while retaining the potential of first-in-class (FIC) molecules. In addition, Pure Biologics has implemented phase 0 clinical trials in its projects, as an intermediate step before the traditional phases 1-3. Phase 0 testing, in the form of intra-tumoural micro-dose administration of a drug candidate, allows early assessment of therapeutic efficacy in the complex human tumour environment and also provides a cost-effective decision point prior to further expensive clinical trials. In addition, the acquisition of pharmacodynamic data in humans significantly increases the value of the project at an early stage of development, maximising the chance of commercialisation of the project. Finally, Pure Biologics has implemented a smart clinical development strategy for its immuno-oncology projects in which, instead of an all-comers phase 1 study (i.e. without patient stratification), it intends to focus on recruiting patients whose tumour characteristics match the biology of the drug candidate to increase the chances of observing a therapeutic response as early as the first stage of clinical development. Optimising the chances of success in early clinical development will greatly enhance the commercialisation potential of the project.

Pure Biologics' immuno-oncology portfolio currently includes four antibody-based projects: PB001, PB003a, PB003g and PB004, each aimed at overcoming immunosuppression - the main obstacle to the elimination of cancer cells by the human immune system.

PB001 project aims to reverse the depletion of cytotoxic immune cells by blocking the TIM-3 receptor, while increasing the exposure of tumour cells to the immune system through antigen present on their surface. The project generated unique and patentable anti-TIM-3 antibodies using PureSelect2 platform, which are currently being tested in in vitro assays. In vivo testing, to confirm the anticancer potential of the antibodies, is planned for the first half of 2023.

PB003 project, which aims to eliminate both tumour cells and immunosuppressive Treg cells by targeting proteins that regulate the activity of immunosuppressive TGF β 1, has been split into two separate drug development projects: PB003a and PB003g.

Project PB003a is developing a so-called bifunctional fusion protein (BFP) that allows cytotoxic immune cells to simultaneously eliminate Treg cells and cancer cells by targeting integrin α V β 8. It has been

confirmed that the BFP format can be produced in a stable form that offers a significant advantage in the elimination of competent cells compared to conventional therapeutic antibody formats. A series of in vivo studies are currently underway to confirm the efficacy and safety profiles of treatment with PB003a.

Project PB003g is developing a bifunctional fusion protein that will activate immune cells to kill immunosuppressive Treg cells and cancer cells by interacting with the glycoprotein A repetitions predominant protein (GARP). A series of unique anti-GARP BFP molecules were developed to select a leading PB003G candidate for clinical development. In vitro, these molecules show a favourable therapeutic profile compared to anti-GARP antibodies currently in early clinical development. The project is on track to administer the first dose to patients in a Phase 0 clinical trial in the fourth quarter of 2023. Additionally, Pure Biologics has secured a PLN 32 million grant from the Medical Research Agency to fund a Phase 1 clinical trial in patients with solid tumours.

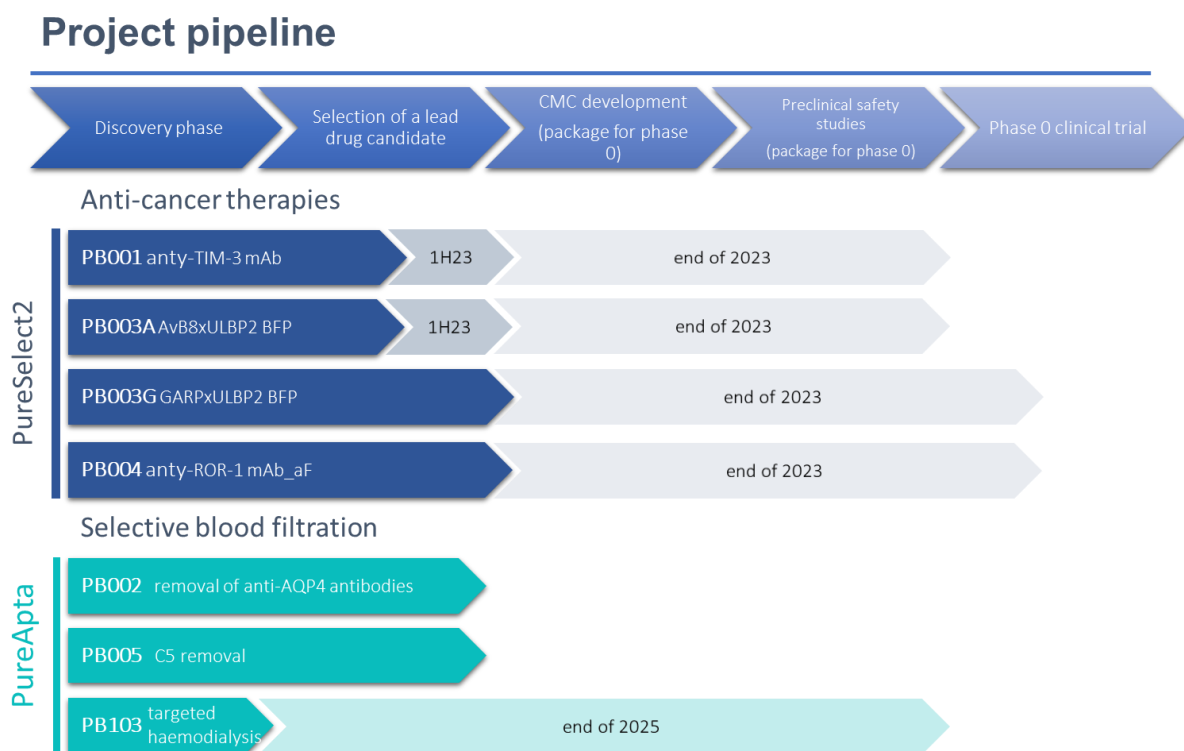
In project PB004 Pure Biologics is developing a therapeutic molecule that actively engages natural killer cells (NK cells) in the elimination of cancer cells presenting the ROR1 antigen on their surface. An afucosylated anti-ROR1 antibody and a proprietary therapeutic format in the form of a long-acting bi-specific killer engager (BiKE) molecule have demonstrated the potential to induce cancer cell killing significantly higher than competing antibodies currently in early clinical development. Patentable anti-ROR1 antibodies have been produced in an afucosylated form, which means they are optimised for their ability to activate cell death with expression of the molecular target. Lead candidate selection is scheduled for the first quarter of 2023. PB004 is aiming to administer the first dose to patients in a phase 0 study in the fourth quarter of 2023. Additionally, Pure Biologics has secured a PLN 32 million grant from the Medical Research Agency to fund a phase 1 clinical trial in patients with haematological malignancies.

Pure Biologics' aptamer project portfolio, consisting of projects PB002, PB005 and PB103, aims to improve the treatment of patients suffering from diseases with significant inflammation involved in their course, Neuromyelitis optica (NMO), Myasthenia gravis (MG) and chronic kidney disease, respectively, through the development of selective extrarenal therapies.

Project PB002 successfully developed a prototype adsorber for which the ability to selectively capture a molecular target was confirmed ex vivo, as well as other properties relevant to the medical device application, including microbiological purity. The technology developed from project PB002 will now be used for project PB103 which has a much greater market potential due to its large patient target group (approximately 2 million haemodialysis patients worldwide).

Project PB005 generated a stable aptamer that selectively captures complement protein C5 from human plasma. Due to changes in the business environment in the area of myasthenia gravis therapy, the outcome of project PB005 will also be redirected to the therapy of patients with chronic kidney disease, a huge unmet medical need. Project PB103 was launched in mid-2022 to develop a medical device for the active removal of selected uremic toxins from the blood of haemodialysis patients and has the potential to revolutionise the quality of life in this group of patients, for whom no significant breakthrough has been made in recent decades. So far, the project has successfully selected an aptamer for one of the new molecular targets. PB103 is being implemented in partnership with the Dutch company Relitech B.V.

Fig. 6: Progress of the projects.



Antibody-based immuno-oncology drug development projects

Figure 7: Antibody-based projects.

Project's name	therapeutic area	indication	active molecule
PB001	immuno-oncology	solid tumours, e.g. cancer of the colon and rectum (CRC)	bispecific antibody TIM3xTTA
PB003a	immuno-oncology	solid tumours, e.g. non-small cell lung cancer (NSCLC)	bifunctional anti- α V β 8 fusion protein (antibody-immunoligand)
PB003g	immuno-oncology	solid tumours, e.g. non-small cell lung cancer (NSCLC)	bifunctional anti-GARP fusion protein (antibody-immunoligand)
PB004	immuno-oncology	haematological malignancies	afucosylated anti-ROR1 antibody

PB001 Drug development project (MultiBody)

Aim of the project

The PB001 (MultiBody) project aims to develop a therapeutic antibody with dual activity for the treatment of cancer. PB001 will be a first-in-class bispecific antibody that simultaneously binds the TIM-3 protein on immune cells and a yet undisclosed antigen on the surface of tumour-associated antigen (TAA) - bsAb TIM-3xTAA. Depletion of cytotoxic immune cells is a major obstacle to immune surveillance of cancer. TIM-3 on the surface of cytotoxic T lymphocytes (CTL) and natural killer (NK) cells, plays a key role in the depletion phenomenon. By targeting TIM-3, PB001 is designed to 'release the brakes' on CTL and NK cells in cancer patients, in order to eliminate cancer cells more effectively. At the same time, PB001 will directly attack cancer cells, exposing them to the immune system and creating anchor points for cytotoxic cells. PB001 will find application in the treatment of colon cancer, which is one of the malignancies defined as an 'unmet medical need' and at the same time it is a market-active therapeutic area with many partnering and licensing deals being observed.

Financing

The project is co-financed by the National Centre for Research and Development (NCBR) under the Intelligent Development 2014-2020 programme. According to the co-financing agreement, the total cost of the project is PLN 32,037 thousand, and the value of the grant is PLN 23,998 thousand. The Company's own contribution in the amount of PLN 8,002 thousand is covered by the Company from the capital obtained as part of the issued shares.

Implementation and results of the project in the reported period

In 2022, project PB001 focused on the study of a model bispecific antibody (bsAb) TIM3xTAA designed by Pure Biologics to validate the mechanism of action of the selected drug format. At the same time, work focused on the selection of unique TIM3 and TAA binding sequences to form the basis for the development of a proprietary bispecific molecule for further preclinical and clinical development. An analysis of the safety results of the bispecific model molecule in a mouse model was completed in early 2022. The study showed no toxicity of the molecule and thus confirmed the favourable safety profile of the drug under development. Further analysis of the pharmacodynamic potential of TIM3xTAA in cell-based assays has shown that the TIM3xTAA format may not enhance the anti-tumour activity of cytotoxic immune cells compared to classical anti-TIM3 antibodies currently in clinical development. A final decision on the further development of the investigational therapeutic format of TIM3xTAA will be made following an in vivo study in a mouse tumour model scheduled for June 2023.

Recent literature reports indicate that blocking TIM3 may abolish the role of this receptor in overstimulating the sensitivity threshold of cytotoxic cells to signals that activate them to kill cancer cells. Therefore, as part of the development of an alternative therapeutic strategy, Pure Biologics is developing patentable anti-TIM3 antibodies discovered through selection by phage presentation from Twist Biopharma libraries and its own Pure Biologics' ScFv fragment library. Molecules in IgG format were subjected to a series of biophysical (bio-layer interferometry, BLI) and flow cytometry-based analyses to determine the binding characteristics of the molecular target immobilised on the sensor and on the cell surface. The results identified 13 candidates that bind TIM3 with specificity and affinity similar to the clinically developed molecules Sabatolimab (Novartis) and Sym023 (Symphogen).

Analysis of the above panel of molecules for their mechanism of action in a cellular reporter assay has identified a potential candidate for preclinical testing named **PB001.TM14**. In the next steps, further analysis of the molecule is planned, including characterisation of stability and chemistry, manufacturing and controls (CMC) potential for the drug development process. In addition, the therapeutic efficacy

and safety of the candidate in preclinical studies will be assessed. A study to test the safety and efficacy of PB001.TM14 in humanised tumour-injected mice is scheduled for June 2023. Based on the results of the said study, a decision will be made on the patenting of the sequence and further development of the PB001.TM14 molecule.

Project work planned for 2023

In 2023, further in vitro studies and an in vivo study in a humanised mouse model are planned to comprehensively assess the potential of the molecule under development against reference antibodies currently in clinical development.

Drug development project PB003 (PureActivator)

Division of project PB003 into two parallel drug development projects

Project PB003 worked on the development of molecules targeting proteins associated with the immunosuppressive activity of TGF β 1. The promising in vitro efficacy results obtained for both molecular targets α V β 8 and the GARP- TGF β 1 complex, prompted the derivation of two parallel development pathways: PB003a and PB003g, characterised by independent commercialisation potential.

Drug development project PB003a

Aim of the project

Project PB003a aims to develop an anti-cancer drug in the format of a bifunctional molecule that specifically recognises the α V β 8 integrin, with significantly better properties than traditional therapeutic antibodies targeting α V β 8 currently in preclinical and early clinical development (e.g. molecule PF-06940434, Pfizer). Integrin α V β 8 plays a key role in the inhibition by regulatory T cells (Treg) of lymphocyte cytotoxicity against tumour cells. While the mechanism of action of competing drug candidates is to block α V β 8 activity to reduce immunosuppression in the tumour environment, Project PB003a aims to develop a much more effective drug candidate that kills α V β 8-mediated Treg cells. As α V β 8 is also overproduced on cells of various tumour types (e.g. lung, colorectal, head and neck, breast), PB003a will also directly induce the killing of tumour cells by cytotoxic lymphocytes, resulting in much more effective anti-cancer therapy. To achieve this, drug candidate PB003a is being developed in the form of a so-called bi-functional therapeutic molecule (bifunctional fusion protein, BFP), in which a traditional antibody will be combined with ULBP2, the natural immunoligand of the NKG2D receptor present on most cytotoxic NK and T cells in the tumour environment. This unique therapeutic format will not only demonstrate a qualitative advantage over conventional antibodies, but will also lead to the recruitment of significantly more cytotoxic cells, potentially translating into greater efficacy.

Project PB003a aims to develop a lead drug candidate that will enter a Phase 0 clinical trial by the end of 2023. The implementation of the Phase 0 study, as the first stage of clinical development of immuno-oncology projects, is in line with Pure Biologics' 'smart clinical development' strategy of capturing valuable pharmacodynamic data at an early clinical stage to 1) reduce the risk of failure of later, costly phases of clinical trials, and 2) significantly increase the value of the project in a more cost-effective manner compared to conventional Phase 1-3-based clinical development, with the benefit of future commercialisation of the project.

Financing

Project PB003a (as part of PB003) is co-financed by the National Centre for Research and Development (NCBR) under the Intelligent Development 2014-2020 programme. According to the co-financing agreement, the total cost of the project (PB003a and g) is PLN 39 905 000, and the value of the grant is PLN 30,969,000. The eligibility period for costs lasts until 31 December 2023. The Company's own contribution amounting to PLN 8,969,000 the Company intends to cover this from the capital raised through the conducted share issues.

In July 2022, the Company submitted a request to the NCRD for amendments to the project application, which included the inclusion of model molecule studies and the change of the Phase 1 clinical trial to Phase 0 as the endpoint of the NCRD-funded project. The phase 0 clinical trial will involve injecting microdoses of the drug directly into tumours and will positively and cost-effectively impact the commercialisation potential of the project.

Implementation and results of the project in the reported period

In 2022 project PB003a focused on two areas of development: (1) on confirming the mechanism of action of bifunctional molecules (BFPs) in vitro and in vivo using model molecules targeting $\alpha V\beta 8$ based on sequences available in the public domain, and (2) on obtaining unique molecular target binding sequences to develop a lead drug candidate against $\alpha V\beta 8$ for preclinical and clinical development.

Model bifunctional molecules directed against $\alpha V\beta 8$, based on known molecular target binding sequences from the literature, were tested in in vitro assays to confirm efficacy (cancer cell killing), safety (specificity) and stability of the BFP format. It was confirmed that BFP could be produced in cell lines used for the production of biological drugs. Furthermore, BFP molecules were stable in both buffers and serum, indicating that the bifunctional molecule format is suitable for further development of large-scale production (CMC). Cellular and biophysical assays confirmed the binding of model molecules to molecular targets, the $\alpha V\beta 8$ integrin and the NKG2D receptor, and the absence of undesired binding to proteins homologous to $\alpha V\beta 8$, primarily $\alpha V\beta 6$, demonstrating the selectivity of the molecules. Furthermore, by forming a triple complex between the antibodies and $\alpha V\beta 8$ and NKG2D, the bifunctional molecules were confirmed to be able to bind both molecular targets simultaneously, which is essential for the presumed action of the BFP molecule and the killing of Treg and tumour cells. This also confirms that the attachment of an immunoligand to the antibody does not affect the binding of the molecular target $\alpha V\beta 8$. Binding of model molecules to Fc γ R receptors, which directly affects the cell killing capacity, and to the receptor FcRn (neonatal receptor Fc) affecting the half-life of antibodies in the patient's bloodstream was investigated and confirmed. Binding to the FcRn receptor and further in vivo studies in a genetically engineered mouse model expressing the human FcRn receptor provide the basis for determining the half-life of the molecules in a clinical setting.

In in vitro functional assays, the model molecule was shown to be superior to the monoclonal antibody PF-06940434 (Pfizer), which is currently the most advanced molecule in development targeting $\alpha V\beta 8$ (phase 1 clinical trial). While the BFP molecule was as effective as PF-06940434 in the $\alpha V\beta 8$ function inhibition assay, only BFP developed by Pure Biologics can effectively stimulate cytotoxic immune cells to kill cells expressing the molecular target, highlighting the superiority of the BFP concept over a traditional antibody.

To be able to test bifunctional molecules in animals, cross-reactivity of the model BFP with $\alpha V\beta 8$ proteins from mice and monkeys was confirmed. The tolerance of the bifunctional molecule, as well as the half-life of the model molecules, was assessed using genetically modified mice with the human FcRn receptor (neonatal Fc receptor; The Jackson Laboratories, USA). Preliminary tolerability studies have

shown that the molecule in BFP format is safe at doses of 3 and 10 mg/kg; no clinical abnormalities were observed in mice. The pharmacokinetics (PK) data obtained in the study of the molecule are currently being analysed. In order to obtain data on the anti-tumour efficacy of BFP molecules, in vivo studies using model molecules are currently being conducted on humanised mice implanted with tumour cells expressing $\alpha V\beta 8$. The Company expects the results of the aforementioned studies in Q1 2023.

In parallel with the study of model molecules, intensive work continued on the development of proprietary anti- $\alpha V\beta 8$ therapeutic molecules, using licensed phage libraries from Twist Bioscience. In the past year, the Company has produced 60 antibodies in IgG1 format recognizing the $\alpha V\beta 8$ integrin as a result of selections. The resulting molecules have been subjected to analysis, which included biophysical assays and molecular target binding assays on the surface of cells. The selected molecules were then given an analysis of biological activity in an NK cell-dependent cytotoxicity (ADCC) assay. The results of the above tests are currently being analysed to select the lead molecule and its further development in preclinical studies.

To confirm that the PB003a molecule under development has broad therapeutic applications in patients with solid tumours, the expression of $\alpha V\beta 8$, as well as the NKG2D receptor, was assessed in tissues from patients with colorectal cancer (CRC), triple negative breast cancer (TNBC) and head and neck cancer (HNC). The high expression of the aforementioned molecular targets in tissues of various tumour types, as opposed to normal tissues, was confirmed, which is also supported by literature data. This justifies the planned phase 0 clinical trial with head and neck cancer patients. In December 2022, a contract was signed with Presage Bioscience, based in Seattle, USA, for a Phase 0 clinical trial that will involve injecting microdoses of test molecules into the tumours of head and neck cancer patients. With this approach, project PB003a will obtain confirmation of the mechanism of action in the complex tumour microenvironment, as well as gaining early data on anti-tumour activity.

The documentation necessary to obtain FDA approval for the Phase 0 clinical trial is currently being prepared.

[Project work planned for 2023](#)

The aim of the work carried out in project PB003a in 2023 is to produce a lead molecule in the first quarter, which will then be manufactured and subjected to preclinical testing for safety and anti-cancer efficacy, with a view to starting clinical development by entering Phase 0 in December.

Drug development project PB003g

[Aim of the project](#)

Project PB003g aims to develop an anti-cancer drug in the format of a bifunctional molecule that specifically recognises the GARP-TGF β 1 protein complex, with significantly greater therapeutic efficacy than traditional antibodies directed against GARP currently in early clinical development (e.g. molecules ABBV-151, Abbvie and DS-1055, Daichii-Sankyo). The accumulation of regulatory T cells (Treg) in the tumour microenvironment is associated with an unfavourable prognosis in various types of solid tumours. The GARP-TGF β 1 complex is highly expressed on various tumour cells (including lung, colorectal, breast, head and neck), as well as on regulatory T cells (Treg), and plays a key role in immunosuppression. While ABBV-151 aims to restore immune function by blocking the release of immunosuppressive TGF β 1 from the complex with GARP, DS-1055 recruits and activates NK cells to directly kill Treg and tumour cells. Project PB003g aims to develop a therapeutic molecule that

eliminates Treg and tumour cells with GARP-TGF β 1 expression much more effectively than competing molecules. To achieve this, drug candidate PB003g is being developed in the form of a so-called bifunctional therapeutic molecule (BFP), in which a traditional antibody will be combined with ULBP2, a natural immunoligand of the NKG2D receptor present on the majority of cytotoxic NK and T cells in the tumour environment. This unique therapeutic format developed by Pure Biologics will not only demonstrate a qualitative advantage over conventional antibodies, but will also lead to the recruitment of significantly more cytotoxic cells capable of killing cancer cells. The aim of the work in project PB003g is to identify a lead candidate to enter the Phase 0 clinical trial in December. The implementation of the Phase 0 study, as the first stage of clinical development of immuno-oncology projects, is in line with Pure Biologics' 'smart clinical development' strategy of capturing valuable pharmacodynamic data at an early clinical stage to 1) reduce the risk of failure of later, costly phases of clinical trials, and 2) significantly increase the value of the project in a more cost-effective manner compared to conventional Phase 1-3-based clinical development, with the benefit of future commercialisation of the project.

Financing

Project PB003a (as part of PB003) is co-financed by the National Centre for Research and Development (NCBR) under the Intelligent Development 2014-2020 programme. According to the co-financing agreement, the total cost of the project (PB003a and g) is PLN 39 905 000, and the value of the grant is PLN 30,969,000. The eligibility period for costs lasts until 31 December 2023. The Company's own contribution amounting to PLN 8,969,000 the Company intends to cover this from the capital raised through the conducted share issues.

In July 2022, the Company submitted a request to the NCRD for amendments to the project application, which included the inclusion of model molecule studies and the change of the Phase 1 clinical trial to Phase 0 as the endpoint of the NCRD-funded project. The phase 0 clinical trial will involve injecting microdoses of the drug directly into tumours and will positively and cost-effectively impact the commercialisation potential of the project.

In September 2022, a grant application for a project entitled 'Phase 1 clinical trial to investigate the safety, tolerability and efficacy of a bispecific compound in patients with advanced solid tumours' was submitted to the Medical Research Agency competition. The project was recommended for funding. The grant agreement, which amounts to PLN 32 439 000 (total project budget: PLN 48 897 000), was signed in March 2023.

Implementation and results of the project in the reported period

In 2022, project PB003g focused on two areas: (1) confirming the therapeutic mechanism of action of bifunctional molecules (BFPs) in vitro and in vivo using anti-GARP-TGF β 1 model molecules based on sequences available in the public domain, and (2) obtaining unique molecular target binding sequences to develop a lead drug candidate for preclinical and clinical development.

Two variants of model anti-GARP-TGF β 1 monoclonal antibodies and two variants of anti-GARP-TGF β 1 bifunctional molecules based on known molecular target binding sequences from the literature were produced and tested in in vitro assays to compare efficacy (Treg and tumour cell killing), safety, specificity as well as stability (serum half-life), compared to conventional therapeutic antibodies. It was confirmed that BFP could be produced in cell lines used for the production of biological drugs. Furthermore, BFP molecules were stable in both buffers and serum, indicating that the bifunctional molecule format is suitable for further development of large-scale production (CMC). The binding

strength of antibodies to molecular targets is a major determinant of their therapeutic efficacy. Therefore, an important step in qualifying the bifunctional molecule for further development was to confirm using biophysical and cellular assays that the BFP format does not reduce binding strength to GARP-TGF β 1, relative to traditional formats. Binding specificity, on the other hand, is one of the main factors determining both therapeutic efficacy and safety. The model molecule BFP efficiently and specifically bound to GARP-TGF β 1 on cancer and Treg cells, as well as to CD16 and NKG2D, receptors that trigger cytotoxicity of NK cells and T cells. Furthermore, by demonstrating the formation of a triple complex between antibodies and GARP-TGF β 1 and NKG2D, it was confirmed that bifunctional molecules are able to bind both molecular targets simultaneously, which is essential for the therapeutic action of the BFP molecule. The intended mechanism of action was confirmed in cellular assays investigating the ability of BFP to induce tumour and Treg cell killing by activated cytotoxic cells, and demonstrated a clear advantage of the BFP format over the DS-1055 antibody (Daichii-Sankyo) in terms of more effective induction of GARP-TGF β 1-expressing cell death.

Subsequently, in the TGF β 1 blocking assay, bifunctional model molecules were shown to inhibit TGF β 1 release from the complex with GARP in a manner comparable to the reference molecule ABBV-151. The results confirm that BFP not only stimulates immune cells to kill tumor cells and Treg cells, but also blocks the TGF β 1 signaling pathway, which is an important mechanism for limiting immunosuppression in the tumor setting.

The neonatal Fc receptor (FcRn), present on vascular endothelial cells, is a major determinant of the half-life of therapeutic antibodies in the patient's bloodstream. Binding of model BFP to FcRn has been investigated and confirmed in vitro. Studies in mice, with expression of human FcRn, are underway to investigate the half-life and stability of the therapeutic format of BFP. Data will be available in Q1 2023. In Q2 2023, studies using model BFP in humanised mice implanted with human tumour cells (Raji cells with GARP-TGF β 1 overexpression) will be conducted to obtain pharmacodynamic data, including confirmation of the mechanism of action and anti-tumour efficacy of the BFP format. The company expects the results of the aforementioned in vivo studies in Q2 2023.

In parallel with the study of model molecules, intensive work continued on the development of proprietary anti-GARP-TGF β 1 therapeutic molecules, using licensed phage libraries from Twist Bioscience. In the past year, the Company has produced more than 100 unique antibodies directed against GARP-TGF β 1 as a result of its selections. The resulting molecules were analysed, which included biophysical assays and cell surface molecular target binding assays. Selected molecules were then tested for their ability to induce immune cell cytotoxicity against cancer cells (ADCC). The most promising molecules, including PB003g.BFP.21.0090 and PB003g.BFP.21.0091, are currently undergoing final characterisation for functionality and stability, with final selection of candidates for clinical development planned for March 2023.

To confirm that the PB003g molecule under development has broad therapeutic applications in patients with solid tumours, the expression of GARP-TGF β 1, as well as the NKG2D receptor, was assessed in tissues from patients with colorectal cancer (CRC), triple negative breast cancer (TNBC) and head and neck cancer (HNC). The high expression of the aforementioned molecular targets in tissues of various tumour types, as opposed to normal tissues, was confirmed, which is also supported by literature data. This justifies the planned phase 0 clinical trial with head and neck cancer patients.

In December 2022, a contract was signed with Presage Bioscience, based in Seattle, USA, for a Phase 0 clinical trial that will involve injecting microdoses of test molecules into the tumours of head and neck cancer patients. With this approach, project PB003g will obtain confirmation of the mechanism of action in the complex tumour microenvironment, as well as gaining early data on anti-tumour activity.

The documentation necessary to obtain FDA approval for the Phase 0 clinical trial is currently being prepared.

Project work planned for 2023

The aim of the work carried out in project PB003g in 2023 is to produce a lead molecule in the first quarter, which will then be manufactured and subjected to preclinical testing for safety and anti-cancer efficacy, with a view to starting clinical development by entering Phase 0 in December. In parallel, in the second half of 2023, full chemistry, manufacturing, controls (CMC) and pre-clinical development for phase 1-3 clinical trials, planned after phase 0, will begin.

Drug development project PB004 (PureBIKE)

Aim of the project

The objective of the PB004 project is to develop an anti-cancer drug based on an anti-ROR1 antibody with significantly improved therapeutic properties compared to Zilovetamab, anti-ROR1 antibody currently in clinical development. PB004 will develop an anti-ROR1 molecule characterised by an appropriate format and binding to a selected epitope to induce cancer cell death through activation of natural killer (NK) cells and initiation of antibody-dependent cell cytotoxicity (ADCC). The drug under development has great potential for the treatment of patients with ROR1-expressing cancers, including triple negative breast cancer (TNBC), a particularly aggressive type of breast cancer. In addition, PB004 drug will be used in the treatment of various types of lymphomas and leukaemias, such as mantle cell lymphoma (MCL), or chronic lymphocyte leukaemia (CLL). Pure Biologics plans to bring the drug candidate to the first phase of clinical trials, and then commercialise the project by making it available under a license. The PB004 project is an important item in the Company's portfolio of highly innovative drug development projects in the immuno-oncology therapy segment.

Financing

The project is co-financed by the National Centre for Research and Development (NCBR) under the Intelligent Development 2014-2020 programme. According to the co-financing agreement, the total cost of the project is PLN 40,417,000 and the value of the grant is PLN 29,869,000. On 21 August 2022, NCBR accepted the Company's proposed amendments to the project application, which included changing the format from BiKE (bispecific killer engager) to a long-acting BiKE molecule, and changing the Phase 1 clinical trial to Phase 0 as the endpoint of the NCBR-funded project. The changes in scope are related to changes in the total project budget (from PLN 40 417 000 to PLN 38 617 000) and the amount of funding (from PLN 29 869 000 to PLN 28 789 000). The planned cost eligibility period lasts until December 31, 2023. The Issuer intends to cover its own contribution to the project in the amount of PLN 9 898 000 the Issuer covers by equity.

The Phase 0 clinical trial will involve injecting microdoses of the drug directly into tumours and will positively, cost-effectively, influence the commercialisation potential of the project.

In September 2022, a grant application for a project entitled 'Phase 1 clinical trial of the first-in-class bispecific molecule ROR1xCD16 in patients with B-cell lymphoid malignancies' was submitted to the Medical Research Agency competition. The project was recommended for funding. The grant agreement, which amounts to PLN 32 439 000 (total project budget: PLN 48 897 000), was signed in January 2023.

Implementation and results of the project in the reported period

In 2022 project PB004 focused on (1) selecting antibody-based molecule formats with superior cancer cell killing efficacy compared to the Zilovertamab antibody; (2) characterizing the selected formats in vitro and in vivo using model molecules; (3) generating custom antigen-binding molecules to obtain drug candidates, based on the results obtained for the model molecules.

The project identified two promising ADCC amplification formats: the long-acting Bispecific NK-cell Engager (BIKE) molecule and an afucosylated antibody. Both strategies are based on improving CD16 protein binding on NK cells, activating these cells and inducing ADCC to more effectively kill cancer cells through the anti-CD16 arm of the long-acting BIKE molecule, or by obtaining antibodies lacking the fucose in the Fc fragment.

In vitro tests confirmed the validity of the chosen strategy, demonstrating more effective tumour cell killing with long-acting model molecules of BIKE or afucosylated IgG1, compared to the reference molecule Zilovertamab, currently in phase I/II clinical trials for the treatment of mantle cell lymphoma (MCL), chronic lymphocytic leukaemia (CLL) and other cancers. In addition, in 2022, project PB004 obtained the first pharmacokinetic data from in vivo studies using model molecules and genetically engineered mice with the human neonatal Fc receptor (FcRn), which determines the half-life of IgG antibodies and albumin in blood. Using genetically modified mice, Pure Biologics has obtained half-life data for different formats with better translation to clinical settings. The project is currently conducting in vivo studies using model molecules in humanised mice with implanted tumours of human origin to obtain pharmacodynamic data, including confirmation of the mechanism of action and observation of anti-tumour efficacy of PB004. A preliminary set of animal study data on both efficacy and safety, using model compounds and lead PB004, candidates, has been entrusted to Jackson and GemPharmatech. Results are expected in the second quarter of 2023.

As part of the work to develop a proprietary lead molecule, further selections of unique anti-ROR1 and anti-CD16a sequences were carried out using phage presentation. The resulting molecules were then tested in functional assays reflecting the intended mechanism of action, including the ability to induce immune cell cytotoxicity against cancer cells. Since the results showed that the afucosylated IgG1 format represents a faster and less risky pathway in clinical development, project PB004 focused on obtaining proprietary anti-ROR1 antibodies in the afucosylated IgG1 format. A number of unique and patentable ROR1-binding antibodies have been obtained that meet the PB004 criteria in terms of binding (affinity and selectivity) and functional properties, including the two most promising molecules designated PB004.22.0344.aF and PB004.22.0372.aF.

Final screening using the ADCC assay is underway, and additional functional assays, which also include ADCP (Antibody-Dependent Cellular Phagocytosis) and CDC (Complement-Dependent Cytotoxicity), aim to narrow down the pool of selected molecules. The project aims to select a lead molecule in the first quarter of 2023.

In order to obtain data on PB004 activity under near-clinical conditions, cooperation was established with the Ludwik Hirszfeld Institute of Immunology and Experimental Therapy, PAS, Wrocław, Poland. The collaboration will allow selected antibodies to be tested on material from patients with chronic lymphatic leukaemia (CLL). In a first step, expression of the target receptor on the CLL cell surface was confirmed. To test the potential of the drug candidates to block tumour cell proliferation (Zilovertamab's mechanism of action), proliferation assay conditions were established using model molecules. Additional analysis using patient material will include the killing of tumour cells by immune cells (induction of ADCC and activation of NK cells).

In 2022, as part of project PB004 the Company took an important step towards clinical trials by entering into an agreement with Presage Biosciences, based in Seattle, USA. Presage provides Phase 0 clinical trial services, which involve injecting microdoses of test molecules into tumours in head and neck cancer patients. With this approach, project PB004 will obtain confirmation of the mechanism of action in the complex tumour microenvironment, as well as obtain early data on anti-tumour activity. Immunohistochemical analysis confirmed the expression of the ROR1 receptor in head and neck tumours in material from patients, as well as the presence of effector cells in the tumour environment.

Project work planned for 2023

The aim of project PB004 in 2023 is to produce a lead molecule in the first quarter, which will then be manufactured and subjected to preclinical testing for safety and anti-cancer efficacy, with a view to commencing clinical development with entry into Phase 0 in December.

Aptamer-based therapeutic projects

Fig. 8: Aptamer-based projects.

project name	therapeutic area	indication	product/active molecule
PB002 AptaPheresis	neurology/rare diseases	Neuromyelitis Optica (NMO)	biomolecular filter with aptamer
PB005 AptaMG	neurology/rare diseases	Myasthenia Gravis	biomolecular filter with aptamer
PB006 AptaMLN	oncology	melanoma	aptamer-drug conjugate
PB103	neprology	chronic kidney disease	selective aptamer adsorber

Therapeutic project PB002 (AptaPheresis)

Aim of the project

The PB002 (AptaPheresis) project aims to develop a highly innovative targeted apheresis therapy for the treatment of patients suffering from Neuromyelitis Optica (NMO). NMO is a potential fatal neurological disease caused by auto-immune antibodies that target the spinal cord and optic nerves, leading to severe paralyses of limbs and blindness. It is characterised by varying severity of symptoms; periods of remission alter with exacerbations, which often lead to hospitalisation and a significant increase in treatment costs. Therapeutic options for NMO patients during exacerbation periods are non-

selective and are associated with serious side effects. Therefore, there is still an unmet medical need for more efficient NMO treatments, with an improved safety profile and cost-efficient. Under project PB002, Pure Biologics is developing a medical procedure in which auto-antibodies against aquaporin-4, a pathogenic factor in NMO, are selectively removed from patients' bloodstreams. PB002 is a medical device that will capture auto-antibodies using highly specific aptamers developed using proprietary PureApta technology. PB002 has the potential to significantly improve care of the estimated 300,000 NMO patients world-wide, while reducing treatment costs.

Financing

The project is co-financed by the National Centre for Research and Development (NCBR) under the Intelligent Development 2014-2020 programme. According to the co-financing agreement, the total cost of the project is PLN 14,282 thousand and the value of the grant is PLN 10,542 thousand. The Company intends to cover its own contribution of PLN 3,740 thousand from the conducted share issue.

Implementation and results of the project in the reported period

In 2022, the PB002 project continued work on the development of a prototype medical device for capturing aquaporin-4 (AQP4) antibodies from blood. In particular, it focused on two critical aspects: 1) the nucleolytic stability of its lead aptamer in human and animal serum, and 2) the development of the adsorber's prototype for a model aquaporin-4 autoantibody (rAb-X) for use in ex vivo studies with human and animal plasma, and 3) production of a series of prototype adsorbers for testing on an animal model.

The expected stability of the aptamer for use in the prototype device is 80% after incubation in serum for up to 3 hours. The lead molecule was found to meet this criterion in human serum and was therefore selected for further development. However, stability in animal serum was much lower (19% after 3 hours of incubation), therefore, steps were taken to increase the nucleolytic stability of the aptamer while maintaining high affinity for the molecular target, the model anti-AQP4 autoantibody (rAb-X). As part of the optimization of the molecule in its sequence, selected natural nucleotides were replaced with their modified counterparts. A total of 32 aptamer variants were tested, from which the two with the best stability and molecular target binding were selected. The optimised molecules achieved a stability of approximately 96% in human serum and 88% in rat serum after 2 hours of incubation, which is sufficient for use in the apheresis process. However, sufficient stability could not be achieved in rabbit serum. Based on the results obtained, it was decided to use a rat model for the in vivo study.

In the next step, the production of the selected aptamers was commissioned, and their quality control (QC) and ex vivo functional tests were performed. Based on the results obtained, a lead molecule was selected with a molecular target binding efficiency of 90% from buffer and more than 80% from rat serum (>95% from human serum) in a dynamic system, i.e. under buffer/serum flow conditions through the column. The selected aptamer was used to build a prototype adsorber for an in vivo study.

In preparation for the in vivo study, a first batch of a prototype adsorber was produced, which was then subjected to sterilisation and endotoxin tests, the level of microbial contamination was determined, and the stability of the bed was tested. The experiments confirmed that the adsorbers were sterile and the sterilisation process was safe for the aptamer bed; microbial contamination levels, including endotoxin levels, were below the detection threshold.

Accordingly, 26 prototype adsorbers were manufactured in the Company's laboratories and quality tested. Ex vivo testing using rat serum, which contained the molecular target, confirmed that the prototype adsorbers showed high efficiency, i.e. capturing more than 90% of the target protein in a

flow-through system. Thus, the functionality of the prototypes was verified and, in the next step, they were to be tested in in vivo studies on a rat model.

In parallel, as part of the preparations for the in vivo study, consultations were held with research units, resulting in a collaboration with one of the CRO facilities in Poland with the necessary technical facilities and experience to carry out the planned in vivo study on a rat model. A study plan was developed, and approval was obtained from the Ethical Committee for Animal Experiments. Experimental preparations were underway in late 2022 and early 2023, followed by ex vivo testing on animal blood to optimise plasmapheresis conditions, with the aim of using the system for selective plasmapheresis using prototype adsorbers on an in vivo model. However, ex vivo pilot tests carried out using rat blood showed that the simultaneous use of a plasmapheresis filter (necessary to separate blood cells from plasma) and a selective adsorber was not possible due to the excessive volume of the system relative to the volume of rat blood.

The market environment for NMO therapies has also changed significantly in recent years. New immunosuppressive therapies have been approved, including Soliris (eculizumab, an anti-C5 monoclonal antibody), Uplizna (inebilizumab, an anti-CD-19 antibody), Enspryng (satralizumab, an anti-IL-6 receptor antibody). These drugs have already been included in reimbursement programmes in many countries around the world and are now in direct competition with the solution under development, which was not the case when the project started.

Nevertheless, project PB002 has laid the foundations of a technology for the development of highly selective aptamer adsorbers that can serve subsequent projects and is currently being used in project PB103, which addresses the needs of a much larger group of patients with chronic kidney disease, an urgent and unmet medical need. Thus, the Company expects that the know-how gained will enable it to enter very attractive markets and new therapeutic areas.

During the last reported period, the Company also completed the implementation of a Quality Management System based on the requirements of ISO 13485:2016 PN-EN ISO13 485 - Medical devices Quality management systems - Requirements for regulatory purposes and Good Laboratory Practice (GLP), including activities related to Quality Assurance and Quality Control. The key objective of the implemented system is to meet the normative requirements and applicable legislation by achieving the quality objectives within the project implementation.

[Project work planned for 2023](#)

In 2023, the Company will summarise all results, intellectual property and know-how developed under PB002 and analyse the substantive and business case for continuing the project in its original form. The technology developed will be used to develop therapeutic solutions for new indications, including within project PB103.

Therapeutic project PB005 (AptaMG)

[Aim of the project](#)

The PB005 (AptaMG) project aims to develop a highly innovative, targeted apheresis-based therapy for the treatment of patients suffering from Myasthenia Gravis (MG). Myasthenia Gravis is an autoimmune disease caused by disturbances in neurotransmission in the neuromuscular junction. During the course of disease, patients experience exacerbations that severely weaken limb muscles, thus affecting their daily lives, as well as life-threatening myasthenic crises that cause respiratory failure. Exacerbation is

regarded as a possible prodromal stage of a crisis and requires hospital treatment. One of the main factors responsible for disease symptoms is the complement system, and it is clinically proven that inhibition of complement 5 (C5) protein is beneficial for patients in exacerbation. Under PB005 Pure Biologics is developing a medical device that will capture C5 protein from the patients' blood, improving apheresis procedures currently used for patients with severe symptoms. The device will use highly specific aptamers for capturing C5 from blood, developed using Pure Biologics' proprietary PureApta technology. PB005 has the potential to significantly improve care of the estimated 800,000 NMO patients world-wide, while reducing treatment costs.

Financing

The project is co-financed by the National Centre for Research and Development (NCBR) under the Intelligent Development 2014-2020 programme. According to the co-financing agreement, the total cost of the project is PLN 14,730,000 and the value of the grant is PLN 10,775,000. The Company intends to cover its own contribution of PLN 3,958,000 from the conducted share issue. The project covers 6 stages, including the production of a filter prototype, its optimisation and testing its safety in preclinical studies and in a clinical trial of a medical device. The cost eligibility period lasts until December 31, 2023.

Implementation and results of the project in the reported period

In 2022, work was underway to develop a prototype medical device for the selective capture of C5 protein from plasma and to test it ex vivo using human and animal plasma, ultimately in an in vivo animal study. The optimised prototype should reduce plasma C5 protein concentrations by at least 80%.

A selection of aptamers resulted in the selection of molecules that bind native C5 protein from human plasma, show affinity for the molecular target at the nanomolar level (6.2-43.3 nM). Aptamers are characterised by favourable C5 binding kinetics, i.e. rapid association and minimal dissociation. Subsequently, the selected aptamers were optimised to shorten the molecules and also to improve stability in human and animal plasma. Binding tests of native C5 protein from human serum by the cold-mobilised aptamers on the deposit showed that the resulting aptamers under static conditions bind between 82 and 98% of the molecular target, depending on the experimental setup used.

In preparation for a proof-of-concept experiment on an animal model to demonstrate that deletion of complement protein C5 reduces clinical symptoms of myasthenia gravis, C5 protein binding assays were performed with rat, rabbit, pig, guinea pig and monkey serum. Experiments have shown that the selected molecules have low or no affinity for selected animal C5 proteins, and it is therefore necessary to generate model aptamers towards C5 that could be used for in vivo studies.

To the myasthenia gravis drug Soliris (eculizumab), already used in myasthenia gravis, the drug Ultomiris (ravulizumab), which inhibits activation of the C5 protein, was approved by the FDA and EMA in 2022. Due to a marked change in the business environment in a niche market such as myasthenia gravis therapy, Pure Biologics has identified an alternative and highly promising direction for growth based on the results from project PB005. The technology developed under PB005 and the C5 protein-binding aptamers will be further developed as the basis of the PB103, which aims to increase the efficiency of the dialysis procedure for patients with chronic kidney disease. This is a much larger market than for myasthenia gravis, which is a rare disease with a medical need that can be met by the solution developed in the implementation of the project PB005.

In addition Pure Biologics explores the potential of selected anti-C5 aptamers towards developing a drug for the treatment of acute and/or chronic inflammatory conditions. Therefore, a series of experiments

were performed to investigate the detailed characteristics of the interaction between aptamers and the C5 protein. The results showed that the leading sequences inhibit the activation of the C5 protein. The mechanism of action of the discovered aptamers can therefore be compared to that of the drug Soliris, highlighting the potential for their further development.

In conclusion, the selected aptamers show great potential for further development in new directions, as we infer from the favourable binding parameters of the native molecular target from human plasma (high affinity with nanomole dissociation constant; high specificity) and the ability to block the activation of C5.

In April 2022, at the Aptamers 2022 conference, the Company presented a scientific poster presenting selected results confirming that the obtained aptamers have high affinity and specificity towards the molecular target of the C5 protein. The results suggest great potential for the selected molecules to develop novel therapies.

[Project work planned for 2023](#)

In 2023, the Company will summarise all the results, intellectual property and know-how developed under PB005 and analyse the substantive and business case for continuing the project in its original form. The technology created will be used to develop therapeutic solutions for new indications, including in project PB103, in which proof-of-concept in vivo experiments will be conducted towards improving the standard dialysis procedure within the company Doto Medical set up for this purpose. The results obtained under project PB005 will form the basis of a patent application. Ultimately, the Company plans to incorporate the assets and scientific and technological know-how developed under PB005 into project PB103.

Proof-of-concept project for PB006 (AptaMLN)

[Aim of the project](#)

The aim of the PB006 project is to develop a targeted chemotherapy, in the form of a drug-conjugated aptamer targeting IL-13R α 2, for safe and efficient treatment of melanoma. Traditional chemotherapeutics effectively kill cancer cells, but the doses needed to eradicate the tumour cause unacceptable side effects in patients. Immunotherapies in the form of monoclonal antibodies work well in subsets of patients. Unfortunately, in most patients suppression of tumour-killing immune cells in the tumour micro-environment hampers therapeutic efficacy of such therapies. PB006 will specifically recognize the molecular target of IL-13R α 2 displayed on the surface of tumour cells. After the receptor binds the conjugate, the entire complex will be taken-up by the cell, after which the drug will be released and kill the tumour cell. Thus, PB006 will allow targeted delivery of highly toxic molecules specifically to cancer cells, thereby by-passing immuno-suppression and reducing side-effects in comparison with conventional chemotherapies.

[Financing](#)

The PB006 project is a collaboration between Pure Biologics and the Polish Centre for Technology Development (PORT, Wroclaw, Poland). The total cost of the project is PLN 2,354,000, and the amount of EU funding granted is PLN 2,072,000. The budget of the project stages implemented by the Company amounts to PLN 1,412,000 (total cost), and the amount of funding granted is PLN 1,129,000. In February last year, the funding granted by the National Research and Development Fund for the phases

implemented by the Company came to an end and PORT decided not to continue with the project. In September, the Company obtained information on the acceptance of the final report by NCBR and settlement of the project.

Implementation and results of the project in the reported period

In 2022, project PB006 completed the aptamer selection phase against the IL-13R α 2 receptor, but failed to discover a sequence specific to its molecular target. The putative reason may be the negative charge of the protein, which negatively affects the potential interaction with the DNA aptamer, also characterised by a negative charge. The action taken to minimise the risk of selection failure in such a case was to use modified nucleosides (analogues of natural nucleotides) to select aptamers whose presence affects DNA properties. Due to the failure of aptamer selection, the project was terminated.

In parallel, 2022 experiments were conducted to determine the cytotoxicity and genotoxicity of selected chemically modified nucleosides used in PureApta™ technology. This is necessary to determine the safety profile of aptamers containing modified nucleotides. A total of five modifications were tested. The study showed that none of the tested modifications are cytotoxic or genotoxic, which was confirmed by two methods (comet/comet assay, histone phosphorylation assay). This means that the tested modifications can be safely used in the therapies under development.

The results, conclusions and know-how developed in the project will be the basis for potential subsequent projects to develop targeted oncology therapies in the form of aptamer-drug conjugates.

On 22/02/2022, PORT informed Pure Biologics that it would not proceed with its stages of the project due to the project's Stage 2 rescheduling. This being the case, the Company sees an opportunity to further develop PB006 on its own, building on the work completed to date. Pure Biologics has accounted for all costs and received a grant for its work and there is no risk that funds will need to be returned due to PORT's decision.

Therapeutic project PB103 (Doto)

Aim of the project

The aim of project PB103 is to develop an innovative medical device based on Pure Biologics' PureApta technology, which will significantly improve the efficiency of toxin removal during haemodialysis performed in patients suffering from chronic kidney disease (CKD). The project is divided into sub-projects PB103a and PB103b, each of which will develop an adsorber targeting different molecular targets. The effect of toxin capture by the PB103a adsorber will be to preserve residual renal function, while the use of the adsorber being developed in PB103b project will reduce the risk of developing cardiovascular disease and mortality in patients with CKD.

In patients with CKD when the kidneys stop functioning, the body's water balance is disrupted. Problems with urine production result in a sharp decline in quality of life. Therefore, there is an unmet medical need to develop therapies to extend kidney function time in patients with CKD. Chronic inflammation underlies the deterioration of renal function. Therapeutic strategies that inhibit chronic inflammation, for example by blocking the activity of pro-inflammatory cytokines, can prolong renal function. The main disadvantage of existing therapies is that a single injection of the drug weakens patients' immunity for many weeks, making this group of patients particularly susceptible to infections such as COVID and influenza. Another major barrier is the cost of antibody therapy reaching several thousand dollars per month. To address this medical need, Pure Biologics will develop a medical device, complementary to

the current haemodialysis procedure, that will safely remove pro-inflammatory cytokines from the blood of CKD patients. The effect of the device being developed under sub-project PB103a will be to preserve residual kidney function in CKD patients to maintain water homeostasis, without compromising immunity.

Patients with chronic kidney disease on dialysis have a 9 to 12 times greater risk of death compared to the general population. Cardiovascular disease (CVD), including heart failure, accounts for approximately 50% of deaths in patients on dialysis. The link between the presence of toxins in patients' blood and vascular deterioration is direct but poorly addressed by current dialysis therapy. Therefore, there is an unmet medical need to develop therapies that would offset vascular deterioration in haemodialysis patients. Certain proteins are present in much higher amounts in the blood of CKD patients with CVD and appear to play a direct role in their clinical deterioration. In addition, they are not removed during current dialysis therapy and may therefore contribute to the disease and worsening of the patient's condition. The aim of the project is to develop a medical device as an add-on module to the apparatus used in haemodialysis, which will safely remove the above proteins from the blood of CKD patients. The effect of the medical device developed in sub-project PB103b will be a significant reduction in CVD mortality in patients with CKD, as well as a reduction in the societal costs associated with CVD treatment.

Project PB103, divided into sub-projects PB103a and PB103b, is a joint development programme between Pure Biologics and Relitech B.V. (Nijkerk, the Netherlands). Pure Biologics has developed unique technical expertise in extracorporeal blood purification using aptamers in projects PB002 and PB005. Building on its experience to date, the Company will develop 'molecular magnets' in the form of aptamers that can actively remove selected uremic toxins from the blood of CKD patients, based on its patented PureApta technology. Relitech will use its expertise and intellectual property rights to develop a medical device for extracorporeal blood purification. The end product, a medical device that can significantly improve current dialysis therapy, will enter an ever-growing market with a global value of more than \$105 billion in 2021.

Worldwide, more than 2 million CKD patients undergo dialysis, typically 3-4 times a week for an average of 5-10 years. In the US, treatment typically costs between \$3.3k and \$10.4k per month, with treatment of comorbidities raising the average price of care to as much as \$14.4k per month. In order to maximise project PB103's chance of success in a market far more attractive than the niche markets targeted by the products being developed under PB002 and PB005, Pure Biologics decided to focus its efforts entirely on the development of extracorporeal treatment under project PB103.

Financing

Project PB103 is being carried out in collaboration with the Dutch company Relitech B.V. (Nijkerk, the Netherlands). On 3 June 2022, a collaboration agreement was signed covering the first phase of the project, in which Pure Biologics will select aptamers against the first two molecular targets and Relitech will build a prototype device. Both companies will incur their own costs at this stage of the project. The approximate cost incurred by Pure Biologics up to the end of 2022, which has been covered by equity, is PLN 450 000.

During the course of implementation, the project was expanded and divided into two sub-projects, PB103a and PB103b, addressing different complications in CKD patients. In the next stages, the Companies plan to develop a device based on selected aptamers and their preclinical and clinical development.

Pure Biologics has formed a special purpose vehicle (SPV) Doto Medical Ltd. and is actively seeking financing in the form of non-dilutive capital and venture capital for project PB103. The project application for the EIC Pathfinder competition submitted on 4 May 2022 was unsuccessful. A grant application is currently being prepared for the competition organised by PARP under the SMART (FENG) path.

Implementation and results of the project in the reported period

As part of the project, Pure Biologics began work at the beginning of June 2022 on the selection of aptamers targeting the first two molecular targets to be removed from the blood of haemodialysed patients by the adsorber being developed in subproject PB103a. First, an in silico structural analysis of the molecular targets was carried out, which was used in the next step to develop a selection strategy. A thorough qualitative analysis of the molecular targets was also carried out, including an assessment of purity and biological activity, to ensure that aptamer selection was carried out correctly. This is crucial in order to obtain aptamers capable of selectively capturing selected uremic toxins. At the same time, work has been undertaken to develop methods for the detection and quantification of molecular targets in human serum and selected animal sera, which will be essential for in vitro and ex vivo testing. ELISA assays for the quantification of molecular targets in human serum have been developed. As a next step, their optimisation will be carried out and tests will be developed to allow quantification in animal serum. In addition, two selection campaigns were conducted during this reporting period. 15 sequences potentially binding the first, and 16 sequences potentially binding the second molecular target were identified. Biochemical and biophysical tests were then carried out on the basis of which four sequences binding the first molecular target were selected. Work on their truncation and optimisation was initiated, with the aim of improving the stability of the molecules in human and animal serum, and improving the properties affecting the large-scale production. For the 16 sequences identified in the selection against the second molecular target, no sufficiently specific binding was observed, so a thorough analysis was carried out, which showed that the properties of the protein selected as a molecular target could negatively affect the aptamer selection process. As a countermeasure, a new selection strategy has been developed and the next campaign is scheduled for early 2023.

As part of its work on project PB103 in 2022, Relitech initiated development of the device and conducted initial tests using a test configuration of the prototype. The aim of the tests was to analyse potential technical limitations early on, and to develop and test various solutions to identified problems. The device has been designed so that it can be used in a wide range of ex vivo and in vivo experiments. A first software version of the device has also been developed and testing is planned for this year.

Project work planned for 2023

In the next reporting period, it is planned to continue work on the development of methods for the detection and quantification of molecular targets in human and animal sera. Re-selection against the second molecular target of the PB103a project will also be carried out, as well as selections against further toxins to be captured by the adsorber being developed in the PB103b project.

7. Information on events materially affecting the Company's operations during the financial year and thereafter

Due to the nature and profile of Pure Biologics Inc.'s activities, events that significantly affect the Company's operations are related to its R&D activities and are described in detail in section 7. In addition to the events mentioned in the aforementioned section, the activities in the business development and corporate area of the Company, which are described below, may be relevant for a proper assessment of the Issuer's activities in the period covered by this report.

Actions taken to secure new grants and subsidies

Pure Biologics is actively involved in obtaining grants for the continuation of current and new projects. In 2022, 8 grant applications have been submitted, of which 2 have been awarded funding totalling nearly PLN 65 million. 2 applications are still under evaluation.

- a) In May, in the EIC Pathfinder Open 2022 competition organised under the Horizon programme by the European Innovation Council, an agency of the European Commission, an application was submitted for the funding of project PB103 entitled "Novel process and device based on aptamers for removal of molecules leading chronic kidney disease (CKD) to end-stage kidney disease (ESKD)". The proposal was submitted by a consortium comprising Pure Biologics as coordinator, as well as Relitech B.V. (Netherlands) and Aldo Moro University of Bari (Italy) as partners. The project was not recommended for funding.
- b) In two National Cancer Institute Clinical and Translational Exploratory/Developmental Studies (R21) competitions, organised by the US government agency NIH (National Institutes of Health), Pure Biologics submitted a total of 4 applications for funding:
 - for project PB006 - „Development of an IL-13R α 2 specific aptamer for use as a carrier in targeted melanoma therapy'. The project was not recommended for funding;
 - for project to carry out a proof-of-concept phase for a molecule interacting with an as yet undisclosed molecular target. The project was not recommended for funding;
 - for project to conduct a proof-of-concept phase for a bispecific BiTE-type molecule interacting with a hitherto undisclosed cancer antigen. The project budget was US\$ 288,000. The project was not recommended for funding;
 - for project to conduct a proof-of-concept phase for a TriKE-type molecule interacting with previously undisclosed molecular targets. The project budget was US\$ 277,000. The project was not recommended for funding.
- c) In the competition organised by the Medical Research Agency under the title "Competition for the development of targeted or personalised medicine based on cell therapies or protein products", 3 applications were submitted for carrying out phase 1 clinical trials:
 - In project PB003g - "Phase 1 clinical trial to investigate the safety, tolerability and efficacy of a bispecific compound in patients with advanced solid tumours". The project has been recommended for funding, which is expected to amount to PLN 32.4 million. The funding agreement was signed in March 2023
 - In project PB004 - "Phase 1 clinical trial of the first-in-class bispecific molecule ROR1xCD16 in patients with B-cell lymphoid malignancies". The project has received funding of PLN 32.4m; the contract was signed in January 2023.

- for the project entitled 'Phase 1 study of the multifunctional QUAD-DM1 in glioblastoma patients', which was recommended for funding.

Grant applications are currently being prepared for the competition organised by the Polish Agency for Enterprise Development as part of the European Funds for a Modern Economy programme (SMART path). It is planned to submit 4 applications in the April edition, of which one will concern project PB103, two will concern new antibody-based drug development projects, and one will concern a technological project for the development of a platform for obtaining unique therapeutic antibodies.

Contract research

During the reported period, the Company carried out a number of contracted research activities in the field of R&D support for a French client, Neurophoenix SAS (NPX). Neurophoenix is a biotechnology company that is developing polypeptide drug candidates - PTEN inhibitors that unlock neuronal repair in optic neuropathies and several other neuronal diseases. The collaboration between Pure Biologics and Neurophoenix has been ongoing for several years and during this time the work carried out by the Company has enabled the development of efficient expression of NPX polypeptides in microbial systems and supported the identification of therapeutic candidates and screening of formulations to support the development of Neurophoenix formulations towards clinical trials. The collaboration with Neurophoenix was completed in the first quarter of 2023. During the reported period, work was also completed for a UK/Croatian client. In Addition Pure Biologics continuously supports on a commercial basis the work of the French company Novaptech SAS by providing modified nucleotides for Novaptech's internal research work under a licence granted for the use of the PureApta™ platform (see below).

Licences and profit-sharing agreements

In February 2022, the Company signed an agreement guaranteeing profit sharing from the commercialisation of an aptamer being developed under a contract research order. The subject of the contract was the development of an aptamer using the PureApta™ platform. The successfully completed assignment was subject to a one-off payment ("upfront payment") of PLN 214,000. In addition, a profit-sharing agreement was signed with the customer, whereby the Company is entitled to a six per cent share of the customer's future net profits from the commercialisation of the therapeutic solution using the aptamer under development ("success fee"). Commercialisation can occur through the sale or licensing of the solution at any stage of development. During the reported period, the Company successfully completed contract research, providing the customer with an aptamer sequence that recognises a designated protein target. In order to carry out the order, the Company used PureApta™, technology platform, developed as a result of a project funded by the European Funds.

Commissioning of new laboratory and office complex

In the second half of 2022, in parallel with the coordination of the finishing works, preparations for the company's relocation to the new premises began.

The commissioning of the laboratory and office complex was prepared on a project basis, i.e. within the agreed budget and in accordance with a timetable that took into account the shutdown times of the various departments and installations, the coordination of the installers' activities, the logistical capacity and an assessment of the risk of events preventing the completion of the work within the accepted

timeframe. In preparation for the move to the new area, copies of all equipment critical to the operation of the laboratory in the new space were commissioned, securing the ability to carry out basic research work during the commissioning of the complex.

In the first stage of implementation, the company's office and warehouse areas were relocated. According to the schedule, this stage did not exceed two working days for the individual departments. In the next stage, work was gradually phased out in the individual labs. At the same time as relocating and starting up more laboratories, work was shut down in the next laboratory thus minimising downtime and evenly dividing the team's work between packaging, transport and installation in the new space.

Before the actual work began, staff were trained in the operation of the building systems and the new working standards. In particular, the operation of carbon dioxide distribution points, UV lamps, ventilation and extraction arms, the principles of working with hazardous substances, the use of safety equipment such as eyewashes, safety showers, emergency power switches, gas detectors and the emergency ventilation system were discussed. The rules for moving between areas with different cleanliness classes and the need for additional access rights to rooms such as the quality analysis laboratory, sample archive and server rooms have also changed.

The relocation was carried out in a shorter time and budget than expected. The process totalled three weeks in December and resulted in the shutdown of individual labs for between one and six working days. At present, the complex is operating at optimum capacity, with commissioning work only involving troubleshooting, minor ventilation adjustments and configuration of the BMS system.

Activities in the area of building key scientific competencies in the Company related to entering the next development phases of R&D projects

In the first half of 2022, the Company has initiated activities to recruit a highly qualified manager with a medical background from the European market for the position of Chief Medical Officer, with experience in clinical drug development projects with significant international pharmaceutical companies. Dr John Weinberg has joined the team as part of the activities carried out in cooperation with a professional recruitment agency specialising in the area of lifescience.

Dr Weinberg is a pharmaceutical executive and physician whose 25-year career has included major pharmaceutical companies such as Novartis and Wyeth, and biotech organisations such as Veloxis, 4D Pharma, Enzon and MaaT, holding positions in both the US and Europe. John Weinberg was responsible for the successful development and launch of many drugs in the fields of oncology, immunology and transplantology. Among other things: he led the immunosuppressant drug Envarsus through development, approval for use and launch in the US and EU, resulting in a \$1.3 billion sale to Veloxis (the drug's owner); at Wyeth, he led the development programme of the drug Enbrel for new indications, resulting in annual sales at its peak of over \$10 billion.

The hiring of a Medical Director is an important element in the implementation of Pure Biologics' strategy in the area of building the core competencies necessary for the later stages of project development (clinical trials, partner acquisition and commercialisation).

In addition, Dr Niina Veitonmäki joined the team in 2022 as Immuno-oncology Portfolio Manager. Dr Veitonmäki obtained her PhD in cancer biology at the Karolinska Institute in Sweden. After post-doctoral studies, she worked at several biotechnology companies such as Bioinvent International, Alligator Bioscience (Sweden) and Molecular Partners (Switzerland), focusing mainly on immuno-oncology and preclinical drug development. During her career, Dr Veitonmäki has led several departments and participated in the development of several immuno-oncology drug candidates, such as BI-505,

Mitazalimumab, ATOR-1015, ATOR-1017, ALG.APV-527, MP0310, MP0317 and MP420. Dr Veitonmäki is co-inventor and co-author of several patents and publications.

In 2022, scientists with very high competencies in the areas of immunology, cancer biology, cell biology also joined Pure Biologics' research team, allowing for a significant increase in execution capabilities in this area.

Conclusion of an agreement with a broker of biotechnological assets

On 2 February 2022, Pure Biologics S.A. entered into an agreement with Destum Partners Inc., a renowned company based in Charlotte, NC (USA), providing partner search and asset brokerage services in the market of new drugs and therapies. The scope of the agreement includes consulting and advisory services, inter alia, in the area of introducing the Company's products and/or projects to distributors and/or pharmaceutical companies, acquiring new projects at various stages of development, assistance in evaluating and negotiating transaction terms. Established in 2006, Destum Partners has extensive experience in business development for biotech and pharmaceutical entities, and the firm's portfolio includes completed deals totalling more than USD 3 billion and partnerships with leading players among major pharmaceutical companies.

Events, conferences, partnering

In the reported period the Company took active part in the following events:

- 7-11 February, 2022 – Biotechgate Digital Partnering;
- 28-30 March, 2022 – BIO Europe Spring;
- 25-26 May, 2022 – CEBioForum 2022, organised by the Union of Biotechnology Companies BioForum;
- 13-16 June, 2022 – BIO International Convention, San Diego;
- 11 October, 2022 – EU-Japan Biotech & Pharma Partnering Conference 2022, Osaka, Japan;
- 12-14 October, 2022 – BIO Japan 2022, Yokohama, Japan;
- 24-26 October, 2022 – BIO Europe, Leipzig, Germany

At meetings arranged during these events, the Company presented its portfolio of projects, in particular aptamer and antibody drug candidates and therapeutic devices. A particularly significant event was the BIO International Convention in San Diego, which is the world's most popular and largest partnering conference for the area of new drug development, attended by all major pharmaceutical and biotechnology companies. During the event, which lasted several days, representatives of Pure Biologics held almost 50 personal 1:1 meetings with representatives of the pharmaceutical industry as well as the investment industry. Similar series of meetings were held at BIO Japan in Yokohama and BIO Europe in Leipzig, where it was possible to meet again with some of the potential partners contacted at the San Diego conference and present the latest developments in projects.

In addition, during the first half of this year, the Company presented scientific results related to ongoing projects: 4-5 April 2022, Aptamer Group scientists participated in the Aptamers 2022 conference, where they presented scientific posters on solutions in the projects PB005 and PB002. This conference brings together leading research groups and companies working in the aptamer field. Selected scientific materials are available on the Company's website.

Non-commercial activities within associations and unions

In February 2022, the Company joined the Warsaw Health Innovation Hub (WHIH) initiative as a partner. This is a joint project between the Agency for Medical Research (ABM) and entities from the medical, pharmaceutical and biotechnology sectors, coordinated by the ABM's Innovation and Biotechnology Development Division, which primarily aims to support initiatives in the strategic areas of pharmaceutical innovation, medical technology and medical devices, and health IT solutions.

The company is a member of the BioInMed association - the Polish Association of Innovative Medical Biotechnology Companies. The aim of BioInMed is to protect the rights and represent the interests of member companies in Poland and abroad and to increase the innovativeness of the Polish economy by promoting investment in medical biotechnology, popularising system solutions supporting the development of the industry. The union maintains a dialogue with policy makers and other stakeholders that focuses on key industry-wide issues, undertakes operational projects that support the activities of affiliated members, conducts educational activities on the specifics of the innovative medical biotechnology industry, targeting key system stakeholders as well as private investors.

Contract conclusion first preclinical pilot study in the project PB004

In March 2022, the Company signed a contract to provide research services covering the first preclinical pilot study in the project PB004. Subcontractor, The Jackson Laboratory, based in Bar Harbor, a leading U.S. animal testing services company, was selected in a public bidding process that ended on March 1, 2022.

The main aim of the study was to generate data that can help predict the half-life of molecule PB004 in cancer patients. The half-life of antibodies in the human bloodstream, including therapeutic antibodies and human plasma albumin, is determined by the neonatal Fc receptor (FcRn) present on cells lining blood vessels. For this reason, the pharmacokinetics of PB004 will be studied in genetically modified mice with human FcRn and lacking the mouse equivalent of albumin.

The concluded Agreement is important due to the fact that project PB004 has progressed through the drug development process to the pre-clinical research stage based on a known partner, which builds confidence in the Company and provides prospects for further implementation of this project, bringing the Company closer to the stage of potential commercialisation.

Signing of an annex to the funding agreement for project PB004 (PureBIKE) – NCRD approval for so-called Phase 0 studies

On 19 September 2022. The company learned that the National Centre for Research and Development signed an annex to the funding agreement for project no. POIR.01.01.01-00-0209/19 (PB004 PureBike), which formally updates the scope of the study and the project schedule.

The update of the experimental pathway results in modifications made by the Company to the substantive assumptions of the project, which were developed in accordance with the recommendations of the expert of the National Centre for Research and Development (NCBR) positively evaluating the 2021 research progress report.

Changes to the project include a reduction in subcontracting work, resulting in a reduction in project implementation costs by a total of PLN 1 800 000 (including the Company's own contribution of PLN 720 000) and a reduction in the implementation time of selected tasks. The total cost of the project

after changes amounts to PLN 38 617 125 (was PLN 40 417 125) and the amount of funding is PLN 28 789 080 (was PLN 29 869 080).

The revision of the remaining work to be carried out in the project was based on the results obtained during the Company's own research, as well as on changes in the project's business environment and ongoing competitive analysis. The annexed changes do not affect the main objectives of the project.

Among the changes to the project, the most significant is the decision to conduct a phase 0 clinical trial in which patients will be injected directly into the tumour with microdoses of the drug candidate, which will allow confirmation of the mechanism of action of PB004 molecule in the complex tumour microenvironment and predict the potential efficacy of the drug candidate in anticancer therapy. The Phase 0 results will provide the Company with valuable data from the point of view of further drug development, such as pharmacodynamic data, pharmacokinetic data and biomarker analysis. This will provide a significant competitive advantage at an earlier stage of the project, at a lower cost.

Conclusion of a contract for the first human administration of drug candidates in projects PB003 and PB004 – the so-called phase 0 clinical trial

In December 2022 Pure Biologics entered into an agreement with US-based Presage Biosciences Inc. to conduct a Phase 0 clinical trial in projects PB003 and PB004.

Presage Biosciences, Inc. (Seattle, USA) is an oncology biotechnology company with a research technology platform called CIVO (Comparative In Vivo Oncology). CIVO is a microinjection tool that enables simultaneous testing of multiple drugs and drug combinations. Given that evaluations of anticancer drugs carried out in preclinical models often fail to predict the drug's performance in the clinic, the CIVO platform was developed to provide a better bridge between laboratory and clinical research, particularly in the field of immuno-oncology (IO).

The purpose of Pure Biologics Inc.'s contracted study will be to evaluate the activity of the drug candidates in projects PB003 and PB004 in the human tumour microenvironment (TME), providing the opportunity to assess pharmacodynamic response in a heterogeneous tumour environment. The study will be conducted simultaneously for multiple molecules, including in combination with other drugs.

Phase 0 clinical trials are human studies aimed at obtaining information on pharmacodynamics (the mechanism of action of a drug) and pharmacokinetics (the processes by which a drug is introduced into the human body). Phase 0 in the key projects in Pure Biologics Inc.'s portfolio, PB003 and PB004, is in line with the Company's strategy of smart development and obtaining valuable data on the potential efficacy of the drug candidate as soon as possible, not only on safety. This represents a distinct advantage over the classic drug development scheme.

Up to 15 patients will be recruited for the study and the contract is for two years.

Under the agreement, Presage Biosciences has committed to, among other things, prepare the Company for meetings with the FDA, advise on eIND submission (estimated Q3/Q4 2023), qualify clinical sites, conduct the Phase 0 clinical trial, data management, monitoring and analysis of results. These activities on the part of an experienced partner will significantly accelerate the process and reduce the operational risks associated with this phase.

Cooperation with Relitech B.V.

In June 2022, the Company entered into a collaboration agreement with the Dutch company Relitech Besloten Vennootschap for the development of an innovative product to significantly improve the effectiveness of haemodialysis for patients suffering from chronic kidney disease (CKD). The company, using the PureApta™ technology platform, has committed to identifying aptamers that bind selected molecular targets to develop an innovative aptamer filter. Relitech, on the other hand, has agreed to develop a medical device using the above filter. Under the agreement, Relitech will design, manufacture and conduct initial testing of a prototype device using its own patented technologies. The laboratory proof-of-concept device has been committed to development in approximately 14 months. If successful, the two companies will jointly continue the further development of the device. The agreement additionally provides for full cooperation in the implementation of the tasks and indicates that both companies will actively seek access to external funding sources (grants, project competitions), with Pure Biologics as the lead party in this endeavour. The funds raised are to finance the downstream development of the product (to be governed by a separate agreement in the future) to the stage of a testable prototype suitable for testing on large animals (e.g. pigs) and for use in human patients in a clinical trial, prototype and safety and efficacy testing, and then to undergo the steps necessary for registration on the medical device market.

Establishment of Doto Medical Ltd.

On 1 December 2022 Pure Biologics S.A. formed SPV Doto Medical Ltd. to accelerate the commercialisation of a strategic project from its aptamer portfolio – PB103. The company has decided to spin off one of its most promising projects into a special purpose vehicle, hoping that this will enable faster commercialisation of the project PB103, and also open up avenues of financing that are not available to Pure Biologics due to, among other things, formal and legal restrictions. Detailed information on project PB103 can be found in point. V.7 above. At the date of publication of the report, Pure Biologics S.A. holds 100% of the shares in the capital of the Special Purpose Vehicle. At the date of publication of the report, Doto Medical is still in the organisation and has not yet commenced economic activity.

Engaging with an M&A advisor to commercialise the project PB103

December 2022. The Company entered into an agreement with an M&A advisor, Clairfield Partners LLC, based in New York, to broker the commercialisation of the Company's project and to attract a strategic investor interested in working together in a special purpose vehicle Doto Medical Ltd. Clairfield Partners LLC is an international firm providing corporate finance services, primarily in the area of mergers and acquisitions, to multinational corporations and financial investors. Clairfield International LLC successfully completes more than 130 transactions each year on both the sell-side and buy-side, with more than EUR 20 billion in total transaction value over the last five years.

The Advisor's main task is, among other things, to identify and attract for Doto Medical potential strategic partners interested in co-developing and subsequently acquiring, for a fee, the solution developed under project PB103, by presenting potential strategic partners to the Company, assisting in negotiations, and closing the transaction with the partner selected by the Company. As intended, Pure Biologics will retain control of the subsidiary until the asset is sold to a global med-tech device manufacturer.

Signing of agreement with Medical Research Agency for funding of further phases of the project PB004 (Pure BIKE)

Subsequent to the balance sheet date, in January 2023, the Company entered into an agreement with the Medical Research Agency for the implementation and funding of the Project "Phase 1 study of first-in-class bispecific ROR1xCD16 molecule in Patients with B-Cell Lymphoid Malignancies" under the Competition for the Development of Targeted or Personalised Medicine Based on Cellular Therapies or Protein Products [ABM/2022/5].

The scope of the co-funded project includes advanced pre-clinical stages and the first phase of clinical trials [for haematological indications] of the Issuer's existing drug development project PB004, including the development of lead drug candidate PB004 to improve the treatment of patients suffering from haematological malignancies, so-called B-cell lymphoid malignancies, including B-CLL and MCL.

The aim of the project PB004 is to find an antibody-based drug candidate acting on an immunotherapy strategy for the treatment of ROR1 receptor-expressing cancers. Project PB004, under development at the Company as early as 2019, could offer significant competitive advantages over other ROR1-targeting molecules that have shown promising results in preclinical and clinical studies in recent years.

The total value of the project is PLN 48 897 223,25 and the ABM's allocated grant amount is PLN 32 439 513,93. Funds under the project can be spent between 2022 and 2026.

Signing of agreement with Medical Research Agency for funding of further phases of the project PB003 (Pure Activator)

Subsequent to the balance sheet date, in January 2023, the Company entered into an agreement with a project entitled "A phase 1 study to investigate the safety, tolerability and efficacy of bispecific compound in subjects with advanced solid tumours " under the competition for the development of targeted or personalised medicine based on cell therapies or protein products [ABM/2022/5].

The scope of the funded project includes the generation and verification in a phase 1 clinical trial of a highly innovative bifunctional fusion protein (BFP) with a specific mode of action resulting from the involvement of multiple targets. BFP, through binding to the GARP-TGF- β 1 complex, blocks the release of TGF- β 1 thereby alleviating immunosuppression and improving the anti-tumour immune response in the tumour environment, and furthermore reduces the number of tumour cells and immunosuppressive cells through the NKG2D receptor.

The total value of the project is PLN 48 897 333,25 and the ABM's recommended grant amount is PLN 32 439 596,43. The project implementation period is 2022-2026.

Issue of G and H shares

On 12 December 2022, the Company's Board of Directors adopted a resolution to increase the Company's share capital within the limits of authorised capital through the issue of new series G and H shares in a private placement and to exclude the pre-emptive rights of existing shareholders. Pursuant to the Resolution, the Management Board increased the Company's share capital from PLN 225 400 to PLN 321 400, i.e. by PLN 96 000, through the issue of 450 000 G-series ordinary bearer shares with a nominal value of PLN 0,10 each and 510 000 H-series ordinary bearer shares with a nominal value of PLN 0,10. Agreements for the subscription of the Company's Series G bearer shares were concluded with 36 investors, including 11 qualified investors and 25 investors other than qualified investors. Series H shares were offered by private subscription to UNISONO CAPITAL Ltd., a limited joint-stock

partnership, in order to return the shares previously borrowed by UNISONO CAPITAL from selected shareholders of the Company.

The agreements for the subscription of Series G Shares were concluded between 15 and 19 December 2022. The subscription agreement for Series H Shares was concluded with UNISONO CAPITAL on 19 December 2022.

The Shares were taken up by way of private subscription pursuant to Article 431 § 2(1) of the Commercial Companies Code. Series G Shares were subscribed for through the submission of offers to subscribe for the Shares by the Company's Management Board to investors selected in accordance with the provisions of the Resolution and the acceptance of the submitted offers by the investors. Series H shares were taken up through the conclusion of a share subscription agreement with UNISONO.

The issue price of the Shares was uniform for the Series G Shares and the Series H Shares and amounted to PLN 20.00 per Share. The Shares were fully paid for with cash contributions. The above change was registered in the National Court Register on 13 January 2023.

In connection with the above-described increase of the Company's capital through the issue of 960,000 ordinary bearer shares within the framework of the authorised capital, UNISONO CAPITAL Ltd. on 11 December 2022 borrowed 510,000 shares of the Company admitted to trading on the regulated market from selected founding shareholders (Mr Filip Jeleń, Piotr Jakimowicz, Maciej Mazurek and Andrzej Trznadel) and subsequently sold these shares to investors acquired through a book-building process. The funds thus obtained were used in full to pay for the subscription of H shares. Following the subscription of 510,000 H shares and the registration of the changes in the KRS, UNISONO CAPITAL returned the shares to the lenders (the aforementioned selected shareholders of the Company) in January 2023. Thus, the shareholdings of Messrs Piotr Jakimowicz, Maciej Mazurek and Andrzej Trznadel returned to the level reported in the Condensed Financial Statements for the period 01.07-30.09.2022. Mr Filip Jeleń increased his shareholding as he participated in the aforementioned issue. Please refer to notes V.13 and V.15 of this report for detailed information on the shareholdings of the founding shareholders.

Registration in the National Court Register of the capital increase from the issue of series G and H shares and amendments to the articles of association

On 13 January 2023. District Court for Wrocław-Fabryczna in Wrocław, 6th Commercial Division of the National Court Register registered an increase in the Company's share capital by the amount of PLN 96 000 on the basis of the issue of 450 000 series G ordinary bearer shares and 510 000 series H ordinary bearer shares of the Company, each with a nominal value of PLN 0,10 carried out in accordance with Resolution of the Management Board No. 1/12/2022 of 12 December 2022 on increasing the Company's share capital within the limits of authorised capital.

As a result of the registration of the aforementioned amendments to the Articles of Association, the Company's share capital now amounts to PLN 321 400 [three hundred and twenty-one thousand four hundred zloty] and is divided into 3 214 000 [three million two hundred and fourteen thousand] shares, with a nominal value of PLN 0,10 [ten pennies] each.

In connection with the registration of the share capital increase, an amendment to § 5.2 of the Company's Articles of Association was registered. The Company announced this by ESPI report 1/2023 dated 13 January 2023.

Registration with the National Depository for Securities and listing of series G shares on the WSE

On 23 January 2023. The National Depository for Securities (KDPW S.A.) issued a statement on the registration with the KDPW of 450 000 series G bearer shares of the Company with a nominal value of PLN 0.10 each, marked with the ISIN code PLPRBLG00010, subject to their introduction to trading on the regulated market to which other shares of the Issuer marked with the aforementioned ISIN code were introduced.

According to the statement of the NDS, the registration was to take place within 3 days of the NDS receiving a decision on the introduction of the aforementioned shares to trading on the regulated market to which other shares of the Issuer bearing the aforementioned ISIN code had been introduced, but not earlier than the date indicated in that decision as the date of introduction of those shares to trading on that regulated market.

On 24 January 2023. the Management Board of the Warsaw Stock Exchange S.A., pursuant to Resolution No. 54/2023 of the Warsaw Stock Exchange, stated that 450 000 series G ordinary bearer shares of the Company with a nominal value of PLN 0,10 [ten pennies] each were admitted to trading on the parallel market.

At the same time, the WSE Board decided to introduce 450 000 series G ordinary bearer shares of the Company to trading on the parallel market as of 27 January 2023, subject to the registration of these shares by the National Depository for Securities on 27 January 2023 and their designation with the ISIN code "PLPRBLG00010".

Registration of H Shares with the NDS

On 24 January 2023. The National Depository for Securities (NDS) issued a statement on the registration with the NDS of 510 000 series H bearer shares of the Company with a nominal value of PLN 0,10 each, designated with the ISIN code PLPRBLG00051.

Registration of the H shares with the NDS took place on 26 January 2023. For the time being, the Company's Management Board will not apply for admission of the H shares to trading on a regulated market operated by the Warsaw Stock Exchange Inc.

Review of strategic options

On 17 February 2023, by ESPI message 14/2023, the Company announced that the Board of Directors had decided to initiate a review of the strategic options available to Pure Biologics Inc. to support the further development of its business.

The Company's Management Board will conduct analyses of strategic options in the areas of optimising running costs and sources of funding for key projects earmarked for further development. Given the circumstances, the Board assumed that the leading scenario would be to obtain financing from a new issue of the Company's shares, with alternative forms of potential transaction (public or to an identified entity) and sources of capital being reviewed (primarily in the geographical context).

In view of the above, the Management Board is conducting intensive activities aimed at raising additional cash to ensure the Company's financing and the possibility of continuing the development strategy and securing the Company's liquidity. Activities within the framework of the review of strategic options are carried out with the support and participation of the Supervisory Board.

In the opinion of the Board, the review of strategic options will help to ensure that the Company's key projects can be developed and that the funds obtained from grants and raised capital can be effectively planned. This should translate into the most favourable way of achieving the Company's strategic objective planned until 2024, which is to ensure the maximum number of projects whose results allow

to go through the next stages of drug development and commercialisation of the developed assets. The Board is confident that the implementation of this strategy will have a direct impact on maximising value for the Company's shareholders.

Term Sheet with ACRX Limited

On 17 March 2023, as part of the ongoing strategic options review process, the Issuer entered into a Term Sheet with ACRX Investments Limited, Nicosia ("ACRX") to negotiate a potential transaction to determine the terms and conditions on which ACRX will provide financing to the Company, and the terms and conditions on which the parties will cooperate in connection with the financing provided (the "Transaction") (the "Term Sheet"). The funds raised in the Transaction will be used to further fund the Company's research and development work, including covering the Company's own contribution to supplement the grant funds of PLN 64,88 million that were awarded to the Company in connection with:

- MRA's funding agreement for project PB003, as reported by the Issuer in current report No. 15/2023 of 9 March 2023, and
- MRA's funding agreement for project PB004, as reported by the Issuer in current report No. 4/2023 of 23 January 2023;

and for the continuation of the Company's development strategy directed towards the parallel development of projects PB003 and PB004, through which the Company plans numerous cost optimisations, primarily related to the conduct of phase 0 clinical trials.

Pursuant to the Term Sheet, ACRX will provide the Company with a convertible loan for shares in the Company of a new issue ("Convertible Shares"). The Loan will be granted for a period of 2 years and will amount to not less than PLN 12 000 000 and the interest on the Loan will be 10% per annum and will be converted into Convertible Shares ("Loan"). In the event that the Company decides to conduct a public offering of the Company's newly issued shares ("SPO"), ACRX will be obliged to participate in the SPO and take up Convertible Shares at the Company's request, with the number of Convertible Shares not exceeding 1/3 of the total number of shares offered by the Company in the SPO (the "Company Conversion Option"). In connection with the Company's exercise of the Company's Conversion Option, ACRX will be required to subscribe for the Convertible Shares at an issue price equal to the issue price set in the SPO for other investors, less a discount of 10% (the "Investor Price"). At the same time, at ACRX's request, the Company will be obliged to accept ACRX's subscription for Convertible Shares under the SPO at the Investor Price (the "ACRX Conversion Option").

In addition, the Company will offer ACRX to subscribe for 154 272 registered subscription warrants (the "Warrants"), and will entitle ACRX to subscribe for 154 272 shares in the Company at an issue price equal to the nominal value of the Company's shares.

The rights under the Warrants will expire 2 years after they are acquired by ACRX, with ACRX being obliged to exercise the rights under the Warrants if the Company's Conversion Option or ACRX's Conversion Option is declared. If the SOP is not carried out within 12 months of the signing of the Investment Agreement, the Investor will be entitled to exercise the rights under the Warrants, on the terms described in the Investment Agreement.

Notwithstanding the Convertible Shares, ACRX will be entitled to subscribe for further shares in the Company in the SPO.

The Convertible Shares and the shares resulting from the exercise of rights under the Warrants will be subject to a lock-up restriction, which will apply for a period of 12 months from the date ACRX takes up such shares.

The loan will be disbursed within 7 days of the date on which the last condition precedent is met, which includes the passing of the relevant corporate resolutions necessary to implement the Transaction.

It is the intention of the Parties to sign the Investment Agreement by 30 April 2023.

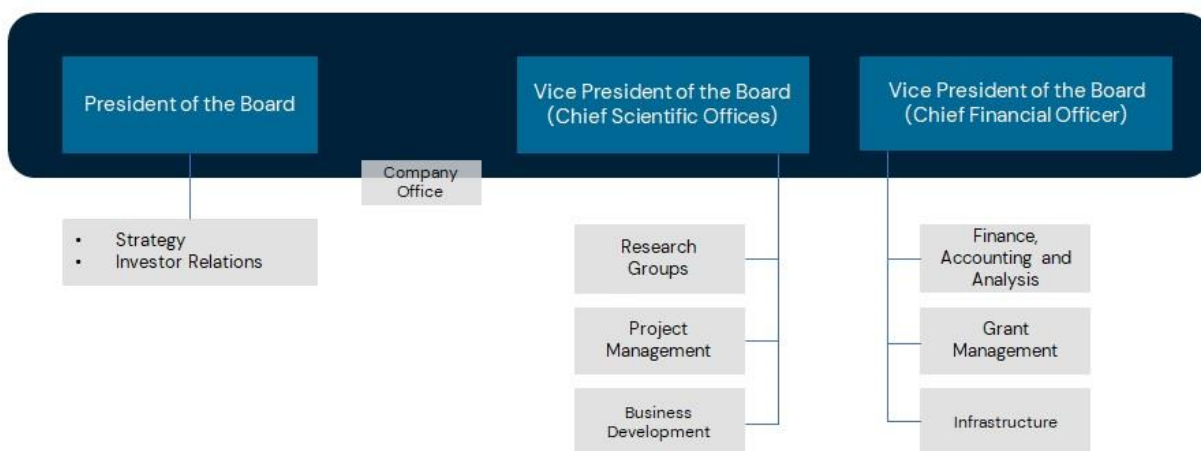
As part of its ongoing discussions with the Company, the Investor does not rule out further involvement in the development of the Company in order to meet its financial and capital needs in 2023 from the position of a strategic investor.

8. Changes in the basic principles of business management

During the period covered by this report, the composition of the Board of Directors changed so that, effective 4 April 2022, the two-member composition of the Board of Directors was expanded as a result of the appointment of Mr. Petrus Spee. Accordingly, the areas of responsibility of the individual members of the Executive Board have changed, which from 4 April 2022 are as follows:

Fig. 9: Areas of responsibility of Pure Biologics Inc.'s directors

Areas of responsibility of Board members of Pure Biologics S.A.



9. Shareholders who directly or indirectly hold substantial stakes of shares, including an indication of the number of shares held by such entities, their percentage share in the share capital, the number of votes arising therefrom and their percentage share in the total number of votes at the general meeting

The tables below present (in numbers and percentages) information on shareholders holding at least 5% in the structure of the Company's share capital and the total number of votes at the Company's AGM as at 31/12/2022 and the reporting date

Table 1: Shareholding structure as at 31/12/2022.

Shareholder	Number of shares	Number of votes at AGM	Share in capital	Share of votes at AGM
TFI Allianz Polska S.A.	302 298	302 298	13.41%	13.41%
Augebit FIZ*	189 720	189 720	8.42%	8.42%
PKO BP Bankowy PTE S.A.	130 732	130 732	5.80%	5.80%
Others	1 631 250	1 631 250	72.37%	72.37%
Total	2 254 000	2 254 000	100.00%	100.00%

* The beneficial owner of Augebit FIZ is Mr. Tadeusz Wesołowski, Vice Chairman of the Supervisory Board of the Company.

In connection with the increase of the Company's capital as described in section V.8 through the issue of 960,000 ordinary bearer shares within the framework of the authorised capital, UNISONO CAPITAL Ltd. on 11 December 2022 borrowed 510,000 shares of the Company admitted to trading on the regulated market from selected founding shareholders (Mr Filip Jeleń, Mr Piotr Jakimowicz, Mr Maciej Mazurek and Mr Andrzej Trznadel) and subsequently sold these shares to investors acquired through a book-building process. The funds thus obtained were used in full to pay for the subscription of H shares. After taking up 510,000 series H shares and registering the changes in the KRS, UNISONO CAPITAL returned the shares to the lenders (the aforementioned selected shareholders of the Company) in January 2023. Mr Filip Jeleń increased his shareholding because he participated in the aforementioned issue.

Table 2: Shareholding structure at the date of the report.

Shareholder	Number of shares	Number of votes at AGM	Share in capital	Share of votes at AGM
TFI Allianz Polska S.A.	324 298	324 298	10.09%	10.09%
Filip Jeleń	276 117	276 117	8.59%	8.59%
Augebit FIZ	189 720	189 720	5.90%	5.90%
Others	2 423 865	2 423 865	75.42%	75.42%
Total	3 214 000	3 214 000	100.00%	100.00%

* The beneficial owner of Augebit FIZ is Mr. Tadeusz Wesołowski, Vice Chairman of the Supervisory Board of the Company.

10. Information on agreements known to the Company, including those entered into after the balance sheet date, which may result in future changes in the proportions of shares held by existing shareholders

Conclusion of a letter of intent (term sheet) with ACRX Investments Limited

As announced in ESPI Announcement No. 16 of 17.03.2023, the Issuer entered into a Term Sheet with ACRX Investments Limited, Nicosia ("ACRX"), to negotiate the terms and conditions of ACRX's financing of the Company, and the terms and conditions of the cooperation between the parties in connection with the financing provided. According to the intentions of the parties as expressed in the

mentioned letter, if the investment agreement is concluded, the Company will offer ACRX to subscribe for 154 272 registered subscription warrants, which will entitle ACRX to subscribe for 154 272 shares. The rights under the Warrants will expire 2 years after their acquisition by ACRX, with ACRX being obliged to exercise the rights under the Warrants when the Company decides to make a public offering of the Company's new issue shares.

V. BASIC ECONOMIC AND FINANCIAL FIGURES

1. Commentary on the current and expected financial situation

The Company's financial position as at the balance sheet date is difficult but, following the receipt of cash from the new issue at the time of the report, has improved and does not give rise to concerns about the Company's going concern. As on 31 December 2022, cash amounted to PLN 2 259 thousand. At the same time, funds amounting to PLN 4 919 thousand were held in term deposits and treasury bonds. Funds from the issue of series G and H shares in the amount of PLN 19 200 thousand, which on the balance sheet date were deposited in the custody account of the brokerage house, should be included in this.

The Company meets its obligations on an ongoing basis and its cash position at the end of the year, together with events occurring after the balance sheet date and described in more detail in note 40 to the separate financial statements and section V, point 8 of this report, allows it to maintain its current liquidity and enables it to finance its planned investments in innovative projects. The Company's Management Board anticipates that the financial situation will be stable in the coming year. The Issuer's future revenues are strongly dependent on the commercialisation of research projects. For more detailed information, see Chapter V, points 5 and 6.

Net revenue from sales of commercial services

In the commercial services revenue line of the separate IAS/IFRS statement of profit or loss and other comprehensive income for 2022 r. The company reported a value of PLN 662 thousand. In the comparable period, i.e. in 2021, PLN 254 thousand was recorded. The 160.1% increase in the value of revenue from contract research sales in the reporting period compared with the comparable period is mainly due to the execution of the aptamer contract.

The sales structure was dominated by export sales, which in 2022 accounted for 60,3% of the sales value. This is a similar structure to 2021, when export sales accounted for 80,1%.

There is no seasonality in the business area in which the Company operates.

Operating costs

The value of operating costs recognised in the result amounting to PLN 38 279 thousand in the current year (PLN 28 492 thousand in 2021, +61%) represents the aggregate costs incurred by the Company in all areas of business activity, i.e. R&D, contract research, administration and management costs. The company estimates that as projects enter the capital-intensive phases of research, particularly phase '0' clinical trials, operating costs and in particular the costs of third-party services (subcontractors) may

increase in the coming quarters. However, these are planned costs and a phenomenon that the company has been aware of since the beginning of its work on drug projects.

In the structure of costs in the current year 61,1% (PLN 23 787 thousand) were expenditures on R&D projects for research work charged directly to the result of the. Costs of general administration and sales accounted for 37,4% (PLN 14 334 thousand) of operating expenses and the cost of services sold was less than 1%. The costs associated with the non-capitalised expenses related to the relocation to the new laboratory and office space accounted for a large proportion of the overheads.

In the structure of costs by nature, the largest item, 42,5%, are payroll costs (PLN 16 289 thousand) and this is a change of 1,5pc from 2021 (PLN 12 535 thousand). Aggregated with social security and other employee benefits, this item accounts for 49% of operating expenses. Next in the cost structure are: third-party services (21,0%, PLN 8 028 thousand) material and energy consumption (15,8%, PLN 6 069 thousand), and depreciation and amortisation (6,5%, PLN 2 497 thousand). In the year covered by this report, the structure of costs by type changed most in the field of third-party services, which is a phenomenon expected by the Company and such a trend was described many times before in interim reports. A y-o-y decrease in charges was recorded in the items of depreciation (PLN -423,3 thousand) and rents and leases (PLN -64,0 thousand), which was due to the expiry of rental/lease or leasing contracts. The largest increases of +144,9% (PLN 4 230,6 thousand) were recorded in third-party services and salaries +128,6% (PLN 3 754 thousand). This is largely the result of inflationary and salary pressures the company was subjected to in 2022.

Revenues from grants

Under the heading of grant income in 2022 the Company reported PLN 12 841 thousand and this is 27,8% less than in the comparable period. This change is a result of, among other things, the completion in 2021 of projects PB006 AptaMLN, PB007 MARA, PB008MAGBRRIS and PB010 and therefore the absence of identified grant income. Another reason for this state of affairs is the protracted process of recognising expenses as costs and, consequently, the recognition of the corresponding revenue in the income statement. For example, the Company incurred significant expenses in December 2022 for the prepayment of works related to phase 0 clinical trials, and the settlement of these works and, consequently, the calculation of income due to the Company will take place upon the receipt of protocols on the performed tasks. In 2023, one can expect some fluctuation and fluctuation of revenues in the interim reports due to the billing of expensive external services.

The largest revenues during the reported period were generated by projects: PB003 PureActivator which accounts for 38,2% of grant revenue and PB004 PureBike – which accounts for 27,9% of grant revenue. In the comparable period, although in reverse order, these projects also accounted for the largest stream of grant income. This is also a reflection of the Company's strategy, which places the greatest emphasis on projects PB003 and PB004.

Grant income should increase further in the coming year, as it is directly correlated to the costs of ongoing R&D work and these will increase as the work progresses and we enter further, more capital-intensive stages of individual projects.

Project costs

In 2022. The Company recognised PLN 23,787 thousand of project costs in the statement of profit or loss and other comprehensive income and this is 15.6 per cent. PLN 3,207 thousand) more than in the

comparable period. The main reason for the increase is the increase in spending on PB003 PureActivator, PB004 PureBike and PB005 Apta-MG, which together account for 78,3% of total project expenditure. As has been mentioned on several occasions, projects PB003 and PB004 in particular have been prioritised due to their greatest commercialisation potential, so work on them has been intensified. In the coming year, it is expected that the costs incurred for the two aforementioned projects will increase significantly due to the implementation of phase '0' studies and the advanced package of animal studies.

Operating profit (loss)

The loss from operations 2022 of PLN 24 629 thousand is the result of determining the Company's aggregate activity in its two core business segments, i.e. commercial contract research and the execution of innovative R&D projects. In the comparable period, the loss from operations amounted to PLN 10 482 thousand. (135,0%).

In 2022, as in previous years, when assessing and analysing this item in the P&L, it should be taken into account that the increasing scale, value of the R&D projects implemented by the Company, adopted in its strategic objectives, will increase the level of the Company's own share included in the costs of the projects carried out. This will have a direct impact on the value of the operating loss generated, however, the Company's own share of the costs incurred in carrying out R&D projects is treated by the Company as an investment in projects with a potential above-average rate of return, should they be successfully completed and commercialised.

It should be noted that the loss from operations in 2022 is an expected figure, although due to high inflation and pressure on salaries its amount is higher than the Company's assumption. The Company's long-term financial model assumes that the growing R&D project segment will be financed in the coming years mainly from external capital raised.

Net profit (loss)

The net loss in 2022, amounting to PLN 25 603 thousand, is mainly due to factors affecting the loss from operating activities and the results from financing activities. The results on financing activities were mainly shaped by the loss on the sale of investment fund participation units and interest on lease agreements for laboratory equipment used in the Company's operations.

Fixed assets

In this balance sheet item of PLN 8 838 thousand in 2022 (26,8% of total Assets), the main component is property, plant and equipment of PLN 8 419 thousand. The overwhelming majority (72,8%) is used highly advanced laboratory equipment used for R&D projects. Due to the relocation to new laboratory space and the retrofitting of laboratories, the ownership structure of property, plant and equipment has changed compared to last year. Currently, 68.6% is owned by the Company and only 31,4% used under rental, lease, rental or similar agreements.

The second major item of non-current assets is intangible assets. During the reported period, these amounted to PLN 399 thousand, representing 4,1% of non-current assets and 1,5% of total assets. These include the PureSelect2 and PureApta technology platforms.

The value of non-current assets increased by PLN 4 663 thousand (111,7%) compared to the comparable period and this mainly reflects the cost of retrofitting the Company's new laboratory and office space.

Current assets

Current assets in the reporting period amounted to PLN 24 171 thousand and accounted for 73,2% of the balance sheet total. They underwent a significant decrease of -43,8% y-o-y. (PLN 18 844 thousand) in relation to the value shown at the end of the comparable period. The main reason for this is the expenditure of cash to cover the Company's operating expenses and investments while there are no factors affecting the growth of this balance sheet item.

The largest item of current assets (62,9%) was trade and other receivables, which amounted to PLN 15 216 thousand. These consisted of receivables from subsidiaries (PLN 8 945 thousand) and other receivables (PLN 4 619 thousand). The latter mainly includes an advance payment to the Phase '0' clinical trial company and a guarantee deposit for leased space. This is complemented by budget receivables, including VAT to be refunded in the amount of PLN 1 501 thousand.

Equity

The value of equity as at 31.12.2022 was PLN 18 279 thousand. and is a direct result of the accumulation of the net loss generated in 2022 and losses from previous years. This is 46,33% of the value shown in 2021. However, in December 2022, the Company issued series G and H shares, which have not yet been registered as at the balance sheet date and the proceeds from their issue represent a contingent asset not recognised in the Company's balance sheet.

Long-term liabilities

Long-term liabilities at the end of the reporting period amounted to PLN 1 877 thousand and represent 5,7% of the balance sheet total. The largest item of long-term liabilities is leasing liabilities, which amounted to PLN 1 765 thousand as at the balance sheet date. The reason for the decrease in the value of this item over time is the decrease in the long-term portion of leases for laboratory equipment used for R&D work.

Short-term liabilities

Short-term liabilities at the end of the reporting period amounted to PLN 12 834 thousand, representing 38,9% of the balance sheet total and 131,3% higher than at the end of the comparable period, when they amounted to PLN 5 549 thousand. This is mainly due to a significant increase in trade payables, which accounted for 56,4% of total short-term liabilities. This mainly consisted of invoices paid after the balance sheet date for equipment and relocation to the new company space and an invoice for work on phase '0' clinical trials.

Further items in the structure of liabilities 21,7% (PLN 2 788 thousand) are deferred grants (advances), 8,8% (PLN 1 136 thousand) other liabilities (wages, taxes, etc.) and finance leases (8,5%). These liabilities are settled according to contractual deadlines agreed with suppliers and beneficiaries. In the grant settlement system, NCRD requires payment of the liabilities prior to the submission of a reimbursement or advance settlement application. It is therefore in the Company's interest to pay its liabilities more promptly in order to be able to make settlements earlier.

VI. STATEMENT OF THE MANAGEMENT BOARD OF PURE BIOLOGICS S.A. ON THE PREPARATION OF THE FINANCIAL STATEMENTS AND THE REPORT ON OPERATIONS

The Management Board of Pure Biologics S.A. declares that, to the best of its knowledge, the annual financial statements for 2022 and the comparative data have been prepared in accordance with the regulations applicable to the Company, and that they reflect in a true, reliable and clear manner the Company's property and financial situation and its financial result, and that the report on the Company's operations gives a true picture of the Company's situation, including a description of the main threats and risks.

Dr Filip Jan Jeleń

President of the Management Board,
CEO

Romuald Harwas

Vice-President of the Management
Board, CFO

APPENDIX 1

I. SEPARATE STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

	Note no	Period closed on 31.12.2022	Period closed on 31.12.2021
Continued activities			
Revenue from commercial services	1	662	254
Revenues from grants	2	12 841	17 778
Operating revenues		13 502	18 033
Depreciation and amortisation	3	2 497	2 920
Consumption of materials and energy	4	6 069	4 281
Rents and leases		1 914	1 978
Outsourced services		8 028	3 797
Payroll	5	16 289	12 535
Social security and other benefits	5	2 475	2 383
Remaining costs by nature		1 026	598
Total operating expenses	6	38 297	28 492
Other operating income	8	168	29
Other operating expenses	8	2	51
Operating profit (loss)		(24 629)	(10 482)
Financial revenue	9	199	93
Financial expenses	9	1 173	1 376
Gross profit (loss)		(25 603)	(11 765)
Income tax	10	-	-
Net profit (loss) on continued operations		(25 603)	(11 765)
Discontinued operations			
Profit (loss) on stopped operations	11	-	-
Net profit (loss) for the period		(25 603)	(11 765)
Other net total incomes			
Other total incomes		-	-
Total income		(25 603)	(11 765)
Profit (loss) per share in PLN		(11,53)	(5,30)
Diluted net profit per share in PLN		(11,36)	(5,22)

II. SEPARATE STATEMENT OF FINANCIAL SITUATION

	Note no	As on 31.12.2022	As on 31.12.2021
ASSETS			
Tangible assets	13	8 419	3 446
Intangible assets	14	399	714
Long-term financial assets measured at fair value	15	20	15
Deferred tax assets		-	-
Fixed assets		8 838	4 175
Trade and other receivables	16	15 216	9 290
Other assets	20	1 777	796
Cash and cash equivalents	17	2 259	6 178
Short-term financial assets measured at fair value	18	-	26 751
Financial assets measured at amortised cost	19	4 919	-
Fixed assets classified as assigned for sale		-	-
Current assets		24 171	43 015
ASSETS IN TOTAL		33 009	47 190
LIABILITIES			
Share capital	21	225	225
Supplementary capital	22	75 306	70 893
Other reserves		-	-
Retained profits / Uncovered losses	23	(31 632)	(19 867)
Current period result		(25 603)	(11 765)
Total equity		18 297	39 486
Deferred income tax provision		-	-
Provisions for employee benefits	24	39	42
Grants settled over time	27	74	112
Lease liabilities		1 765	2 000
Long-term liabilities		1 877	2 155
Trade liabilities	26	7 235	674
Lease liabilities		1 096	1 113
Other liabilities	26	1 136	20
Provisions for employee benefits	24	579	62
Grants settled over time	27	2 788	3 679
Short-term liabilities		12 834	5 549
Total liabilities		14 712	7 704
LIABILITIES IN TOTAL		33 009	47 190

III. SEPARATE STATEMENT OF CASH FLOWS

	Period closed on 31.12.2022	Period closed on 31.12.2021
OPERATING ACTIVITIES		
Net profit (loss)	(25 603)	(11 765)
Income tax, including:	-	-
Current income tax	-	-
Deferred income tax	-	-
Profit (loss) before tax	(25 603)	(11 765)
Adjustments	8 216	(12 270)
Depreciation and amortisation	2 497	2 920
Interest expense	329	227
Management options programme	4 413	2 787
Change in receivables	(5 925)	(7 938)
Change in liabilities, excluding credits and loans	7 654	(3 191)
Change in provisions	514	(456)
Change in inventory	-	-
Change in other assets	(981)	1 934
Change in grants to be settled	(929)	(8 587)
Income tax (paid) refunded	-	-
Profit (loss) from investing activities	623	34
Foreign exchange profit (loss)	22	-
Other adjustments	-	-
Net cash flows from operating activities	(17 387)	(24 035)
INVESTMENT ACTIVITIES		
I. Inflows	25 992	8 251
Inflows from sales of tangible and intangible assets	53	6
Inflows from sales of financial assets	-	8 245
Inflows from the sale of participation units	25 940	-
II. Outflows	10 648	36 729
Outflows on tangible and intangible assets	5 758	673
Outflows on financial assets	4 885	36 041
Purchase of shares in companies	5	15
Net cash flows from investment activities	15 345	(28 478)
FINANCIAL ACTIVITIES		
I. Inflows	-	52 110
Inflows from the issue of shares	-	52 110
II. Outflows	1 876	2 375
Expenditure on loans and borrowings	-	-
Outflows on interest and commissions	329	227
Payment of liabilities arising from financial leases	1 547	2 148
Net cash flows from financial activities	(1 876)	49 735
TOTAL CASH FLOWS	(3 918)	(2 778)
CHANGE IN CASH AND CASH EQUIVALENTS	(3 918)	(2 778)
CASH OPENING BALANCE	6 178	8 956
CASH CLOSING BALANCE	2 259	6 178

IV. SEPARATE STATEMENT ON CHANGES IN EQUITY

	Share capital	Supplementary capital	Retained profits / uncovered losses	(Total) equity
As on 1 January 2022	225	70 893	(31 632)	39 486
Net profit / loss for the period	-	-	(25 603)	(25 603)
Other total incomes	-	-	-	-
Total income for the period	-	-	(25 603)	(25 603)
Issue of shares	-	-	-	-
Distribution of the financial result	-	-	-	-
Share-based payments	-	4 413	-	4 413
As on 31 December 2022	225	75 306	(57 235)	18 297

	Share capital	Supplementary capital	Retained profits / uncovered losses	(Total) equity
As on 1 January 2021	165	16 815	(19 867)	(2 887)
Net profit / loss for the period	-	-	(11 765)	(11 765)
Other total incomes	-	-	-	-
Total income for the period	-	-	(11 765)	(11 765)
Issue of shares	60	51 291	-	51 351
Distribution of the financial result	-	-	-	-
Share-based payments	-	2 787	-	2 787
As on 31 December 2021	225	70 893	(31 632)	39 486

V. BASIC INFORMATION

1. Basis for the preparation of the financial statements

These financial statements were prepared in accordance with International Accounting Standards, International Financial Reporting Standards and interpretations issued by the International Accounting Standards Board approved by the European Union, hereinafter referred to as "EU IFRS", which entered into force by the end of 2022.

These financial statements were prepared in accordance with the historical-cost principle. These financial statements, with the exception of the cash flow statement, were prepared on an accrual basis.

These financial statements present fairly the financial position and assets of the Company as on 31 December 2022, the results of its operations, its cash flows and changes in equity for the year ended on 31 December 2022. Comparative figures for the statement of financial position were prepared as on 31 December 2021. In the case of the statement of comprehensive income, statement of cash flows and statement of changes in equity, comparative figures presented are for the year 2021.

These financial statements have been prepared based on the assumption that Company will continue as a going concern in the foreseeable future. The funds raised from the issue of shares in December 2022, further described in note 21, the commencement of the Board's review of strategic options, under which the Board anticipates that the leading scenario will be the raising of funding from a new issue of shares in the Company, the signing of a Term Sheet with a new investor (further described in note 40) and the raising of PLN 64 880 thousand from new grants and subsidies mean that, as at the date of approval of these financial statements, the Board of Directors of the Company does not conclude that there are any circumstances indicating a threat to the continued existence of the business of the Company.

2. Functional currency and presentation currency

The functional and presentation currency for the financial statements is the Polish zloty ("PLN"). Figures are presented in thousands of Polish zloty (PLN thousand), unless otherwise stated in specific situations.

Exchange rate adopted for measurement	As on 31.12.2022	As on 31.12.2021
[EUR/PLN]	4,6899	4,5994
[USD/PLN]	4,4018	4,0600
[GBP/PLN]	5,2957	5,4846
	Year closed on 31.12.2022	Year closed on 31.12.2021
Average exchange rates in the period		
[EUR/PLN]	4,6883	4,5775
[USD/PLN]	4,4679	3,8757
[GBP/PLN]	5,4900	5,3308

VI. EXPLANATORY NOTES TO THE FINANCIAL STATEMENT

1. Revenue from commercial services

The material structure of income from continuing operations in 2022 was as follows:

	Year closed on 31.12.2022	Year closed on 31.12.2021
Revenue from sales of services, including:	649	139
domestic sales	254	31
export sales	395	108
Revenue from other sales, including:	13	116
domestic sales	9	18
export sales	4	97
	662	254

There is no seasonality in the business area in which the Company operates.

2. Revenues from grants

Revenues from grant recognised by the Company in years 2021-2022 were as follows:

	Year closed on 31.12.2022	Year closed on 31.12.2021
PB001 MultiBody	1 190	1 402
PB002 AptaPheresis	848	1 362
PB003 PureActivator	4 906	4 195
PB004 PureBIKE	3 579	6 168
PB005 Apta-MG	1 969	3 206
PB006 AptaMLN	13	507
PB007 MARA	-	590
PB008 MAGBBRIS	96	81
PB010 PureSelect2	-	115
PB013 AlterCar	129	68
PB014 DualDrug	111	-
Other	-	84
Total revenues from grants	12 841	17 778

3. Depreciation and amortisation

Depreciation and amortisation in 2022 were as follows:

	Period closed on 31.12.2022	Period closed on 31.12.2021
Depreciation and amortisation of tangible assets	2 107	2 523
own	463	139
used under rental or lease agreements	1 644	2 384
Depreciation and amortisation of intangible assets	390	397
own	339	333
used under rental or lease agreements	50	64
Total depreciation and amortisation	2 497	2 920

4. Consumption of materials and energy

	Period closed on 31.12.2022	Period closed on 31.12.2021
Reagents	3 817	2 455
Laboratory supplies	857	1 271
Small laboratory appliances and equipment	616	269
Other materials and energy	778	287
Consumption of materials and energy	6 069	3 281

5. Employee benefit expenses

	Period closed on 31.12.2022	Period closed on 31.12.2021
Short-term employee benefits	11 876	9 353
Share-based payments	4 413	2 787
Other employee benefits	2 475	2 777
Total employee benefits costs	18 764	14 918

Headcount:

	Period closed on 31.12.2022	Period closed on 31.12.2021
Researchers	70	80
Administrative staff	26	21
Employees in total	96	101

6. Operating expenses

	Period closed on 31.12.2022	Period closed on 31.12.2021
Costs of general administration and sales	14 334	7 755
Cost of sales	176	157
Costs of R&D projects	23 787	20 580
Total operating expenses	38 297	28 92

7. Research and development costs

R&D project costs in 2021 and 2022:

	Period closed on 31.12.2022	Period closed on 31.12.2021
PB001 MultiBody	1 935	2 172
PB002 AptaPheresis	1 847	2 261
PB003 PureActivator	8 064	4 763
PB004 PureBIKE	7 396	6 413
PB005 Apta-MG	3 167	3 097
PB006 AptaMLN	278	1 190
PB008 MAGBBRIS	-	68
PB013 AlterCar	213	87
PB014 DualDrug	168	-
Total costs of subsidised projects	23 068	20 050
Unsubsidised projects	719	530
Total costs of R&D projects	23 787	20 80

8. Other operating costs and revenues

Specification of other operating revenue and expenses:

	Period closed on 31.12.2022	Period closed on 31.12.2021
Profit on the disposal of tangible assets	53	6
Settlements to be written-off	96	22
Other	19	2
Total other operating revenue	168	29
Impairment losses on receivables		47
Others	2	4
Total other operating expenses	2	51
Result on other operating activities	166	(22)

9. Financial revenue and expenses

Specification of financial revenue and expenses:

	Period closed on 31.12.2022	Period closed on 31.12.2021
Interest on deposits	199	93
Total financial revenues	199	93
Interest, including:	329	227
- lease interest	327	227
- other interest	2	
Other, including:	844	1 149
- revaluation write-offs on investment funds	822	1 085
- net foreign exchange losses	22	64
Financial liabilities in total	1 173	1 376
Result on financial activities	(974)	

10. Income tax

Tax charge shown in the statement of profit or loss and other comprehensive income:

	Period closed on 31.12.2022	Period closed on 31.12.2021
Current tax	-	-
Deferred tax	-	-
Total other operating revenue	-	-

Reconciliation of effective tax rate:

	Period closed on 31.12.2022	Period closed on 31.12.2021
Profit before taxation	(25 603)	(11 765)
Income tax calculated at the applicable rate of 19%	-	-
Tax effect of revenues which are not revenues according to tax regulations	12 873	16 553
Tax effect of non-deductible expenses under tax regulations	23 389	22 827
Adjustments reported in the current period in respect of tax of previous years	-	-
Tax base	(15 087)	(5 491)
Income tax expense on net profit	-	-
Effective tax rate	N/D	N/D

Deferred tax:

	Period closed on 31.12.2022	Period closed on 31.12.2021
Deferred tax assets		
Prepayments and accruals - research and development PAS 80%	14	-
Provision for unused holiday leave	110	10
Employer's social security contributions not paid on time	61	21
Provision for retirement severance pays	8	9
Leased assets - rental agreements	-	-
Leased assets - lease agreements	-	-
Remuneration not paid	13	-
Cellon Pharma	-	-
Valuation of foreign currency liabilities at balance sheet date	-	-
Total deferred income tax assets:	206	41
Provision for deferred income tax		
Costs of development works	6	3
Leased assets - rental agreements	15	16
Leased assets - lease agreements	20	9
Balance sheet valuation	1	-
Statistical interest on deposits and bonds	7	-
Revaluation write-offs on financial assets	-	188
Provision for deferred income tax	49	216
Total	157	(174)
Write-off	(157)	174
Reported value	-	-

Tax losses available for settlement in future years as at the end of 2022:

	Period closed on 31.12.2022	Period closed on 31.12.2021
2018 tax loss	635	635
2019 tax loss	4 359	4 359
2020 tax loss	8 440	8 440
2021 tax loss	6 810	-
Total	20 244	13 33

11. Stopped operations and assets held for sale

There were no stopped operations during the period covered by these financial statements. At the same time the Company does not expect any such activity to occur in the future, nor does it anticipate any reduction in its current activities.

The Company also had no material assets held for sale.

12. Earnings (loss) per share and diluted earnings per share

The profit and share figures used to calculate basic and diluted earnings per share are set out below:

	Period closed on 31.12.2022	Period closed on 31.12.2021
Weighted average number of ordinary shares in the period	2 221 123	2 221 123
Net profit (loss) (in PLN thousand)	(25 603)	(11 765)
Profit (loss) per share in PLN	(11,53)	(5,30)
Diluted		
Weighted average number of ordinary shares in the period	2 254 000	2 254 000
Events affecting the change in the basis of calculation of earnings per share:		
- share consolidation		
- share issue		600 000
Net profit (loss) (in PLN thousand)	(25 603)	(11 765)
Diluted net profit per share in PLN	(11,36)	(5,22)

13. Tangible assets

Specification of tangible assets in years 2021-2022 is set out below:

	As on 31.12.2022	As on 31.12.2021
Lands and buildings	95	76
Machines and equipment	6 132	3 265
Means of transportation	308	93
Other	1 884	12
Total	8 419	3 446

Changes in tangible assets in years 2021 and 2022 are shown below.

The year ended on 31 December 2022	Lands and buildings	Machines and equipment	Means of transportation	Other	In total
Gross balance sheet value as on 01 January 2022	867	10 324	627	62	11 880
- Purchases	95	4 474	527	1 882	6 979
- Liquidation	(867)	(3 860)	-	-	(4 726)
- Sales	-	-	(148)	-	(148)
Gross balance sheet value as on 31 December 2022	95	10 939	1 006	1 945	13 984
Depreciation and revaluation write-offs as on 1 January 2022	791	7 059	534	50	8 434
- Depreciation write-off	76	1 608	312	10	2 006
- Revaluation write-off	(867)	(3 860)	-	-	(4 726)
- Sales	-	-	(148)	-	(148)
Depreciation and revaluation write-offs as on 31 December 2022	791	4 807	698	60	5 565
Net balance sheet value as on 1 January 2022	76	3 265	93	12	3 446
Net value as on 31 December 2022	95	6 132	308	1 884	8 419

The year ended on 31 December 2021	Lands and buildings	Machines and equipment	Means of transportation	Other	In total
Gross balance sheet value as on 01 January 2021	867	9 374	503	50	10 794
- Purchases	-	957	124	12	1 093
- liquidation	-	(7)	-	-	(7)
Gross balance sheet value on 31 December 2021	867	10 324	627	62	11 880
Depreciation and revaluation write-offs as on 1 January 2021	636	4 795	444	43	5 918
- Depreciation write-off	155	2 270	90	8	2 523
- Revaluation write-off	-	(7)	-	-	(7)
Depreciation and revaluation write-offs as on 31 December 2021	636	4 795	444	43	5 918
Net balance sheet value as on 1 January 2021	231	4 579	59	8	4 876
Net value as on 31 December 2021	76	3 265	93	12	3 446

PURE BIOLOGICS INC.

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Ownership structure of tangible assets is shown below.

The year ended on 31 December 2022	Lands and buildings	Machines and equipment	Means of transportation	Other	In total
Own assets	95	3 794	-	1 884	5 773
Used under IFRS 16 leases	-	2 338	308	-	2 646
Total	95	6 132	308	1 884	8 419

The year ended on 31 December 2021	Lands and buildings	Machines and equipment	Means of transportation	Other	In total
Own assets	-	541	-	12	553
Used under IFRS 16 leases	76	2 724	93	-	2 893
Total	76	3 265	93	12	4 446

14. Intangible assets

Specification of intangible assets:

	As on 31.12.2022	As on 31.12.2021
Costs of completed development works	114	384
Patents and licences	266	202
Other	19	128
Total	399	714

Change in intangible assets:

The year ended on 31 December 2022	Costs of completed development works	Patents and licences	Other	In total
Gross balance sheet value as on 01 January 2022	1 125	288	484	1 898
- Purchases	-	447	-	447
- Sales	-	-	(404)	(404)
Gross balance sheet value as on 31 December 2022	1 125	735	81	1 942
Depreciation and revaluation write-offs as on 1 January 2021	741	86	357	1 184
- Depreciation write-off	270	113	6	390
- Revaluation write-off	-	270	(301)	(31)
- Sales	-	-	-	-
Depreciation and revaluation write-offs as on 31 December 2022	1 011	469	62	1 543
Net value as on 1 January 2022	384	202	128	714
Net value as on 31 December 2022	114	266	19	399

The year ended on 31 December 2021	Costs of completed development works	Patents and licences	Other	In total
Gross balance sheet value as on 01 January 2021	1 125	205	484	1 814
- Purchases	-	83	-	83
- Sales	-	-	-	-
Gross balance sheet value as on 31 December 2021	1 125	288	484	1 898
Depreciation and revaluation write-offs as on 1 January 2021	471	31	284	787
- Depreciation write-off	270	55	72	397
- Revaluation write-off	-	-	-	-
- Sales	-	-	-	-
Depreciation and revaluation write-offs as on 31 December 2021	741	86	357	1 184
Net value as on 1 January 2021	654	174	200	1 028
Net value as on 31 December 2021	384	202	128	714

Ownership structure of intangible assets:

	As on 31.12.2022	As on 31.12.2021
Own assets	370	634
Used under IFRS 16 leases	29	80
Total	399	714

15. Long-term financial assets

Principles for the valuation of non-current financial assets are set out in Note 30 "Financial instruments"

	As on 31.12.2022	As on 31.12.2021
Financial assets measured at fair value, including:		
- Shares of Doto Medical Ltd.	5	-
- Shares of ProAnimali Ltd.	15	15
Total	20	15

16. Trade and other receivables

Structure of trade and other receivables:

	As on 31.12.2022	As on 31.12.2021
Trade receivables	151	53
including from related entities	-	-
Receivables from grants payable	8 945	6 411
Budgetary receivables (including VAT to be refunded on acquired assets)	1 501	2 809
Other receivables from third parties	4 619	17
including from related entities	-	-
Net receivables in total	15 216	9 290
Revaluation write-off on receivables	-	-
Gross receivables	15 216	9 290

Trade receivables by maturity:

	As on 31.12.2022	As on 31.12.2021
Not overdue	146	-
Overdue, including:	4	53
0 – 30 days	4	50
30 – 90 days	-	3
90 - 180 days	-	-
180-360 days	-	1
over 360 days	-	-
TOTAL:	151	53

Currency structure of trade receivables:

	As on 31.12.2022	As on 31.12.2021
PLN	14	7
EUR	137	46
USD	-	-
GBP	-	-
CHF	-	-
Total	151	53

17. Cash

Structure of cash and cash equivalents:

	As on 31.12.2022	As on 31.12.2021
Cash on bank accounts	2 259	6 178
Total	2 259	6 178

Cash and cash equivalents by currency:

	As on 31.12.2022	As on 31.12.2021
PLN	1 922	6 163
EUR	30	15
USD	9	-
GBP	298	-
Total	2 259	6 178

18. Short-term financial assets measured at fair value

	As on 31.12.2022	As on 31.12.2021
Investment fund participation units	-	26 751
Total	-	26 751

19. Financial assets measured at amortized cost

	As on 31.12.2022	As on 31.12.2021
Bonds	998	-
Deposits	3 921	-
Total	4 919	-

20. Other assets

Structure of other assets:

	As on 31.12.2022	As on 31.12.2021
Domains, licences, software	975	552
Insurance policies	19	24
Issue costs to be transferred to aggio	679	-
Subscriptions	1	6
Equipment rent	67	82
Patents	32	111
Other	4	20
Total	1 777	796

21. Share capital

As on December 31, 2022, share capital was as follows:

	As on 31.12.2022	As on 31.12.2021
A Series	185 400	185 400
B1 Series	296 500	296 500
B2 Series	544 100	544 100
C Series	146 410	146 410
D Series	481 590	481 590
E Series	600 000	600 000,00
Total	2 254 000	2 254 000
Nominal share price	0,10	0,10
Value of share capital	225 400,00	225 400,00

Shareholding structure - number of shares, number of votes:

	As on 31.12.2022	As on 31.12.2021
TFI Allianz Polska S.A.	302 298	ND
Augebit FIZ	189 720	153 220
PKO BP Bankowy PTE S.A.	130 732	ND
Filip Jeleń	-	398 603
Aviva investors Poland TFI S.A.	ND	170 464
Maciej Mazurek	-	160 104
Piotr Jakimowicz	-	146 576
Other	1 631 250	1 225 033
Total	2 254 000	2 254 000

Shareholding structure – share in the total number of votes:

	<u>As on 31.12.2022</u>	<u>As on 31.12.2021</u>
TFI Allianz Polska S.A.	13,41%	
Augebit FIZ	8,42%	6,80%
PKO BP Bankowy PTE S.A.	5,80%	
Filip Jeleń	-	17,68%
Aviva investors Poland TFI S.A.		7,56%
Maciej Mazurek	-	7,10%
Piotr Jakimowicz	-	6,50%
Other	72,37%	54,35%
Total	<u>100,00%</u>	<u>100,00%</u>

22. Supplementary capital

In 2022 supplementary capital was as follows:

	<u>As on 31.12.2022</u>	<u>As on 31.12.2021</u>
Opening balance of supplementary capital	70 893	16 815
Increase	4 413	54 078
agio	-	51 291
Incentive Programme	4 413	2 787
Decrease		
Closing balance of supplementary capital	<u>75 306</u>	<u>70 93</u>

23. Retained profits (losses)

In 2022 retained profits and losses were as follows:

	<u>As on 31.12.2022</u>	<u>As on 31.12.2021</u>
Opening balance of profit (loss)	(19 867)	(8 112)
Increases	(11 765)	(11 756)
Net profit (loss) for the period	(11 765)	(11 756)
other	-	-
Decrease	-	-
Distribution of profit gained in the previous years	-	-
corrections of fundamental errors	-	-
Closing balance of supplementary capital	<u>(31 632)</u>	<u>(19 67)</u>

24. Provisions

Provision specification:

	As on 31.12.2022	As on 31.12.2021
Provision for retirement severance pays	40	50
long-term	39	42
short-term	1	8
Provisions for unused holiday leave	578	55
long-term	-	-
short-term	578	55
Total	618	105

Change in provisions:

	As on 31.12.2022	As on 31.12.2021
Opening balance of provisions	105	561
Increases	523	105
due to provisions for employee benefits	523	105
Decreases	10	561
due to provisions for employee benefits	10	561
Closing balance of provisions	618	105

25. Lease liabilities

Specification of lease liabilities:

	As on 31.12.2022	As on 31.12.2021
Long-term	1 765	2 000
Short-term	1 096	1 113
Total	2 861	3 114

Specification of lease liabilities by valuation method:

	As on 31.12.2022	As on 31.12.2021
Measured at amortised cost	2 861	3 114
Measured at fair value through current profit or loss	-	-
Total	2 861	3 114

Currency structure of lease liabilities:

	As on 31.12.2022	As on 31.12.2021
PLN	-	-
EUR	2 826	3 021
USD	36	93
GBP	-	-
CHF	-	-
Total	2 861	3 114

Specification of lease liabilities by maturity:

Year	Maturity				short-term	long-term	Total
	up to 1 year	over 1 year up to 3 years	within 3 to 5 years	over 5 years			
2022	1 096	1 049	716	-	1 096	1 765	2 861
2021	1 113	1 063	937	-	1 113	2 000	3 114

26. Trade and other liabilities

Specification of trade and other liabilities:

	As on 31.12.2022	As on 31.12.2021
Trade liabilities	7 235	674
Public law liabilities, including	384	20
personal income tax	74	3
social security	296	3
State Fund for the Rehabilitation of the Disabled	13	13
Employee Capital Plans	-	-
Salary liabilities	745	-
Other liabilities	6	-
TOTAL:	8 370	694

Age structure of trade liabilities:

	As on 31.12.2022	As on 31.12.2021
Not overdue	6 903	330
Overdue, including:	332	344
0 – 90 days	265	297
91 – 180 days	61	(3)
181 – 360 days	6	51
over 360 days	-	-
TOTAL:	7 235	674

Currency structure of trade liabilities:

PLN	3 360	551
EUR	36	8
USD	3 613	116
GBP	225	-
CHF	-	-
Total	7 235	674

27. Grants

Grant specification.

	As on 31.12.2022	As on 31.12.2021
Long-term, including	74	112
development subsidies	74	112
advances for research and development	-	-
Short-term, including	2 788	3 679
development subsidies	-	-
advances for research and development	2 788	3 679
Total	2 862	3 791

Grants and advances for grants by project:

	As on 31.12.2022	As on 31.12.2021
Long-term	74	112
PB012 PureApta – Completed development works	74	112
PB010 PureSelect2 – Completed development works	-	-
Short-term	2 788	3 679
PB001 MultiBody	2 000	1 489
PB002 AptaPheresis	703	363
PB003 PureActivator	-	-
PB004 PureBIKE	-	1 827
PB005 Apta-MG	31	-
PB013 AlterCar	54	-
PB014 DualDrug	-	-
Total	2 862	3 791

28. Financial instruments

Classification of financial instruments:

	Category in accordance with IFRS 9	Balance sheet value		Fair value	
		31.12.2022	31.12.2021	31.12.2022	31.12.2021
Financial assets					
Trade and other receivables	AFWZK	15 216	9 290	15 216	9 290
Cash and cash equivalents	AFWZK	2 259	6 178	2 259	6 178
Short-term financial assets measured at fair value	AFWwWGpWF		26 751		26 751
Financial assets measured at amortised cost	AFWZK	4 885			
Financial liabilities					
Bank loans and borrowings received	ZFWZK				
Other financial liabilities (leasing)	ZFWZK	2 861	3 114	2 861	3 114
Trade and other liabilities	ZFWZK	8 370	694	8 370	694

Abbreviations used:

AFWwWGpWF

– Financial assets measured at fair value through profit or loss,

AFWZK

– Financial assets measured at amortised cost

ZFWZK

– Financial liabilities measured at amortised cost

PiN

– Loans and receivables,

PZFWgZK

– Other financial liabilities measured at amortised cost,

DDS

– Financial assets available for sale

29. Capital risk management

The Company's financing structure is presented in the table below:

Financing structure	As on 31.12.2022	As on 31.12.2021
Interest-bearing credits and loans	-	
Leasing liabilities	2 861	3 114
Trade liabilities and other liabilities	8 370	694
Advances received for research and development	2 788	3 679
Cash and cash equivalents* (-)	-2 259	-6 178
Short-term financial assets measured at fair value		-26 751
Financial assets measured at amortised cost	-4 919	
Net debt	6 841	-25 442
Equity	18 297	39 486
Net equity and debt	25 138	14 045
Debt ratio	27%	ND

The Company's Management Board reviews the capital structure once a year. As part of the review, the Board analyses the cost of capital and the risks associated with each class of capital.

30. Financial risk management

For the financial periods ended on 31 December 2022 and on 31 December 2021, foreign exchange risk only included the risk associated with the existence of trade assets and liabilities balances denominated in foreign currencies, the values of which were as follows:

	<u>As on 31.12.2022</u>		<u>As on 31.12.2021</u>	
	Amount in foreign currency	Amount in PLN	Amount in foreign currency	Amount in PLN
Assets denominated in foreign currencies, including:				
in USD	752	3 310		
in GBP	56	298	-	-
in EUR	37	173	14	63
	845	3 781	14	63
Liabilities denominated in foreign currencies, including:				
in USD	821	3 613	4	18
in GBP	42	225	-	-
in EUR	8	36		1
	871	3 874	4	18

In the opinion of the Company's Management Board, possible changes in exchange rates by +/-10% would affect the results of the Company in the following way:

	<u>As on 31.12.2022</u>		<u>As on 31.12.2021</u>	
	Impact on net result	Impact on equity	Impact on net result	Impact on equity
Increase in exchange rate by 10%	(8)	(8)	4	4
Decrease in exchange rate by 10%	8	8	(4)	(4)

Interest rate risk

In 2022 financial assets and financial liabilities by type of exposure to interest rate risk were as follows:

	<u>As on 31.12.2022</u>	<u>As on 31.12.2021</u>
Financial assets		
interest-free	13 644	6 482
fixed interest rate		
variable interest rate	4 885	
	<u>18 528</u>	<u>6 482</u>
Financial liabilities		
interest-free	9 447	(110)
fixed interest rate		
variable interest rate	1 330	3 899
	<u>10 777</u>	<u>3 899</u>

The Company's Management Board believes that the actual changes in the interest rate will be within +/- 1pp and their impact on the Company's results from period to period would be as follows:

Impact on net result and equity	Year closed on 31.12.2022	Year closed on 31.12.2021
Interest rate increase of 1 pp	(21,12)	(19,97)
Interest rate decrease of 1 pp	21,12	19,97

31. Contingent assets and liabilities**Contingent assets**

As on 31 December 2022, contingent assets represented cash from the issue that was received by the Company below the balance sheet date. Further details are presented in note 23.

Contingent liabilities

The Company issues registered blank promissory notes for each co-financing agreement (for each project). This is required by regulations for publicly co-funded projects.

As security for the proper performance of obligations under the agreement, the Management Board of the Company provided security in the form of a blank promissory note bearing the clause "not to order". The security was established until the end of the durability period of the implemented projects. It is a requirement of the co-financing (grant) agreements.

The promissory notes are used as collateral for concluded lease agreements for means of transport and equipment.

Statement on voluntary submission to enforcement

In connection with the conclusion of the "Business Garden Wrocław Lease Agreement" (long-term space lease agreement), on 21.01.2022. The Management Board of the Company made a declaration in the form of a notarial deed, in which it subjects the Company Pure Biologics on the basis of art. 777 § 1 pt.

4 and 5 of the Code of Civil Procedure to the rigour of execution directly by the above-mentioned notarial deed to the amount of PLN 16 000 thousand (sixteen million).

32. Share-based payments

Incentive Programme

According to the valuation, the value of the incentive programme in each quarter of the years 2021-2023 is as follows:

period	Cost in the period	Cumulative cost
Q4 2021	689	689
Q1 2022	1 088	1 777
Q2 2022	1 100	2 878
Q3 2022	1 112	3 990
Q42022	1 112	5 102
Q12023	647	5 750
Q22023	655	5 405

33. Transactions with related entities

Transactions with individuals related to Pure Biologics Inc. w 2022 r.

Name of the related person	Description of the relation	Type/subject of the transaction	Transaction amount in the period 01.01.2022-31.12.2022	Amount of unsettled liability balances as on 31.12.2022
Filip Jeleń	President of the Management Board	due to appointment	486	32
		contract of employment	48	2
		other ***	468	-
Romuald Harwas	Vice-President of the Management Board	due to appointment	30	2
		due to services provided	296	30
		other ***	931	-
Pieter Spee*	Vice-President of the Management Board	due to appointment	21	2
		contract of employment	381	29
		due to services provided	254	28
Andrzej Trznadel	Member of the Supervisory Board	other ***	421	-
		due to appointment	31	2
		due to appointment	18	1
Tadeusz Wesołowski	Member of the Supervisory Board	due to appointment	18	1
Julia Bar	Member of the Supervisory Board	due to appointment	30	2
Andrzej Kierzkowski	Member of the Supervisory Board	due to appointment	18	1

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Mariusz Czekala	Member of the Supervisory Board	due to appointment	31	1
Dorota Trznadel	Person associated with a Member of the Supervisory Board	contract of employment	111	6
		other	3	-

(*) For the term of office

(***) – The item of remuneration from other titles includes the cost of the incentive programme for the members of the Management Board as further described in note 32 above. Up to the date of publication of this report, no transaction has yet taken place between the Company and the members of the Management Board on this account, in particular no issue of subscription warrants entitling them to subscribe for shares in the Company has taken place. This therefore represents an accrual expense.

Transactions with individuals related to Pure Biologics Inc. w 2021 r.

Name of the related person	Description of the relation	Type/subject of the transaction	Transaction amount in the period 01.01.2021-31.12.2021	Amount of unsettled liability balances as on 31.12.2021
Filip Jeleń	President of the Management Board	due to appointment	450	-
		contract of employment	72	-
Romuald Harwas	Vice-President of the Management Board	due to appointment	167	-
		due to services provided	283	30
Andrzej Trznadel	Member of the Supervisory Board	due to appointment	31	-
Tadeusz Wesołowski	Member of the Supervisory Board	due to appointment	18	-
Julia Bar	Member of the Supervisory Board	due to appointment	30	-
Andrzej Kierzkowski	Member of the Supervisory Board	due to appointment	18	-
Mariusz Czekala	Member of the Supervisory Board	due to appointment	31	-
Kinga Świtała *	A person associated with the President of the Management Board	contract of employment	213	-
Dorota Trznadel	Person associated with a Member of the Supervisory Board	contract of employment	177	-

* For the relationship period

34. Remuneration of key personnel

The remuneration of key management includes the remuneration of the members of the Company's Management Board. The remuneration paid to this group of executives by basic types of benefits is presented in the table below:

	Year ended 31.12.2022	Year ended 31.12.2021
Short-term benefits	1 220	620
Post-employment benefits	-	-
Other long-term benefits	-	-
Termination benefits	-	-
Share-based payments	25	62
Right to acquire warrants pursuant to the 2nd Incentive Programme	1 818	-
	3 062	683

35. Joint actions

During the period covered by these financial statements, the entity did not enter into any consortium agreements that it classified as joint operations. Nevertheless, the following agreements will have a financial impact during the financial year 2021 and beyond:

Consortium agreement of 7 June 2019

On 7 June 2019, the Company entered into an agreement with the Research Network - PORT Polski Ośrodek Rozwoju Technologii (Polish Centre for Technology Development), establishing a consortium operating under the partnership principles set out in the agreement for the joint implementation of project PB006 (AptaMLN). The agreement sets out the rights and obligations of the parties as well as the principles of cooperation and division of work of the consortium members.

The effects of the agreement appear in the 2022 financial statements.

Consortium agreement of 27 August 2020

On 27 August 2020, the Company entered into an agreement with the University of Wrocław and Oslo University Hospital establishing a consortium operating under contractually defined partnership principles for the joint implementation of project PB014 (DUALDRUG). The agreement sets out the rights and obligations of the parties as well as the principles of cooperation and division of work of the consortium members.

The effects of the agreement appear in the 2022 financial statements.

Consortium agreement of 10 September 2020

On 10 September 2020, the Company entered into an agreement with the University of Wrocław and Oslo University Hospital establishing a consortium operating under contractually defined partnership principles for the joint implementation of project PB013 (ALTERCAR). The agreement sets out the rights and obligations of the parties as well as the principles of cooperation and division of work of the consortium members.

The effects of the agreement appear in the 2022 financial statements.

Cooperation agreement of 3 June 2022

On 3 June 2022, the Company entered into a collaboration agreement with the Dutch company Relitech Besloten Vennootschap for the development of an innovative product to significantly improve the haemodialysis efficiency of patients suffering from chronic kidney disease (CKD). The concluded agreement sets out the obligations of the parties, as well as the timeframe for carrying out the tasks.

The effects of the agreement appear in the 2022 financial statements.

36. Remuneration of the audit firm

The remuneration of the audit firm for auditing the Company's separate financial statements prepared in accordance with IFRS for the period from 1 January 2022 to 31 December 2022 amounts to PLN 38 thousand.

37. Substantial litigation

During the period covered by these financial statements and as at the date of their preparation, there were no material litigations pending against the Company that could have or had had in the past a significant effect on the Company's financial position and results on operations.

38. Impact of the situation in Ukraine on the financial statements

In the opinion of the Company's Management Board, the occurrence of the armed conflict in Ukraine has and will have an indirect effect on the financial position of Pure Biologics Inc. The Company does not cooperate with entities registered in Ukraine, Russia and Belarus, nor does it provide services to or procure from counterparties from the above countries. The Company is also not affected by risks related to the availability of employees coming from Ukraine, and sanctions imposed on private citizens of Russia and Belarus, as well as financial institutions from the aforementioned countries. In terms of cyber security, the Company has not recorded any incidents. All systems are running smoothly and are subject not only to routine, but also, in the current situation, to increased testing and safeguards.

However, the Company is subject to macroeconomic mechanisms and factors such as exchange rate increases, inflation or interest rate increases will affect the Company's performance.

39. Analysis of the actual and potential impact of the COVID-19 pandemic on the Company's operations

Due to the ongoing pandemic, global factors continued to be present in 2022, which had a slight impact on the implementation of some R&D work in the company's projects, particularly in relation to supply chains. However, there were no noticeable disruptions or delays resulting from this.

40. Events after the balance sheet date affecting the assessment of the Company's financial position

Proceeds from the issue of series G and H shares

On 13 January 2023 District Court for Wrocław-Fabryczna in Wrocław, 6th Commercial Division of the National Court Register registered an increase in the Company's share capital.

In connection with the registration of the aforementioned changes, on 17 January 2023, the Company received cash from the issue less the commission of the Brokerage House.

Review of strategic options

On 17 February 2023, by ESPI message 14/2023, the Company announced that the Board of Directors had decided to start reviewing the strategic options available to Pure Biologics Inc. to support the further development of its business.

Term Sheet z ACRX Limited

On 17 March 2023, as part of the ongoing strategic options review process, the Issuer entered into a Term Sheet with Nicosia-based ACRX Investments Limited ("ACRX") to negotiate a potential transaction to set out the terms and conditions for the provision of financing to the Company by ACRX, and the terms and conditions on which the parties will cooperate in connection with the financing provided (the "Transaction") (the "Term Sheet"). The funds raised in the Transaction will be used to further fund the Company's research and development work, including covering the Company's own contribution to supplement the grant funds of PLN 64,88 million that were awarded to the Company in connection with:

- MRA's funding agreement for project BP003, as announced by the Issuer in current report No. 15/2023 of 9 March 2023; and
- MRA's funding agreement for project BP004, as announced by the Issuer in current report No. 4/2023 z of 23 January 2023;

and for the continuation of the Company's development strategy directed towards the parallel development of projects PB003 and PB004, through which the Company plans numerous cost optimisations, primarily related to the conduct of phase 0 clinical trials.

41. Approval of the financial statements

These separate financial statements of PURE BIOLOGICS INC. for the year ended 31 December 2022 were prepared in accordance with International Financial Reporting Standards, as adopted by the European Union, and approved by the Management Board on 31 March 2023.

Dr Filip Jan Jeleń, MBA

President of the Management Board, CEO

Romuald Harwas

Vice-President of the Management Board, CFO

Dr Petrus Johannes Louis Spee

Vice-President of the Management Board, CSO

Brygida Rusinek

Person responsible for the preparation
of the financial statements