pure biologics®

BRIEF SUMMARY OF THE ANNUAL REPORT AND FINANCIAL STATEMENTS

FOR THE PERIOD 01.01.2021–31.12.2021

Contents

PART I

I. LETTER FROM THE PRESIDENT OF PURE BIOLOGICS S.A.

Providing you with a report presenting the Company's achievements in 2021 is an opportunity for me to summarise the past year and present plans for the further development of Pure Biologics S.A.

In 2021, we continued the consistent implementation of a multi-year strategy. It was a period of hard and organic work, resulting in significant progress in all five major R&D projects. The Company's immuno-oncology portfolio consists of three antibody-based projects, each aimed at overcoming immuno-suppression – the main obstacle to the removal of cancerous tumours by the human immune system. The most important achievements in the PB001 project are the successful first preclinical tests on in vivo tumour models conducted to test the safety of a novel therapeutic concept. The test molecule was safe at doses up to 250 mg/kg, which is a multiple of the expected therapeutic dose for the antibody. I expect that in 2022, preclinical proof-of-concept testing on various animal models will be conducted for all immuno-oncology projects, and preclinical lead candidates will be selected for further development. Positive results will justify the referral of specific projects to clinical trials and enable their future commercialisation. For the PB004 project, we have already signed an agreement with Jackson Laboratory (JAX), a leading US company providing animal testing services worldwide, to start the first pilot preclinical in vivo study. This will be an important milestone for this project and the results will indicate key parameters for the design of the PB004 clinical development.

Pure Biologics' portfolio of targeted plasmapheresis projects, based on our own solutions, currently consists of two projects that aim to significantly improve the treatment of rare neurological diseases in patients with Neuromyelitis Optica (NMO) and Myasthenia Gravis (MG). In 2021, we conducted the first phase of a preclinical study in the first programme, and the results were used to plan the subsequent phases. In both PB002 and PB005 we expect to achieve preclinical proof of concept in 2022. These projects were the beginning of a pathway to exploit the potential of aptamers for therapeutic applications.

In order to fully exploit the market potential of our own technology platforms and leverage the know-how and IP developed over the years, we began commercialising our proprietary PureApta platform last year by licensing the technology to other entities. To date, we have concluded two such agreements, including with the French Novaptech SAS. In line with this model, we are negotiating further, attractive for the Company licensing agreements, which we believe will generate positive cash flows from upfront payments and royalties. The ability to initiate collaboration in this area is undoubtedly a confirmation of the growing interest in the use of aptamers in therapies and diagnostics and Pure Biologics' position as a global leader and pioneer in the development of this class of biological molecules for medical applications.

Given the time it takes to find a pharmaceutical partner to develop drug candidates in advanced clinical phases and to process licensing agreements, this year we have already entered into an agreement with Destum Partners Inc., a renowned US-based broker dedicated to finding partners and brokering buy-sell transactions for assets in the market of new drugs and therapies. In addition, as part of our own sales efforts, we conducted activities to promote the developed assets and technology platforms at more than a dozen partnering and scouting industry events for potential partners and licensees. As a result, we have established a number of valuable contacts with potential partners with whom we wish to commercialise the results of our R&D work once they have reached sales level that provides a satisfactory return.

We are constantly strengthening our international team of specialists. In mid-2021, Dr Peter Spee joined Pure Biologics as Chief Scientific Officer. Dr Spee is a medical biologist and manager with many years of experience, including that gained at one of the largest global biopharmaceutical companies. Recent months have shown that he is a huge reinforcement for the Company, bringing extensive subject matter knowledge of the biological drug development process and very broad competence in the field of immuno-oncology, as well as experience in managing teams of scientists and scientific research and development processes. In addition, he is responsible for all scientific concepts and work within the current and planned project portfolio. He will also support the commercialisation process with pharmaceutical partners. Appreciating the contribution of Dr. Spee and the challenges ahead for the Company, the Supervisory Board decided to appoint Dr. Spee to the Management Board.

The past period was also a time of intensive work on the preparation of a new laboratory and office complex with a total area of over 3,000 square metres, comprising more than thirty units, six of which are completely new laboratories intended for the development of innovative, advanced research methods to extend the range of work that can be carried out independently by the Company. The entire Pure Biologics community is looking forward to the end of this year to move into even more modern laboratories that will improve efficiency and comfort and enable the Company's ambitious strategy.

In 2022, Pure Biologics also intends to complete the conceptualisation of several new drug development programmes and aptamer technologies and plans to initiate selected projects, both those in the early phases of drug development and, taking advantage of market opportunities, those that will allow clinical trials to begin as early as late 2022. The expansion of the current portfolio of developed assets is expected to enable the effective use of our scientific, infrastructural and operational potential and increase the anticipated volume of partnering transactions with pharmaceutical companies.

The global situation related to the COVID-19 pandemic had a limited but non-negligible impact on the timing and type of activities carried out. In addition, the conflict in Ukraine is putting significant pressure on the macroeconomic situation. I believe that current trends will not have a long-term impact on our ability to build value based on the IP we generate. However, these factors enforce the need to make business models more flexible in order to be able to fully exploit the intellectual and operational potential we built up and take advantage of market opportunities.

In summary, after a year of intense research and conceptual activity, the coming year will be full of exciting developments, both bringing us closer to commercialisation of our assets under development

and opening up new growth prospects that build Pure Biologics' value. As I encourage you to read the report, I thank you for your trust, your continued support and your belief in our shared success.

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 mean of the exchange rates published by the National Bank of Poland on the last day of each month:

- period from 01/01/2021 to 31/12/2021 PLN 4.5775
- period from 01/01/2020 to 31/12/2020 PLN 4.4742

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 at 31/12/2021 PLN 4.5994
- As at 31/12/2019 PLN 4.6148

	Year closed on 31 December 2021	**Year closed on 31/12/2020**	**Year closed on 31/12/2021**	**Year closed on 31/12/2020**
	thousand PLN	thousand PLN	thousand EUR	thousand EUR
Operating revenues	18,033	16,659	3,939	3,723
Total operating expenses	28,492	28,315	6,224	6,329
Operating profit (loss)	(10,482)	(11,554)	(2,290)	(2,582)
Profit (loss) before tax	(11,765)	(11,756)	(2,570)	(2,627)
Net profit (loss)	(11,765)	(11,756)	(2,570)	(2,627)
Net cash flows form operating activities	(24,035)	(1,353)	(5,251)	(302)
Net cash flows from investment activities	(28,478)	(561)	(6,221)	(125)
Net cash flows from financial activities	49,735	(3,051)	10,865	(682)
Total net cash flows	(2,778)	(4,965)	(607)	(1,110)

	As at 31/12/2021	**As at 31/12/2020**	**As at 31/12/2021**	**As at 31/12/2020**
	thousand PLN	thousand PLN	thousand EUR	thousand EUR
Total assets / liabilities	47,190	18,942	10,260	4,105
Fixed assets	4,175	5,904	908	1,279
Current assets	43,015	13,038	9,352	2,825
Equity	39,486	(2,887)	8,585	(626)
Liabilities and provisions for liabilities	7,704	21,829	1,675	4,730
Long-term liabilities	2,155	3,828	468	830
Short-term liabilities	5,549	18,000	1,206	3,901
Average weighted number of ordinary shares	2,221,123	1,654,000	2,221,123	1,654,000
Profit (loss) per ordinary share (in PLN / EUR)	**(5.30)**	**(7.11)**	**(1.16)**	**(1.59)**
Number of shares at the end of the period	2,254,000	1,654,000	2,254,000	1,654,000
Book value per share (in PLN / EUR)	**17.78**	**(1.75)**	**3.87**	**(0.38)**

III. ANNUAL FINANCIAL STATEMENTS OF PURE BIOLOGICS S.A.

The annual separate financial statements of Pure Biologics S.A. are 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

Pure Biologics S.A. On 30 April 2014, (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 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: ul. Duńska 11. The Entity has been assigned the NIP number 8943003192 and the 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.

Management Board

As at 31 December 2021 and as at 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. At its meeting on 30 March 2022, the Supervisory Board of the Company adopted a resolution to appoint Mr Pieter Spee as Chief Scientific Officer of the Company as of 4 April 2022.

Supervisory Board

As at 31 December 2021 and as at 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 Czekała - 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 Czekała - 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 Czekała 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 Czekała are also the independent members within the meaning of the Act on Statutory Auditors.

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

Pharmaceutical market - key factors and trends

Among the most intensively developing therapeutic areas, besides the recently leading infectious disease treatment sector, there are treatments for neurological disorders, immunological diseases and rare diseases. This represents areas of long-standing interest to the Company.

The pharmaceutical market of new medicines is largely shaped by the duration and termination of exclusivity (so-called LOE – loss of exclusivity), i.e. expiry of patent protection for medicines already on the market and thus the authorisation of generic and biosimilar preparations. It is estimated that due to the expiry of exclusivity, over the five years following 2022, pharmaceutical companies will face a total annual loss of revenue from the sale of registered medicines of approximately USD 150 billion. In order to maintain growth rates or at least keep revenue levels unchanged, companies in the pharmaceutical sector must therefore regularly bring completely new drugs to the market. This means constantly supplementing their R&D project portfolio with new active molecules (chemical or biological). Given the growing trend among the Big Pharma companies to look for new solutions in the market, this translates directly into increased demand for new molecules developed by others, rather than being generated in extensive in-house R&D departments. This demand is the main driver of growth for small and medium-sized biotech and pharmaceutical companies and is reflected in the steadily growing market for partnering and M&A (mergers & acquisitions) transactions, both in terms of value and volume (more details are presented later in the report).

Drugs approved by FDA in 2021

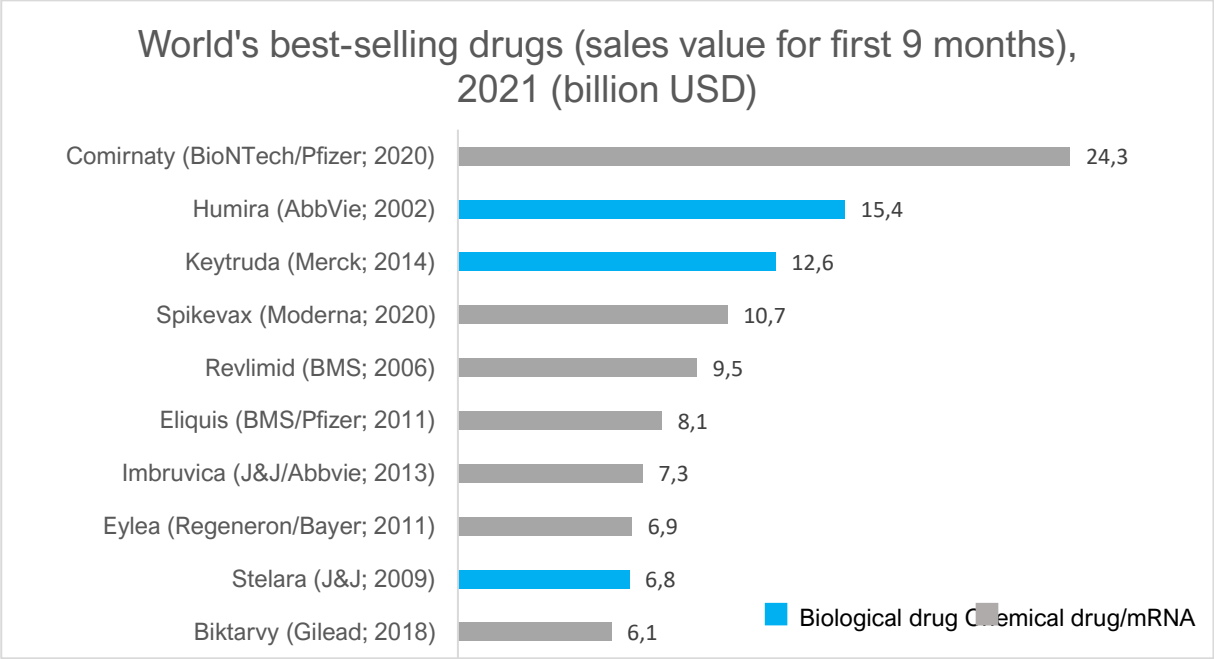
Because of its size, and because of the leading role of its biotech and pharmaceutical companies, the US drug market is a good indicator of global market trends. Many new medicinal substances make their debut in the US before being authorised in other areas or at the same time as appearing in other markets. In 2021, the FDA (Food and Drug Administration), a US government body that approves medicinal substances and other products for the US market, approved 55 new drugs (including vaccines and gene therapies). This figure shows a continuing trend, with 55 drugs approved in 2020, 48 in 2019 and 58 in 2018.

The 55 therapeutics approved in 2021 include only fully approved substances that have passed the regular clinical trial pathway, and therefore does not include, for example, vaccines authorised on an emergency basis. Of the 55 drugs approved for the US market, 15 were intended for anti-cancer therapies. Of these, four are biologicals, including two antibody-drug conjugates, one is a monoclonal antibody and one is a bispecific antibody. The figures for 2021 show that the share of newly registered biological molecules, especially the most technologically advanced ones such as bispecific antibodies, is still a minority compared to non-biological (chemical, small-molecule) drugs. Nevertheless, it should be noted that this share is growing. Already in the first two months of 2022, the number of bispecifics approved for therapy has increased by further three (including for the treatment of ocular cancer and other eye diseases), with further two awaiting registration in Europe and the US. In turn, another thirteen bispecific molecules are in phase III clinical trials. Combined with the therapeutic success of this group of drugs, previously unattainable with non-biological molecules, as well as the level of revenue generated from their sales, this indicates their high market potential.

Best-selling drugs in 2021

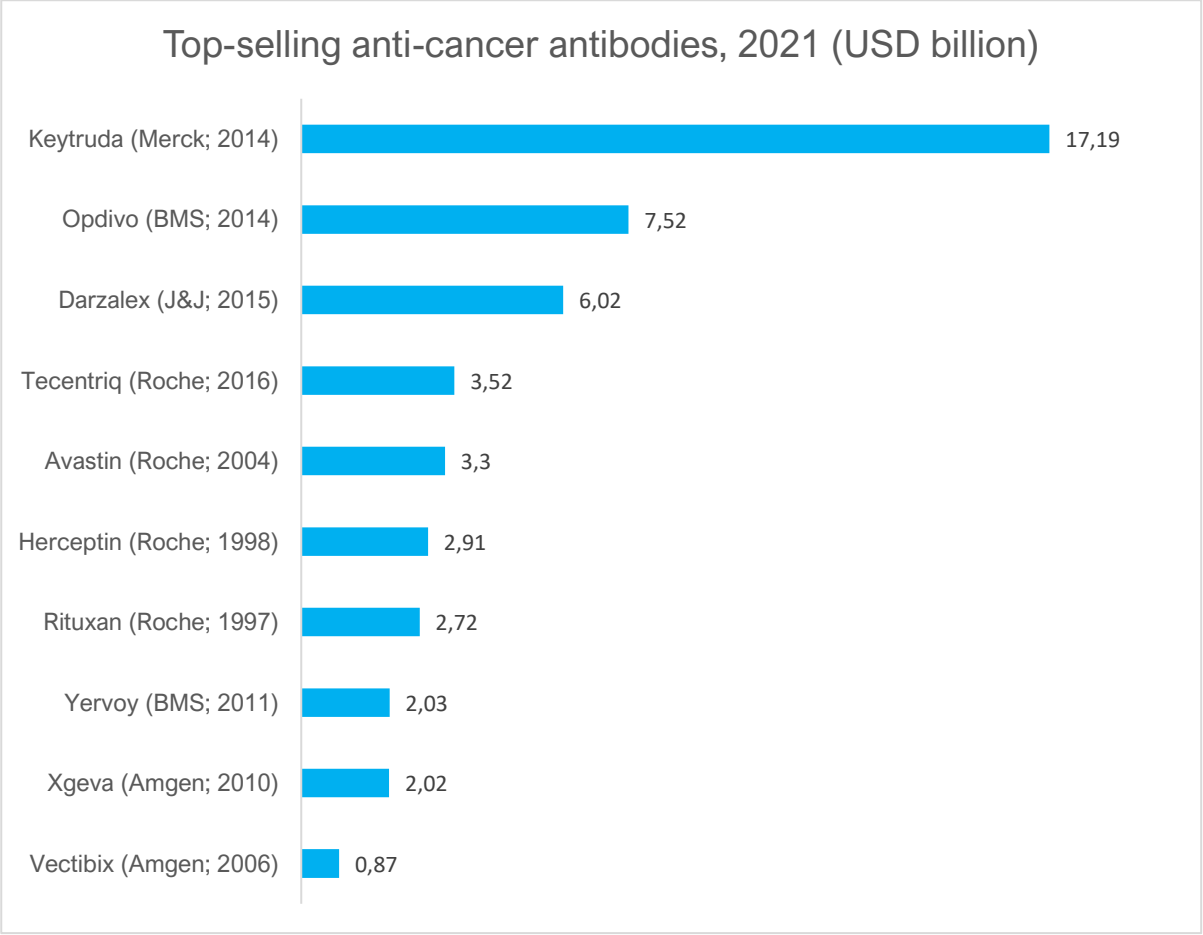
In 2021, according to a forecast based on sales data from the first nine months, the top 10 best-selling pharmaceuticals included three drugs based on active biological molecules (monoclonal antibodies) (Figure 1). Two places were occupied by COVID-19 vaccines, followed by an HIV drug, reflecting global trends and resources devoted to developing therapies in these segments.

Fig. 1: Best-selling drugs.



In contrast, the size of the overall market for antibody-based cancer drugs is dominated by Keytruda and other formulations for which (with a few exceptions) patent protection is about to expire or has already expired (LOE - loss of exclusivity). The sales value should be complemented by biosimilars based on these solutions, but introduced by other companies.

Fig. 2: Best-selling drugs based on anti-cancer antibodies.



In contrast, among the ten immuno-oncology drugs with the highest sales, as many as eight are biological molecules and only two are chemical drugs. This is directly related to their mode of action - therapeutic effect through modulation of the immune system is the domain of biological molecules rather than chemical drugs.

Review of reference transactions in 2020-2021 / Review of licensing trends and M&A

In 2021, the total value of disclosed transactions in the biopharmaceutical market was a record USD 213.5 billion (up 7.8% from 2020), of which approximately 30% were in the oncology segment, with a total value of USD 73.1 billion.

In contrast, 1/3 of all oncology segment deals in 2021 were in the immuno-oncology area. In addition, of the 24 contracts signed with a potential total value of more than USD 1 billion, 9 were contracts specifically for immuno-oncology solutions. Despite a lower share of the IO segment in oncology transactions compared to the previous year, an increase in the number of deals involving multispecific molecules (including bispecific antibodies) and antibody-drug conjugates was observed.

Significantly, there was a significant increase in the share of transactions involving molecules at later stages of development (i.e. in phase II or phase III clinical trials) in 2021 compared to previous years. This is explained by the much greater access of drug development companies to capital markets. In 2021, companies in the 'biotech' sector collectively raised a record USD 39.6 billion from venture capital (VC) funds and USD 24.2 billion from the stock market. This enabled them to build the value of their assets and project portfolios much more profitably, without having to sell them off at an earlier stage.

Novartis bought the rights to the newly registered in China antibody tislelizumab from BeiGene for a USD 650 million upfront payment to further develop the antibody from pre-clinical to registration in Europe, the US and other countries. The total amount of the licence agreement is USD 2.2 billion. Tislelizumab blocks PD-1, an immune checkpoint targeted by other drugs on the market, including the best-selling immuno-oncology drug Keytruda. This example shows that, despite strong competition, a new drug has a chance to make its mark on the market by demonstrating its superiority over its competitors, and in this case it is the superior biological properties of the antibody in question.

Large pharmaceutical companies are also interested in gaining access to smaller companies' patented technology platforms, as can be illustrated by Eli Lilly paying a USD 60 million upfront payment to Merus for the rights to its bispecific antibody acquisition and development technology. The potential value of the entire deal is USD 1.68 billion.

The value of disclosed M&A transactions in the biopharmaceutical market reached USD 118.4 billion in 2021, which implies a 32% decrease compared to 2020. This is attributed to the uncertainties surrounding the COVID-19 pandemic and the tendency of Big Pharma companies to conserve resources, with a preference towards smaller bolt-on strategic acquisitions rather than large mega-mergers. Nevertheless, this translated into a total of USD 19.7 billion in the oncology segment.

Among the top 5 highest valued (> USD 1 billion) M&A transactions in the oncology segment, there are two that deserve special attention. Amgen has acquired immuno-oncology therapeutics company Five Prime Therapeutics for USD 1.9 billion. The second example is Sanofi's acquisition of Amunix Pharmaceuticals for a USD 1 billion upfront payment. Through this transaction, Sanofi has added to its portfolio of immuno-oncology projects (including Bispecific T-cell engagers) and gained access to patented technologies that improve the properties of therapeutic molecules.

It is also worth mentioning the acquisition of TeneoOne by AbbVie due to the main asset on which the deal was based. This is the bispecific antibody TNB-383B, which AbbVie had licensed two years earlier and whose success in the first clinical phase swayed the buyer's decision.

Four months later, TeneoOne's parent company TeneoBio was acquired by Amgen for USD 900 million, thereby expanding its portfolio of bi- and multispecific molecules.

Availability of new non-dilutive funding options

In view of the early R&D financing model adopted and successfully applied by the Company, which consists in co-financing the costs of such research to a significant extent using non-dilutive capital in the form of grants, the Company identifies and monitors on an ongoing basis the availability of the aforementioned forms of financing for its R&D activities.

The research referred to above, due to its pioneering nature, carries a significant investment risk, but at the same time allows the Company to test new ideas and identify projects with the greatest commercialisation potential. By taking advantage of available forms of grant funding, the shaping of the Company's project portfolio can take place with minimal impact on both the shareholder structure and with minimal investment risk for all the Company's shareholders.

The past year 2021 marked the beginning of a new 7-year EU R&D financing perspective called Horizon Europe 2021. This programme will support the emergence of innovation across the EU with a total budget of EUR 95.5 billion.

One of the sub-programmes of particular interest to the Company is “Mission Cancer”, aimed at co-financing oncology projects, with a budget of EUR 378.2 million for the next two years.

There are also plans to launch the national programme "European Funds for Modern Economy 2021-2027" (Fundusze Europejskie dla Nowoczesnej Gospodarki, FENG), which is a continuation of the Intelligent Development 2014-2020 programme, which has been used by the Company to co-finance its R&D activities. The projected budget for this programme is EUR 7.9 billion.

3. Information on the adopted development strategy of Pure Biologics S.A.

The basis of the Issuer's development strategy is the implementation of innovative research and development projects in the field of immuno-oncology drugs, the results of which will be commercialised in the form of licences and property rights or cooperation during clinical development.

The development of biological molecules concerns drugs with high market potential in the treatment of cancer and autoimmune neurological diseases, in particular those leading to pathological changes within the nervous system.

Basic elements of the development strategy

The *implementation of own R&D projects* in the area of innovative biological drugs and medical devices with therapeutic and diagnostic potential is the basis of the Company's development strategy in the coming years. The core research programmes concern first-in-class therapies in the immuno-oncology and neurology segments. Research to generate particles with therapeutic potential will be conducted based on proprietary active particle selection platforms. Commercialisation of R&D Projects will consist in their introduction into Phase I clinical trials, followed by licensing of drug candidates for further clinical development and global market launch by large pharmaceutical companies.

The *development of contract research* conducted 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. As part of contract research, the Company plans to conduct joint projects with potential Partners for the commercialisation of the implemented R&D projects or their development in new extended applications, drawing on the Company's results, scientific knowledge and experience gained in the course of its R&D work.

Sources of funding in the Company's development strategy are its own resources and subsidies from EU and national funds. Since the beginning of its operations, the Company has obtained a total of PLN 118,094 thousand in grants for the implementation of research and development projects. The Company raises its own contribution to R&D projects from share issues conducted successively as research work progresses and milestones of individual project stages are reached. Between 2018 and 2020, the Company carried out three share issues, thus raising own contribution to R&D projects of PLN 66,968 thousand.

Strategic financial objectives adopted in accordance with the schedule of R&D projects under implementation based on the provisions of the agreements concluded with the National Centre for Research and Development (NCBR, Polish: Narodowe Centrum Badań i Rozwoju), the Company plans to obtain the first revenues from the commercialisation of individual projects after 2023. In view of the above, the Company should achieve the first revenues from upfront payments not earlier than in 2024, while in subsequent years there should be 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 assumes the priority of using funds from commercial activities carried out in the contract research segment and equity capital raised through the issue of shares on the capital market in Poland to cover the Company's own share in innovative R&D projects. Taking into account the number and size of the R&D projects conducted and the related high level of demand for own contribution supplementing the received funding, the Company does not expect to pay 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 its continuing need for additional capital, the Management Board of the Company cannot determine the year in which it will first recommend the payment of dividends.

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

Key measures to implement the Issuer's strategy

Proprietary platforms for the generation of active bio-molecules.

Thanks to the independent development of technological platforms for the selection of antibodies (PureSelect2) and aptamers (PureApta), the Company has two technologies that enable the rapid and efficient generation of new active bio-molecules, 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 bio-molecules are being investigated for possible development into new drugs and biosensors. Thanks to the above, the Company is able to operate in three potential market segments where it can commercialise the results of independently conducted research projects.

Focus on innovative therapies and first-in-class drugs.

The Company's investigations are focused on drugs and therapies that provide remedies for cancer and rare diseases, groups of diseases with high unmet medical needs. The Company's strategy includes the development of innovative and first-in-class medicines, including in the area of immuno-oncology. The current project portfolio includes five major independent R&D projects, three of which involve the development of antibody-based immuno-oncology drug candidates and the other two involve the development of aptamer-based biomolecular filters for the treatment of selected rare diseases. Further development of potential drugs will also be carried out in other oncology indications, significantly broadening their use, including through possible combination with other available therapies or drugs (combination therapy).

Key share of public funding for research projects.

From the beginning of its operations to the date of the report, the Company obtained PLN 118,094 thousand from public funds, both domestic and European, for the development of research and development projects. The vast majority of this funding, over 95%, was allocated between 2017 and 2020.

Highly competent in-house 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 a hundred specialists, approximately 40% of whom hold doctoral degrees. Qualified staff, many years of experience and a focus on effective cooperation allow both the achievement

of milestones in our own projects and - at the same time - the realisation of cooperation with other entities with a high commercial potential.

Ability to reserve rights to all generated molecules.

Due to the specificity of the technology for generating active bio-molecules (antibodies and aptamers), each newly generated molecule has a different amino acid or nucleotide sequence in the molecular target binding region. At the same time, each such sequence is recognised in patent law as an NCE (new chemical entity), which allows it to receive patent protection. The Issuer's aim is to take advantage of this specificity and obtain patent protection for all molecules, both in terms of sequence and potential use. This will involve molecules that demonstrate efficacy in in vitro disease models and early stage in vivo testing. 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 scientific centres.

As part of its projects, the Company is actively cooperating or cooperated in 2021 with research centres and universities, located both in Poland and abroad. These include Oslo University Hospital - Institute for Cancer Research (Norway), Colorado State University in Boulder (USA), Warsaw Medical University, Institute of Immunology and Experimental Therapy of the Polish Academy of Sciences in Wrocław, University of Wrocław, Wrocław University of Environmental Sciences, Łukasiewicz Research Network - Institute of Organic Industry in Pszczyna and Łukasiewicz Research Network - PORT Polish Center for Technology Development.

Activities undertaken as part of the implementation of the development strategy (in the reporting period)

Measures concerning the progress of the Company's R&D projects in the reporting period are presented in Part IV point 5.

Prospects for development of the Issuer's activities in the next financial year

In 2022, the Company will continue to pursue its strategic development programmes for immuno-oncology drugs and extracorporeal therapies for rare neurological diseases. Preclinical studies are planned for all projects in the main portfolio comprising three biological drug projects and two biomolecular filter therapeutic projects. These studies should provide proof-of-concept results in animal models to justify referring specific projects to clinical trials and their subsequent commercialisation.

In addition, in 2022, the Company intends to complete the conceptualisation of several new drug development programmes and aptamer technologies and plans to initiate selected projects, both those in the early stages of drug development and, taking advantage of market opportunities, those that will allow clinical trials to begin as early as late 2022. The expansion of the current portfolio of assets under development will allow Pure Biologics to effectively exploit its scientific, infrastructural and operational potential and potentially increase the volume of partnership deals with pharmaceutical companies in the future.

4. Description of operations of Pure Biologics S.A.

Subject matter 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).

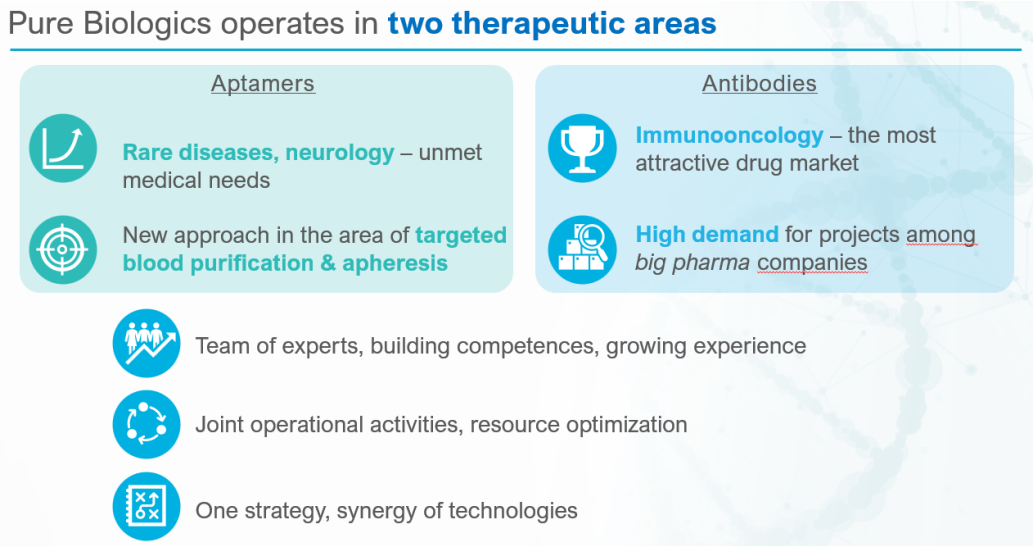
Fig. 3: Scope of activity of the Company.

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

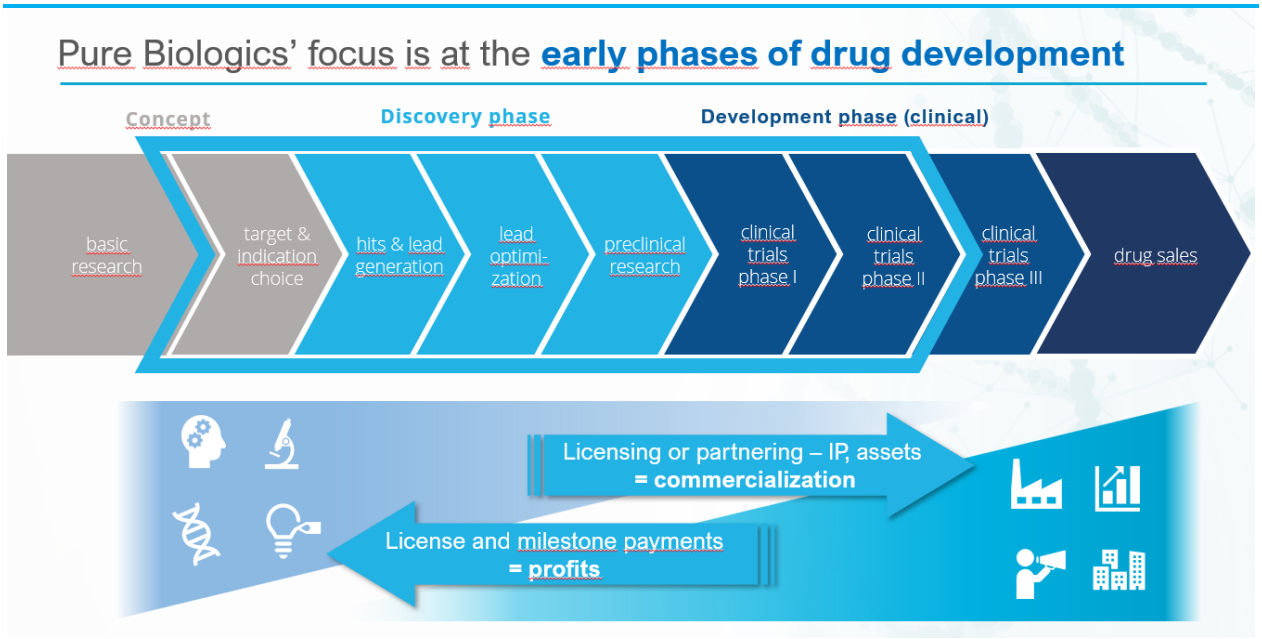
The company operates two proprietary therapeutic research and development programmes. The first programme, called PureBody, targets the development of 3 innovative first-in-class biological drugs based on antibodies acting in the field of immuno-oncology. Projects under this programme address diseases such as colorectal cancer (CRC), non-small-cell lung carcinoma (NSCLC) and triple negative breast cancer (TNBC).

The second programme under way, called AptaMed, includes 2 projects for the development of new therapeutic medical devices (biomolecular filters) based on active molecules from the aptamer group. The projects are conducted in the area of rare severe neurological diseases such as Neuromyelitis Optica (NMO) and Myasthenia Gravis.

In the area of oncological diseases, the Company is also conducting a consortium research project related to a targeted therapy strategy for the treatment of melanoma. It is a proof-of-concept (PoC) project and involves a drug candidate based on an aptamer carrier in conjugate (combination) with an existing cytotoxic drug.

The Company's expertise allows it to carry out all drug and therapeutic medical device development projects from the molecular target selection phase to the in vitro testing phase inclusive - entirely based on its own scientific and technological resources. This allows for complete independence from licensing drug candidates from other entities, universities or third-party service providers and gives us control and complete confidentiality of the research conducted at its initial, most sensitive stage. Providing funds, including NCBR funding, to conduct research in the projects listed above up to the first phase of clinical trials (pre-clinical and clinical trials commissioned to specialised CROs) will ensure that the assets developed will be commercialised at the time when their expected value is the greatest.

Fig. 5: Phases of drug discovery and Pure Biologics S.A.'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.

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 an area of approximately 1,000 m2, located in the Wrocław Technology Park, in which it employs 80 researchers, 40% of whom hold a PhD degree in biological or related sciences (a total of 86 specialists providing direct services to the scientific and research segment).

The Company engages staff on the basis of employment contracts as well as commissions activities on the basis of civil law contracts. As at 31 December 2021, 101 persons were employed under a contract of employment. In addition, as at 31 December 2021, 8 persons cooperated with the Company under other civil law contracts (mandate contracts, contracts for specific work and cooperation contracts with persons conducting business activities).

5. Information on major R&D achievements

Introduction

2021 was a productive year for Pure Biologics' R&D initiatives, with significant progress made in all six major projects.

The Company's immuno-oncology portfolio consists of three antibody-based projects, each aimed at overcoming immuno-suppression – the main obstacle to the removal of cancerous tumours by the human immune system.

The PB001 project aims to reverse the depletion of cytotoxic immune cells by blocking the TIM-3 receptor, while making cancer cells better detectable by the immune system through a yet undisclosed antigen on their surface. Key achievements of the PB001 project during the year included the first preclinical tests on in vivo tumour models to test the safety of the novel therapeutic concept. The administered compound was safe at doses up to 250 mg/kg, which is a multiple of the expected therapeutic dose for the antibody, and thus the therapeutic concept (mechanism of action) appears safe.

Project PB003 aims to simultaneously eliminate both tumour cells and immuno-suppressive regulatory T cells by targeting the proteins integrin vβ8 or GARP. A series of PB003 model compounds were developed and successfully tested in cellular assays reflecting the intended therapeutic mode of action of PB003. In parallel, a series of custom antibodies were generated that will be used as building blocks to derive a preclinical lead candidate for PB003.

In PB004, the Company intends to develop a bispecific therapeutic compound that engages natural killers (Bispecific Killer Engager - BiKE) that will enable NK cells to kill cancer cells more efficiently. Key achievements of the project include obtaining a suitable format for a long-acting BiKE recognizing CD16 and ROR-1, selected from 42 structural formats originally considered. Long-acting BiKE has also been shown to effectively trigger the killing of cancer cells showing elevated levels of ROR-1 marker by CD16-positive NK cells isolated from human blood. It is expected that in 2022 preclinical proof-of-concept testing on various animal models will be conducted for all three immuno-oncology projects, and leading preclinical candidates will be selected for further development.

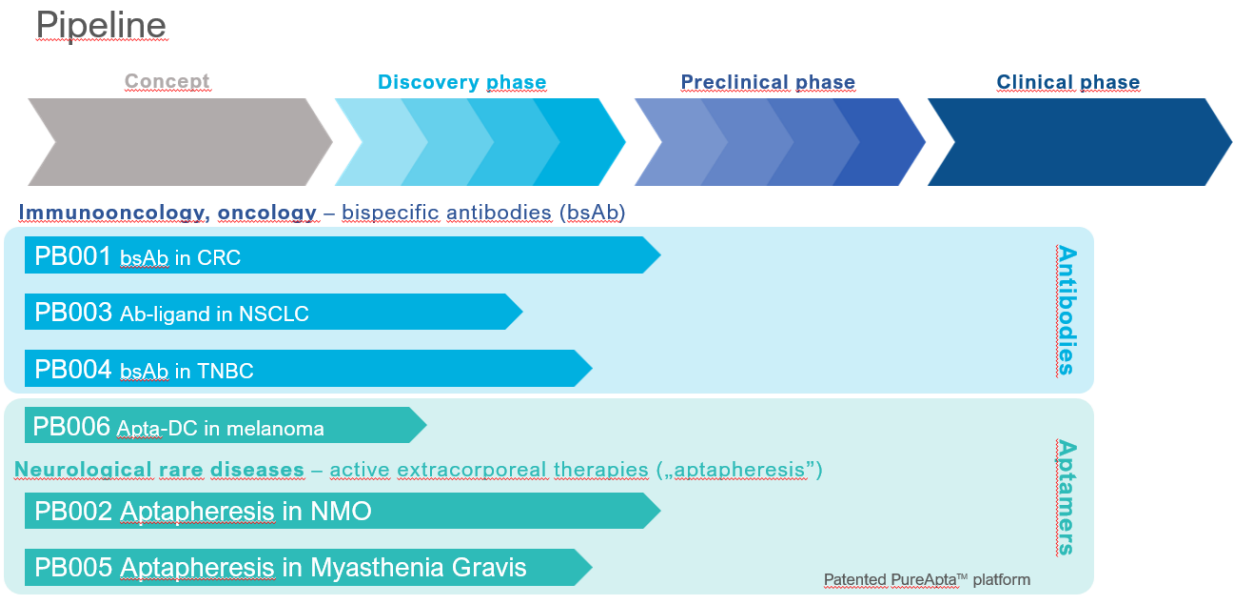
In PB006, a targeted chemotherapy is being developed for the treatment of melanoma using an aptamer targeting IL-13R2 receptor as a carrier for a cytotoxic drug (which directly kills cancer cells). Progress includes the ongoing selection of a IL-13R2 binding aptamer, the positive experimental validation of the molecular target of the project, and the development of functional assays needed to select the lead molecule.

The portfolio of targeted plasmapheresis projects based on Pure Biologics' solutions consists of two projects that aim to significantly improve the treatment of rare autoimmune neurological diseases in patients with Neuromyelitis Optica (NMO) and Myasthenia Gravis (MG).

Key achievements of PB002 include the development of lead aptamers with enhanced stability in plasma that can selectively remove autoimmune autoantibodies from human plasma, and the preparation of an animal model to test targeted removal of auquaporin autoantibodies from circulating blood.

The PB005 project was able to select lead aptamer candidates that were successfully tested for targeted removal of complement 5 (C5) protein from human plasma ex vivo. Both the PB002 and PB005 projects are expected to achieve preclinical proof-of-concept in 2022.

Fig. 6: Progress of the projects.



Antibody-based immuno-oncology drug development projects

Fig. 7: Antibody-based projects.

project name	therapeutic area	indication	active molecule
PB001 MultiBody	immunooncology	colorectal cancer (CRC)	bispecific antibody
PB003 PureActivator	immunooncology	non-small-cell lung carcinoma (NSCLC)	bimodal fusion protein (antibody-immunoligand)
PB004 PureBIKE	immunooncology	triple negative breast cancer (TNBC)	bispecific antibody

Drug development project PB001 (MultiBody)

Purpose 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-1xTAA. 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 more effectively eliminate cancer cells. 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 32,037,000, and the value of the grant is PLN 23,998,000. The Company's own contribution in the amount of PLN 8,002 is covered by the Company from the capital obtained as part of the issued shares.

Implementation and results of the project in the reporting period

In 2021, the PB001 project towards the development of a lead drug candidate for clinical development. The focus was on two areas: 1) preclinical testing of the bsAb TIM3xTAA model antibody in an in vivo proof-of-concept experiment, and 2) obtaining molecular target binding sequences to develop a proprietary bsAb TIM3xTAA molecule for preclinical and clinical development.

The first step in the proof-of-concept study was to investigate the safety of the bsAb TIM3xTAA model molecule in BRGSF-HIS mice with immunodeficiency and reconstituted human immune system. The study, performed by Timeline Bioresearch Ab (Lund, Sweden) was designed to determine the Maximum Tolerated

Dose (MTD) of the bsAb TIM3xTAA molecule after single dose intraperitoneal administration using a dose escalation approach. No clinical abnormalities were observed in mice after any of the doses (5, 10, 20, 40, 80, 160 and 250 mg/kg body weight). Necropsy and histopathological analysis (performed by University of Environmental Sciences in Wrocław) after the last dose also did not reveal any abnormalities. The maximum single dose tolerated by mice was 250 mg/kg body weight, which corresponded to the highest dose tested.

The second study used a CaCo-2 tumour model in BRSGF-HIS mice to assess the safety of bsAb TIM3xTAA under conditions where the molecule can bind both TIM-3 on immune cells and antigen on CaCo-2 tumour cells. The dose escalation schedule was again used to determine the maximum tolerated dose; the product was administered intraperitoneally, three times a week for a period of 31 days. No clinical abnormalities were observed in mice during the study, confirming that the maximum tolerated dose of the model bsAb TIM3xTAA molecule is 250 mg/kg body weight.

PD-1 (programmed death receptor 1) and TIM-3 are checkpoint inhibitors that inhibit immune surveillance by cytotoxic cells over tumour cells. To verify the validity of the combination of bsAb TIM3xTAA and anti-PD-1 monoclonal antibody as a therapy, in the same study, effects of treatment with bsAb TIM3xTAA (250 mg/kg) was compared to treatment with the marketed anti-cancer drug Keytruda (pembrolizumab; 10 mg/kg) which targets PD-1, or a combination of bsAb TIM3xTAA (250 mg/kg) and Keytruda (10 mg/kg). The treatment groups were compared to a vehicle control group from a previous pilot study. Although the primary endpoint of the study was the safety of the bsAb TIM3xTAA molecule, signs of anti-tumour efficacy were investigated as well, by observing changes in the tumour volume. No statistically significant effects of treatment could be found on tumour growth in any of the treatment groups, and no differences were observed between the groups.

During the study, blood was taken from the animals and both cytokine (human) concentrations and the number of selected populations of immune cells were analysed. Subsequently, selected animal tissues were collected post mortem and subjected to histopathological analysis, as in the maximum tolerated dose study, and no signs of toxicity of the test molecule were detected in major organs.

To screen the biological activity of bsAb TIM3xTAA molecules based on proprietary binding sequences, assays have been developed that use peripheral blood cytotoxic T cells and NK cells for bsAb TIM3xTAA-induced killing of tumour-associated antigen (TAA) expressing cancer cells. To this end, Pure Biologics has established a specialised laboratory infrastructure and met the administrative requirements necessary to work with human blood. Biological material is obtained from healthy blood donors through the Regional Centre for Blood Donation and Haemotherapy in Wrocław.

Project work planned for 2022

In 2022, the PB001 project is scheduled to produce a bsAb TIM3xTAA drug candidate meeting the necessary criteria for further preclinical and clinical development. Preclinical testing of the proprietary molecule in vitro and in vivo is expected to begin in the second half of 2022.

Drug development project PB003 (PureActivator)

Purpose of the project

The PB003 (PureActivator) project is developing a dual-action anti-cancer therapy that 1) eliminates the number of immuno-suppressive regulatory T cells (Treg) in the tumour microenvironment and 2) recruits cytotoxic immune-cells to directly kill tumour cells. The accumulation of regulatory T (Treg) cells in the tumour microenvironment is associated with an unfavourable prognosis in various types of solid tumours. Integrin αVβ8 and GARP complex are highly expressed on various tumour cells, as well as on activated regulatory T cells (Tregs) where they contribute to immuno-suppression in the tumour environment. Therapeutic antibodies typically use the CD16 receptor on the surface of NK cells to to trigger tumour-

killing. However, CD16-positive NK cells are scarcely found in solid tumours, contributing to the low efficacy of molecules targeting the CD16 receptor. The PB003 project aims to develop a bifunctional therapeutic antibody (BFP) that specifically recognises αVβ8 or GARP. In addition, the molecule will bind to ULBP2, a natural ligand for the NKG2D receptor, which activates NK cells and is expressed on virtually all cytotoxic NK and T cells present in the tumour environment. The molecule being developed in the PB003 project has the potential to be a breakthrough therapy for the treatment of solid tumours and can be used in most cancer indications. Pure Biologics plans to take the development of the drug candidate through the first phases of clinical trials, after which it will commercialise the project by making the molecule available for licensing.

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 39,905,000, and the value of the grant is PLN 30,969,000. The Company's own contribution amounts to PLN 8,969 thousand. The company intends to cover this from the capital raised through the conducted share issues.

Implementation and results of the project in the reporting period

The PB003 project focused in 2021 on 1) generating antibodies that target αVβ8 or GARP and 2) selecting the optimal drug-scaffold for the creation of a bifunctional antibody fused with immunoligand ULBP2.

Using phage display technology, selection campaigns were performed on molecular targets: GARP-LAP-TGF-β1 complex and αVβ8 integrin. The selections yielded 11 anti-αVβ8 and 60 anti-GARP antibodies, which are currently being analysed in biophysics- and cell-based binding assays. In parallel, produced antibodies will be verified in functional assays by analysing the blocking of TGF-β1 release. Further selections for αVβ8 and GARP molecular targets are being conducted using phage-display libraries licensed from Twist Bioscience (San Francisco, USA).

To design the optimal drug-scaffold for the creation of a bifunctional anti-αVβ8 or anti-GARP antibody combined with the ULBP2 immuno-ligand, a series of model bifunctional antibodies were produced based on available sequences for anti-αVβ8 and anti-GARP antibodies. These models of bifunctional antibodies have been characterized in a series of binding assays and functional assays.

Bifunctional model antibodies whose Fab fragments were fused to the ULBP2 immunoligand were shown to efficiently bound both αVβ8, the GARP complex and NKG2D. In flow-cytometry, these bimodal fusion protein variants were able to bind specifically to the surface of cells expressing the aforementioned molecular targets. It has been shown in cytotoxicity assays of NK cells isolated from donor blood that bifunctional model anti-receptor antibodies can stimulate the killing of αVβ8-overexpressing Raji cells, compared to native cells. This test will be used as a functional test for the selection of a bifunctional lead candidate molecule to be developed under the PB003 project.

Currently, analyses are being performed to confirm binding of bifunctional model antibodies with the FcRn receptor. The results obtained will confirm whether the bifunctional model antibodies have a relatively long half-life in blood, similar to antibodies and albumin in blood. The blood half-life is an important parameter for therapeutic drugs, determining the dosage regimen for patients. Hence, the determination of this parameter is crucial for the molecule being developed under PB003.

Project work planned for 2022

In mid-2022, pharmacokinetic studies will be conducted in mice expressing the human FcRn receptor to determine the half-life of bifunctional anti-αVβ8 and anti-GARP antibodies and selected control

compounds. In the second half of 2022, the PB003 project plans to conduct preclinical proof-of-concept studies on humanised mouse models using in vivo human tumour models. In 2022, the PB003 project will focus on the development of a bifunctional lead compound for preclinical and clinical development.

Drug development project PB004 (PureBIKE)

Purpose of the project

The objective of the PB004 (PureBIKE) project is to develop an anti-cancer drug based on an anti-ROR1 antibody with significantly improved therapeutic properties compared to competing antibodies currently in early-stage clinical development. PB004 will be a long-acting bispecific killer engager (BiKE) molecule designed to inhibit tumour cell proliferation and migration, as well as induce tumour cell death through natural killer (NK) cell activation and initiation of antibody-dependant cellular cytotoxicity (ADCC) process. The drug under development may have high potential in treating patients with ROR1-expressing tumours, including triple negative breast cancer (TNBC), a particularly aggressive breast cancer subtype, but also ovarian, lung, gastric, prostate cancer and chronic lymphocytic leukaemia. Pure Biologics plans to take the drug to phase one clinical trials when the project will be made available for outlicensing. The PB004 project constitutes an important position in the pipeline of the Company's highly innovative drug-development projects in the segment of immuno-oncology therapies.

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, and the value of the grant is PLN 29,869. 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 10,548 thousand from the capital raised in the conducted share issues.

Implementation and results of the project in the reporting period

The PB004 project focused in 2021 on 1) selecting the optimal drug-scaffold for the long-acting BiKE molecule that recognises CD16axROR-1, and 2) discovering proprietary ROR-1 and CD16a binding sequences. Using phage presentation technology, a total of eight selection campaigns were conducted on ROR-1, CD16a and ROR-2 molecular targets. As a result, 13 anti-ROR-1 and seven anti-ROR-2 antibodies were produced, which are currently being analysed in molecular and cell-based binding assays. In addition, 25 anti-CD16a antibodies were obtained whose analysis is planned in the near future. Further selections for ROR-1 and CD16a using libraries licensed from Twist Bioscience (San Francisco, USA) are currently underway.

During the reporting period, 42 drug-scaffolds were analysed for the development of the long-acting CD16xROR-1 therapeutic molecule. The aim was to create a stable format 1) with an enhanced ability to trigger Antibody-Dependent Cellular Cytotoxicity (ADCC) compared to conventional antibodies, 2) that has a blood half-life long enough to ensure that the drug is administered to patients no more than once a week, and 3) that can be stably produced in mammalian cells. The therapeutic format referred to as long-acting BiKE is based on human serum albumin (HSA), which forms a scaffold for two single-chain fragment variables (scFv) attached to the N- and C-terminus of albumin that bind CD16a and ROR-1.

The expected half-life of PB004 in human plasma is as much as 2 to 3 weeks, as determined by the half-life of human albumin, which is due to its ability to bind the FcRn (neonatal Fc) receptor in blood vessels, ensuring protein recycling. Eight variants of albumin-based molecules were generated as model molecules using available scFv fragments of antibodies against CD16a and ROR-1. Binding to the FcRn receptor was

confirmed for all model molecules in biophysical assays. Pharmacokinetic studies to determine the half-life of the test model molecules will be conducted in the first half of 2022 in mice with the human FcRn and without albumin expression.

The biological activity of the model long-acting BiKE molecules was tested by examining their ability to induce an immune response of CD16a-expressing NK cells against ROR-1 over-expressing tumour cells. Peripheral blood-derived NK cells were shown to effectively kill ROR-1 over-expressing tumour cells in a manner dependent on the concentration of the CD16xROR-1 model molecule. Currently, work is also underway to demonstrate the inhibitory effects of CD16xROR-1 on tumour cell division and the inhibition of cell migration in vitro (by blocking the ROR-1 involved in these processes). The company plans to conduct a proof-of-concept study on a mouse model of cancer in the second half of 2022.

Project work planned for 2022

In addition to the afore mentioned studies, the aim of PB004 in 2022 is to generate a proprietary CD16axROR-1 long-acting BiKE molecule for preclinical and clinical development, validation of which is planned for the second half of 2022.

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	conjugate aptamer drug

Therapeutic project PB002 (AptaPheresis)

Purpose 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, and the value of the grant is PLN 10,542. 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 reporting period

In 2021, 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 prototype for a model aquaporin-4 autoantibody (rAb-X) for use in ex vivo studies with human and animal plasma and in vivo animal studies.

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) and insufficient for an in vivo proof-of-concept study. Work is currently underway to improve the stability of the aptamer in animal serum.

Three series of aptamer variants were designed with additional modifications introduced at specific positions of the sequence, after which the effect of modifications at the respective positions on the stability of the aptamer in animal serum was tested. So far, stability has been improved from 19 to 60% after 3 hours of incubation. Further work is currently underway to achieve 80% stability that allows for an effective apheresis procedure, the estimated time of which is 2-3 hours. Due to the need to conduct additional work on increasing the stability of the molecule in animal serum, Pure Biologics applied to the NCBR to extend the prototyping stage of the device (stage 4 according to the co-financing agreement) until the end of September 2022, for which it received the appropriate approval.

During the reporting period, tests to capture rAb-X molecular target from buffer under flow conditions were carried out and showed a protein binding efficiency of 85-95%, depending on the experimental conditions used. Tests were also performed to capture anti-aquaporin-4 antibody from human plasma under static conditions, demonstrating target binding at 95% level. In the next stage, ex vivo tests will be carried out using a prototype adsorber.

At the same time, work is underway to determine the optimal parameters of the adsorber, such as volume, dimensions, amount of bed and the correct density of immobilised aptamer in relation to the plasma flow velocity, and thus the optimal contact time of the molecular target with the active bed.

In preparation for establishing preclinical proof-of-concept in vivo, a preliminary study was conducted in rabbits to develop an experimental model for the apheresis procedure. The study consisted of intravenous administration of a model recombinant anti-AQP4 antibody (equivalent to the pathogenic factor in NMO) in a dose escalation schedule, after which the pharmacokinetics of the antibody in blood (changes in concentration of the administered antibody over time) were studied to determine the experimental timeframe for removal of the antibody from the blood in an apheresis procedure. The research was conducted by the Institute of Organic Industry in Pszczyna (Łukasiewicz Research Network). The obtained results will allow to plan an appropriate in vivo test, which will be used to assess the adsorber effectiveness.

At the Aptamers 2021 scientific conference, held on 14-15 April 2021, Pure Biologics presented the key results of the PB002 project: the confirmed aptamer stability in human plasma, the possibility to sterilise the aptamer bed and the efficient binding of the molecular target in static and dynamic systems. A presentation from the conference is available on the Company's website.

Project work planned for 2022

In 2022, it is planned to further optimize the adsorber prototype and produce 1) a test batch for ex vivo experiments with human plasma and 2) a batch for in vivo studies on an animal model. The prototyping process will include packing the bed with an aptamer into the column, sterilisation tests, testing for microbial contamination of the final product, endotoxin level, as well as testing the leakage of the bed from the column.

For the purposes of prototyping the adsorber, the necessary amount of aptamer was produced, and it was immobilized on the bed. The prepared material will be sent to the subcontractor. The prototype will be iteratively optimised based on ex vivo test results.

At the same time, work will continue on increasing the nucleolytic stability of the aptamer in animal serum; subsequent versions of the adsorber prototype will be constructed based on the improved molecules until the desired column parameters are achieved. The in vivo preclinical studies are scheduled to begin in the third quarter of 2022.

Therapeutic project PB005 (AptaMG)

Purpose 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 inpatient 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.

Pure Biologics under PB005 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, and the value of the grant is PLN 10,775. The Company intends to cover its own contribution of PLN 3,958 thousand 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 reporting period

As part of the work on the PB005 project, in 2021 the optimization and further characterization of aptamers selected in the previous stage of the project were carried out. A total of about 130 aptamer variants were tested, of which the three most promising were selected, showing both strong affinity to the molecular target (C5 protein) and nucleolytic stability in human serum. However, the aptamers showed insufficient stability in animal serum to be used in in vivo tests. Therefore, further work is being carried out to increase the nucleolytic stability of the molecules, after which a leader molecule will be selected that will be used to build an adsorber prototype for preclinical research.

As a result of the conducted experimental work, a bed was selected that will constitute a scaffolding for active molecules of the adsorber - aptamers. The bed is characterized by high capacity, stable aptamer binding, high chemical and thermal efficiency, as well as biocompatibility. The level of non-specific binding of plasma components with the immobilized aptamer by the bed was negligible (< 5%), which was determined based on diagnostic tests performed by a certified laboratory. Simultaneously, the aptamers were successfully conjugated to the bed using a covalent bond. A number of functional tests have been performed which showed that aptamers immobilized on the bed effectively trap the molecular target from a buffer (~90%) as well as from human plasma (~50%). Further work is underway to increase the efficiency of aptamer immobilization on the bed, as well as to determine the optimal density of aptamer molecules to increase the efficiency of C5 protein binding from plasma.

In addition, during the reporting period, we successfully completed the isolation of native C5 protein from human plasma, which will be used in further product development. It was also confirmed that the selected

aptamers have an affinity for the recombinant rabbit C5 protein, which suggests that the aptamers could probably be used in planned in vivo studies in a rabbit model.

Work was also conducted on the improvement of the existing biochemical assays (ELISA) and development of new, complementary tools (haemolytic assay) for the detection of a molecular target in plasma, which will be used to assess the effectiveness of the developed adsorber.

Project work planned for 2022

As part of further design work, functional tests of C5 protein capture from plasma under flow column conditions are planned for 2022. The optimum column parameters will be determined experimentally. Pure Biologics will also continue to work on increasing the stability of aptamers in animal serum. Once a lead molecule has been identified, aptamer synthesis will be commissioned to produce an adsorber prototype to be used in ex vivo and animal studies. The start of preclinical studies is scheduled for the third quarter of 2022.

Proof-of-concept project for PB006 (AptaMLN)

Purpose 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-13Rα2, 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-13Rα2 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. To increase the chance of achieving therapeutic efficacy of PB006, a companion diagnostic test will be developed in parallel to identify patients whose tumour cells express IL-13Rα2. Cancer types eligible for PB006, based on reported expression of IL-13Rα2, includes melanoma, glioma, and colon cancer. PB006 therefore shows great potential, both therapeutically and commercially.

Financing

The PB006 project is a collaboration between Pure Biologics and the Polish Centre for Technology Development (PORT, Wroclaw, Poland) and is co-funded by the National Centre for Research and Development (NCBR). According to the co-financing agreement, 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. The Issuer intends to cover its own contribution to the project in the amount of PLN 282 thousand from the capital raised in the conducted share issues. The project, which has been divided into four phases, began in January 2020. Pure Biologics is responsible for the first two stages, while PORT is responsible for the last two stages. The planned completion date for stage 2 is 28/02/2022, while the completion time for the entire project is November 2022.

Implementation and results of the project in the reporting period

In 2021, the two main goals of the project were 1) to obtain the lead molecule, an IL-13Rα2-binding aptamer, which will serve as a vehicle for drug conjugation, and 2) to demonstrate that the IL-13Rα2 protein can serve as a receptor for targeted PB006 therapy.

To obtain an aptamer with high affinity to IL-13Rα2, selection campaigns were conducted in two ways: 1) SELEX against recombinant IL-13Rα2 extracellular domain, and (2) SELEX/cell-SELEX hybrid campaign against recombinant protein and IL-13Rα2 presented on melanoma cells. To this end, it was important to implement the new cell-SELEX (selection using living cells) technique at Pure Biologics. The selection campaigns yielded 44 aptamer sequences, of which 31 potential candidates were tested for affinity to IL-13Rα2 in biophysical as well as cellular assays using flow cytometry, but none met the binding criteria adopted for the drug under development. In the first months of 2022, as a continuation of the project, the remaining 13 molecules will be evaluated using biochemical, biophysical and newly developed cellular methods.

Two new methods for the determination of IL-13Rα2 aptamer binding specificity and internalization have been developed, which will enable simultaneous assessment of the binding of 20-25 oligonucleotides with the molecular target presented on cells. These methods will enable aptamer screening in a functional assay and will greatly improve the procedure and efficiency of drug candidate selection.

Internalization of IL-13Rα2 upon receptor-binding of a drug-conjugated ligand is critical to achieve the intended PB006 mode-of-action. Using fluorescence-conjugated antibodies against IL-13Rα2 as surrogates for aptamers, it was shown in functional assays, both in assays based on fluorescence microscopy and assays based on flow-cytometry, that IL-13Rα2 rapidly internalizes upon ligand binding in melanoma cells. Thus an important milestone was achieved in the project by showing that IL-13Rα2 is suitable as a drug target for PB006.

Events after the reporting period

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. As such, 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. Pure Biologics will continue to develop PB006 and intends to cover the costs from its own budget, while seeking new funding opportunities.

Project work planned for 2022

In 2022, Pure Biologics plans to intensify its IL-13Rα2 aptamer selection campaign, implementing conditions for a stronger selection pressure in the SELEX procedure, as well as alternative strategies to generate potential IL-13Rα2 aptamer candidates based on next-generation sequencing and bioinformatics analyses. Pending lead-molecule selection, the Company intends to conduct an in vivo proof-of-concept experiment to validate the concept of inducing melanoma cell death by drugs based on anti-IL-13Rα2 aptamers by the end of 2022. In addition, PB006 will launch the development of a molecular test for companion diagnostics of melanoma patients.

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

Execution of the first tranche of the Incentive Programme and conclusion of Lock-up Agreements on the Issuer's shares by the Participants of the Company's Incentive Programme

On 28 January 2021, following the approval by the Supervisory Board, the Company's Incentive Programme Trustee, Mr Filip Jeleń, within Tranche I of the Programme, carried out 81 transactions, transferring ownership rights to 100,214 Company shares to the Programme Participants (the Issuer's employees). A prerequisite for the 81 Incentive Programme Participants to enter into the Sale Agreements was the written establishment of a temporary restriction on the sale of the acquired shares until 31 December 2021 (Lock Up Agreement).

Invention patent granted to the Company by the European Patent Office

On 8 February 2021, the Issuer's Management Board received official information that the European Patent Office (EPO) has completed the substantive examination stage of the invention entitled "The method of synthesis and purification of a nucleoside and/or a nucleotide, a modified nucleoside and/or nucleotide, a DNA molecule and an oligonucleotide library comprising said modified nucleoside and/or nucleotide, and the use of said oligonucleotide library" and issued a decision to grant a European patent. The European patent will be granted subject to the payment of a patent publication fee to the EPO and the filing of a translation of the patent claims into the other two official languages in addition to English. Filed under EP16846944.3, the patent will be issued once the formal procedures are completed at the EPO, which could take several months. The Company's next step will be to start a validation procedure in selected European countries.

The granted patent relates to the basis of operation of the PureApta technology platform, which uses modified aptamers. In particular, it covers chemical modifications and methods for their incorporation into aptamers, as well as the construction of libraries of modified sequences and their use for in vitro selection of aptamer molecules with therapeutic and diagnostic potential.

The extension of the existing invention protection beyond the United States to European countries will allow the Company to improve the competitiveness of the services and solutions offered related to the PureApta platform, thus ensuring exclusive commercial use of this technology also in the European market.

Conclusion of contract for pre-clinical tests under project PB002

On 18 March 2021, the Company signed an agreement with a research institute of the Łukasiewicz Research Network - the Institute of Organic Industry based in Warsaw, Pszczyna Branch (the Institute), for the performance of research services including preclinical experiments in an animal model for the assessment of pharmacokinetic parameters of the anti-AQP4 antibody. The Institute was selected as a subcontractor in a public tender concluded on 17 March 2021.

The aforementioned work was carried out within the framework of the PB002 (AptaPheresis) project, which concerns the development of a biomolecular filter containing aptamers for the treatment of patients suffering from Neuromyelitis Optica (NMO), a rare neurological autoimmune disease.

The contracted preclinical study was designed to obtain data on the stability profile of a model human recombinant anti-AQP4 antibody (a counterpart to the disease agent in NMO) in the blood of rabbits after single administration in a dose escalation schedule. At the same time, the possible acute toxicity of the test compound that could interfere with the apheresis procedure in a future study was monitored.

The results obtained in the described experiment are essential for the proper planning of the next stage of preclinical studies, in which the Company intends to evaluate the efficacy of removal of a specific agent by a biomolecular filter with aptamer.

Agreement with Twist Bioscience Corporation

On 15 April 2021, the Company started cooperation with Twist Bioscience Corporation (Twist) in the area of antibody libraries. The agreement involves Twist granting the Company access to selected synthetic antibody libraries based on human sequences and optimised using state-of-the-art solutions, including artificial intelligence and big data. Selected libraries in the portfolio are designed to increase the chances of successful selection against specific groups of molecular targets or to allow easier creation of bispecific antibodies. The companies will work together to discover, validate and optimise new antibodies against molecular targets attractive for immuno-oncology therapy. The Company expects that Twist's unique technological approach and capabilities to generate diverse synthetic libraries, combined with Pure Biologics' immuno-oncology portfolio and scientific background in therapeutic bispecific and fusion antibodies, has the potential to accelerate and enhance the Company's antibody discovery success.

Appointment of the Company's Chief Scientific Officer (CSO)

On 1 June 2021, Dr Pieter Spee, a medical biologist and manager with many years of experience in international biopharmaceutical companies, was appointed as Chief Scientific Officer of the Company. Dr Pieter Spee brings to Pure Biologics team extensive subject matter knowledge of the biological drug development process and broad competence in the field of immuno-oncology, especially regarding cellular immune mechanisms, along with his experience in managing teams of scientists and scientific research and development processes. Dr Spee's expertise is perfectly aligned with Pure Biologics' research focus area. In his role as Chief Scientific Officer, Dr Pieter Spee will lead a team of more than 70 scientists from Pure Biologics' R&D department and be responsible for all scientific concepts and work within the current and planned project portfolio. Mr Spee will also support the process of establishing international business contacts with partners in the pharmaceutical industry.

Completion of the first panel of pre-clinical studies under the PB001 project

On 27 August 2021, in its current ESPI (Electronic Information Transfer System) report 14/2021, the Company's Management Board announced the completion of the first pilot preclinical study under Project PB001, which concerns the development of a bispecific monoclonal antibody for cancer immunotherapy for patients suffering from colorectal cancer. Details of the results of this panel of studies are provided in section 6 above.

Conclusion of a licence agreement with NOVAPTECH S.A.S. for the use of the PureApta(TM) technology platform

On 26 November 2021, the Management Board of Pure Biologics S.A. announced that it had entered into an agreement with the French company Novaptech SAS. The subject of the agreement is granting a licence for the use of chemically modified nucleotides, covered by Polish patent no. P.413941, US patent no. US10450673 and EU patent no. EP3350195 in aptamer libraries and aptamer sequences (PureApta™ technology platform), created by the Company under a project co-financed from EU funds. The agreement was concluded for a fixed period of one year, starting from the date of its conclusion. Under the agreement, Pure Biologics S.A. has granted a royalty-free, non-exclusive, non-transferable, non-assignable, temporary, revocable licence limited to the territory of the French Republic to use the modified aptamers exclusively for Novaptech SAS' internal research and development purposes. Following the expiry of the agreement, depending on the positive assessment of the cooperation between the parties during its implementation,

the parties will enter into negotiations to determine the principles of future cooperation aimed at commercialisation of the developed solutions.

Novaptech SAS' core business is to provide aptamer-based services to the global market, in collaboration with biotechnology, pharmaceutical and agri-food companies. This opens the Company's access to a broad and well-structured market, significantly increasing the commercialisation potential of the PureApta™ technology platform.

Conclusion of an agreement to guarantee profit sharing from the commercialisation of an aptamer

Subsequent to the balance sheet date, in February 2022, the Company signed an agreement to guarantee profit sharing from the commercialisation of an aptamer being developed under a contract research order (current ESPI report 2/2022). The subject of the order is the development of an aptamer using the PureApta™ platform. The order is subject to a one-off 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 (6%) share of the customer's net profits from the commercialisation of a therapeutic solution using the aptamer under development ("success fee"). The commercialisation can take place by selling or licensing the solution at any stage of its development.

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.

Conclusion of contract for the first pilot pre-clinical study in project PB004

Subsequent to the balance sheet date, in March 2022, the Company signed a contract for research services covering the first pilot pre-clinical study in project PB004. The subcontractor, The Jackson Laboratory based in Bar Harbor [Subcontractor] - a leading US-based animal testing services company, was selected in a public tender concluded on 1 March 2022.

The main objective of the study is to generate data that can help predict the half-life of the PB004 molecule 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 study is expected to commence in early May 2022, and its expected duration is approximately two months.

The concluded agreement is important as the PB004 drug development project passed to the stage of preclinical studies based on a known partner, which builds confidence in the Company and gives perspectives for further implementation of this project, bringing the Company closer to the stage of

potential commercialisation. Entering the preclinical testing stage also eliminates the drug discovery phase risks from previous stages, which helps to price the project on the map of reference deals.

Events, conferences

In the reported period, the Company conducted activities promoting its products, solutions and services, as well as partnering and scouting activities towards potential subcontractors, project partners and licensees. These activities were carried out under the project entitled "Promotion of Pure Biologics' product brands on foreign markets through participation in the biotechnology and pharmaceutical industry programme" ("Go To Brand" competition of the Polish Agency for Enterprise Development). The project ended in July 2021. After its conclusion, the Company continued the activities independently.

The global situation related to the COVID-19 pandemic affected the timing and type of activities carried out (changes mainly involved rescheduling or, in some cases, cancellation of planned events by organisers), including changing the format of all events to virtual. The company took an active part in the following events:

- 3-5 May, 2021 – Biotechgate Digital Partnering;
- 10-17 June, 2021 – BIO Digital (as part of 'Go to Brand');
- 29 June to 1 July, 2021 – BOS (Biotech Outsourcing Strategies 2021) Virtual 2021 (as part of 'Go to Brand');
- 30 August to 3 September, 2021 – Biotechgate Digital Partnering;

At meetings arranged during these events, the Company presented its portfolio of projects, in particular aptamer and antibody drug candidates and therapeutic devices. This resulted in dozens of valuable contacts with potential partners or technology users.

In addition, the Company presented scientific results related to its ongoing projects at three events:

- On 14-15 April, 2021, researchers from the Aptamer Group attended the Aptamers 2021 Virtual conference, where they gave a talk on the solutions of project PB002 and a scientific poster on the results of project PB007 (MARA). This conference brings together leading research groups and companies working in the aptamer field.
- On 13 October, 2021, Dr Tomasz Klaus - Head of the Antibody Research Group, presented at the event “Writing the Future of Drug Discovery and Development” the scientific results of the partnership with Twist Bioscience Corporation. "Writing the Future" is a conference organized periodically by Twist Bioscience.
- 25-29 October, 2021, Filipa Pires from the Biophysics Research Group, participated in a course organised by the European Molecular Biology Organization (EMBO) entitled “Biomolecular interaction analysis 2021: From molecules to cells”. At the event, the delegate presented a scientific poster on measuring molecular interactions between drug candidates and their molecular targets in selected Company projects.

In addition, the Company's research staff participated in scientific and partnering conferences: “Annual World Bispecific Summit” from 29 September to 1 October, 2021 and “Immuno-Oncology Summit” from 4 to 6 October 2021.

The Company also promoted and presented its therapeutic solutions during a self-organised e-conference for investors: “How science becomes business”, held on 14 December, 2021, and in two “#GPWInnovationDay” conferences organised by the Warsaw Stock Exchange in June and October 2021.

7. 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 31/12/2021 and the reporting date

Table 1: Shareholding structure as at 31/12/2021

Shareholder	Number of shares	Number of votes at AGM	Share in capital	Share of votes at AGM
Filip Jeleń	398,603	398,603	17.68 %	17.68 %
Aviva investors Poland TFI S.A.	170,464	170,464	7.56 %	7.56 %
Maciej Mazurek	160,104	160,104	7.10 %	7.10 %
Augebit FIZ*	153,220	153,220	6.80 %	6.80 %
Piotr Jakimowicz	146,576	146,576	6.50 %	6.50 %
Andrzej Trznadel	81,000	81,000	3.59 %	3.59 %
Other	1,144,033	1,144,033	50.76 %	50.76 %
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.

On 18 February 2022, as a result of the sale of 140,786 Company shares, which resulted from the implementation of the second tranche of the Incentive Programme for Pure Biologics S.A. employees, there was a change in Mr Filip Jeleń's total shareholding in the Company. The shareholding decreased from 17.68% to 11.44%, thus falling below the threshold of 15% of the total number of votes at the Company's General Meeting.

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
Filip Jeleń	257,817	257,817	11.44 %	11.44 %
Aviva investors Poland TFI S.A.	170,464	170,464	7.56 %	7.56 %
Maciej Mazurek	160,104	160,104	7.10 %	7.10 %
Augebit FIZ*	153,220	153,220	6.80 %	6.80 %
Piotr Jakimowicz	146,576	146,576	6.50 %	6.50 %
Andrzej Trznadel	81,000	81,000	3.59 %	3.59 %
Other	1,284,819	1,284,819	57.00 %	57.00 %
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.

V. BASIC ECONOMIC AND FINANCIAL FIGURES

1. Commentary on the current and expected financial situation

The Company's financial position at the reporting date is very good. As at 31 December 2021, the cash balance amounted to PLN 6,163 thousand. At the same time, PLN 26,751 thousand was placed in fast-moving investment fund units.

The Company pays its liabilities on an ongoing basis and its cash position allows it to maintain its current liquidity and enables it to finance planned investments in the expansion of its laboratory infrastructure and innovative projects. The Company's management 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. More detailed information is contained in Part IV, points 4 and 5.

Operating costs

The value of operating costs recognises in the result amounting to PLN 28,492 thousand in the current year (PLN 28,315 thousand in 2020, +<1%) represents the aggregate costs incurred by the Company in all areas of business activity, i.e. R&D, contract research, administration and management costs. As can be seen, in 2021 the Company managed to stabilise its cost levels, which demonstrated the achievement of the planned target volume and the organic work that has been carried out in the Company's laboratories over the last two years. The Company estimates that in the coming quarters, as projects enter the capital-intensive pre-clinical research phases, operating costs and in particular the costs of third-party services (subcontractors) may increase.

In the structure of costs in the current year, 72.2% (PLN 20,580 thousand) were costs of R&D projects in the field of research works expensed immediately. Costs of general administration and sales accounted for 27.2% (PLN 7,755 thousand) of operating expenses and the cost of services sold was less than 1%.

In the structure of costs by nature, the largest item, 44.0%, are payroll costs (PLN 12,535 thousand) and this constitutes a change of less than 1 pp compared to 2020 (PLN 12,638 thousand). When aggregated with social security and other employee benefits, this item accounts for 52.4% of operating expenses. Next items in the cost structure are: the consumption of materials and energy (15.0%, PLN 4,281 thousand), outsourced services (13.3%, PLN 3,797 thousand), and depreciation and amortisation (10.2%, PLN 2,920 thousand). In the year covered by this report, the structure of costs by nature did not undergo any major change and in relation to the period it varied from -1.6pp to +1.9pp. The biggest y-o-y decrease was recorded in the item rents and leases (PLN -438.3 thousand), which was caused by the expiry of 12 rental or lease agreements. The highest increase of +29.5% (PLN 542.8 thousand) was recorded in other employee benefits. The largest contributor (+PLN 231 thousand) to this increase was employee training, which was significantly higher in 2021 than in the pandemic year 2020.

Revenues from grants

In 2021, in the revenue from grants item the Company reported PLN 17,788 thousand and this is 10.5% more than in the comparative period. Such a symbolic change reflects the stable and organic work on R&D projects and the fact that work on the same projects continued throughout the period covered by this report.

The largest revenues in the reporting period were generated by projects: PB004 PureBike – which accounts for 34.7% of grant revenue. In the comparative period, this project generated only 18% of grant revenue.

Projects PB003 PureActivator and PB005 AptaMG generated 23.6% and 18.0% of grant revenue respectively. Grant revenue from the PB001 MultiBody project declined significantly during the reporting period, with its share of grant income falling from 20% in 2020 to 7.9% in the year covered by this report. This is a natural trend due to the increasing scope of work of projects that are slightly shifted on the timeline in relation to PB001.

Revenues from grants should increase further in the coming year, as they are directly correlated with the costs of the R&D work carried out, and these will increase as the work progresses and as we enter further, more capital-intensive stages of individual projects.

Project costs

In 2021, the Company recognised PLN 20,580 thousand of project costs in the statement of profit or loss and other comprehensive income and this is 6.6%. lower (- PLN 1,449 thousand) than in the comparative period. The reason for the decrease is the completion of projects PB007 MARA, PB008 MAGBBRIS and PB010 PureSelect, the costs of which were not fully "offset" by the increase in the cost of running the existing portfolio.

Operating profit (loss)

The loss from operating activities in 2021 in the amount of PLN 10,482 thousand is a result determining the aggregated activity of the Company in two basic business segments, i.e. commercial contract research and implementation of innovative R&D projects. In the comparative period, the loss from operating activities amounted to PLN 11,554 thousand. (-9.3%)

When assessing and analysing this item in the P&L, it should be taken into account that the growing scale, number and value of the R&D projects implemented by the Company, as assumed in its strategic objectives, will increase the level of the Company's own share included in the costs of the projects conducted. This will directly affect the value of the generated loss on operations, however, the Company's own share in the incurred costs of R&D projects is treated 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 value of operating loss in 2021 is an expected value. The Company's long-term financial model assumes that the R&D project segment, which will grow in the coming years, will be financed primarily from external capital raised.

Net profit (loss)

The net loss in 2021 in the amount of PLN 11,765 thousand is mainly due to factors affecting loss from operating activities and results on financial activities. Results on financial activities were mainly shaped by revaluation write-offs on investment funds and interest on lease agreements for laboratory equipment used in the Company's operations.

Fixed assets

The main component of this balance sheet item amounting to PLN 4,175 thousand in 2021 (8.8% of total Assets) is property, plant and equipment amounting to PLN 3,446 thousand. In the overwhelming majority (94.8%), this is highly advanced laboratory equipment used on the basis of a rental or leasing agreements to carry out R&D projects.

The second key item of fixed assets is intangible assets. In the reporting period, they amounted to PLN 714 thousand, representing 17.1% of fixed assets and 1.5% of total assets. The largest item of intangible assets

as at 31 December 2021 was costs of completed development work – PLN 384 thousand (53.8%). These are the PureSelect and PureApta technology platforms

The value of fixed assets decreased by (- 29.3%) compared to the comparative period. This is due to the passage of time and the consequent change in value of, in particular, machinery and equipment used under IFRS 16 leases.

Current assets

Current assets in the reporting period amounted to PLN 43,015 thousand and accounted for 91.2% of the balance sheet total. They underwent a significant increase of +229.9% y-o-y (PLN 26,298 thousand) in relation to the value shown at the end of the comparative period. The main reason for the increase is the inflow of funds from the issue of series E shares.

The largest item of current assets constituted short-term financial assets measured at fair value (fund participation units): PLN 26,751 thousand, and cash and cash equivalents: PLN 6,178 thousand; another significant item was trade and other receivables (PLN 9,290 thousand). It consisted of receivables from grants (PLN 6,411 thousand) and budget receivables, including VAT to be refunded in the amount of PLN 2,809 thousand).

Equity

The value of equity as at 31/12/2021 was PLN 39,486 thousand and is a direct result of the accumulation of net loss generated in 2020 and losses from previous years. The value of this balance sheet item at the end of 2020 was negative and amounted to - PLN 2,887 thousand. In connection with the issue of series E shares, the Company's equity increased by PLN 51,514 thousand.

Long-termliabilities

Long-term liabilities at the end of the reporting period amounted to PLN 2,155 thousand and represent 4.6% of the balance sheet total. They are significantly (43.7%) lower than in the comparable period when they amounted to PLN 3 828 thousand. The reason for this 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 5,549 thousand and constitute 11.8% of the balance sheet total, which is 69.2% lower than at the end of the comparable period when they amounted to PLN 18,000 thousand. The reason for this is mainly the settlement as at 31/12/2021 of most of the advance payments for grants for R&D work in progress, which fell from PLN 12,228 thousand (as at 31/12/2020) to PLN 3,679 thousand (as at the end of the period covered by this report).

In the structure of liabilities, 66.3% are grants recognized over time (advances), 20.1% financial lease liabilities, 12.2% trade liabilities. These liabilities are settled according to contractual deadlines agreed with suppliers and beneficiaries. In the grant settlement system, NCBR requires payment of liabilities before submitting a refund or advance settlement application. It is therefore in the Company's interest to settle its liabilities 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 2021 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	Romuald Harwas
President of the Management Board, CEO	Vice-President of the Management Board, CFO

APPENDIX 1

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

	Note no.	Year closed on 31/12/2021	Year closed on 31/12/2020
Continued activities			
Revenue from commercial services	1	254	572
Revenues from grants	2	16,458	16,087
Operating revenues		**16,713**	**16,659**
Depreciation and amortisation	3	2,920	3,110
Consumption of materials and energy	4.	4,281	4,508
Rents and leases		1,978	2,417
Outsourced services		3,797	3,566
Payroll	5	12,535	12,638
Social security and other benefits	5.	2,383	1,840
Remaining costs by nature		598	237
Total operating expenses	**6**	**28,492**	**28,315**
Other operating income	8	29	164
Other operating expenses	8	51	62
Operating profit (loss)		**(11,802)**	**(11,554)**
Financial revenue	9	93	147
Financial expenses	9	1,376	349
Gross profit (loss)		**(13,085)**	**(11,756)**
Income tax	10	-	-
Net profit (loss) on continued operations		**(13,085)**	**(11,756)**
Discontinued operations			
Profit (loss) on stopped operations	11	-	-
Net profit (loss) for the period		**(13,085)**	**(11,756)**
Other net total incomes			
Other total incomes		-	-
Total income		**(13,085)**	**(11,756)**
Profit (loss) per share in PLN		(5.89)	(7.11)
Diluted net profit per share in PLN		(5.81)	(6.99)

in thousands PLN unless otherwise stated

II. SEPARATE STATEMENT OF FINANCIAL SITUATION

	Note nr	As at 31/12/2021	As at 31/12/2020
ASSETS			
Property, plant and equipment	13.	3,446	4,876
Intangible assets	14	714	1,028
Long-term financial assets measured at fair value	15	15	-
Deferred tax assets		-	-
Fixed assets		**4,175**	**5,904**
Trade and other receivables	16	5,611	1,352
Other assets	19	796	2,729
Cash and cash equivalents	17	6,178	8,956
Short-term financial assets measured at fair value	18	26,751	-
Fixed assets classified as assigned for sale	11	-	-
Current assets		**39,335**	**13,038**
ASSETS IN TOTAL		**43,510**	**18,942**

	Note no.	As at 31/12/2021	As at 31/12/2020
LIABILITIES			
Share capital	20	225	165
Supplementary capital	21	70,893	16,815
Retained profits / Unabsorbed losses	22	(19,867)	(8,112)
Current period result		(13,085)	(11,756)
Total equity	23	**38,167**	**(2,887)**
Deferred income tax provision		-	-
Provisions for employee benefits	24	42	49
Grants recognized over time	27	112	150
Lease liabilities		2,000	3,629
Long-term liabilities		**2,155**	**3,828**
Trade liabilities	26	674	2,756
Lease liabilities		1,113	1,376
Other liabilities	26	20	1,129
Provisions for employee benefits	24	62	512
Grants recognized over time	27	1,320	12,228
Short-term liabilities		**3,189**	**18,000**
Total liabilities		**5,344**	**21,829**
LIABILITIES IN TOTAL		**43,510**	**18,942**

in thousands PLN unless otherwise stated

III. SEPARATE STATEMENT OF CASH FLOWS

	Year closed on 31/12/2021	Year closed on 31/12/2020
OPERATING ACTIVITIES		
Net profit (loss)	**(13,085)**	**(11,756)**
Income tax, including:	-	-
Current income tax	-	-
Deferred income tax	-	-
Profit (loss) before tax	**(13,085)**	**(11,756)**
Adjustments	**(10,951)**	**10,403**
Depreciation and amortisation	2,920	3,110
Interest expense	227.	349
Management options programme	2,787	3,750
Change in receivables	(4,259)	(339)
Change in liabilities, excluding credits and loans	(3,191)	1,794
Change in provisions	(456)	237
Change in inventory	-	91
Change in other assets	1,934	(2,641)
Change in grants to be settled	(10,947)	4,199
Income tax (paid) refunded		-
Other adjustments	34	(147)
Net cash flows form operating activities	**(24,035)**	**(1,353)**
INVESTMENT ACTIVITIES		
I. Inflows	**8,251**	**-**
Inflows from sales of property, plant and equipment and intangible assets	6	-
Inflows from sales of financial assets	8,245	-
II. Outflows	**36,729**	**561**
Outflows on property, plant and equipment and intangible assets	673	561
Outflows on financial assets	36,041	-
Purchase of shares in companies	15	-
Net cash flows from investment activities	**(28,478)**	**(561)**
FINANCIAL ACTIVITIES		
I. Inflows	**52,110**	**-**
Inflows from the issue of shares	52,110	-
II. Outflows	**2,375**	**3,051**
Outflows on interest and commissions	227	349
Payment of liabilities arising from financial leases	2,148	2,702
Net cash flows from financial activities	**49,735**	**(3,051)**
TOTAL CASH FLOWS	**(2,778)**	**(4,965)**
CHANGE IN CASH AND CASH EQUIVALENTS	(2,778)	(4,965)
CASH OPENING BALANCE	8,956	13,921
CASH CLOSING BALANCE	**6,178**	**8,956**

IV. SEPARATE STATEMENT ON CHANGES IN EQUITY

For period closed on 31/12/2021

in thousands PLN unless otherwise stated

	Share capital	Supplementary capital	Retained profits / unabsorbed losses	(Total) equity
as at 1 January 2021	**165**	**16,815**	**(19,867)**	**(2,887)**
Net profit / loss for the period	-	-	(13,085)	(13,085)
Other total incomes	-	-	-	-
Total income for the period	**-**	**-**	**(13,085)**	**(13,085)**
Issue of shares	60	51,291	-	51,351
Distribution of the financial result	-	-	-	-
Share-based payments	-	2,787	-	2,787
as at 31 December 2021	**225**	**70,893**	**(32,952)**	**38,167**

	Share capital	Supplementary capital	Retained profits / unabsorbed losses	(Total) equity
as at 1 January 2020	**165**	**13,065**	**(8,112)**	**5,118**
Net profit / loss for the period	-	-	(11,756)	(11,756)
Other total incomes	-	-	-	-
Total income for the period	**-**	**-**	**(11,756)**	**(11,756)**
Issue of shares	-	-	-	-
Distribution of the financial result	-	-	-	-
Share-based payments	-	3,750	-	3,750
as at 31 December 2020	**165**	**16,815**	**(19,867)**	**(2,887)**

V. Information about the Company

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 as endorsed by the European Union, hereinafter referred to as "EU IFRS", which are effective until the end of 2021.

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 at 31 December 2021, the results of its operations, its cash flows and changes in equity for the year ended 31 December 2021. Comparative figures for the statement of financial position were prepared as at 31 December 2020. 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 2020.

These financial statements have been prepared based on the assumption that Company will continue as a going concern in the foreseeable future. As at the date of approval of these financial statements, the Company's Management Board does not identify any circumstances indicating a risk to the Company's ability to continue as a going concern.

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 at 31/12/2021	As at 31/12/2020
[EUR/PLN]	4.5994	4.6148

[USD/PLN]	4.0600	3.7584
[GBP/PLN]	5.4846	5.1327

Average exchange rates in the period	Year closed on 31/12/2021	Year closed on 31/12/2020
[EUR/PLN]	4.5775	4.4742
[USD/PLN]	3.8757	3.9045
[GBP/PLN]	5.3308	5.0240

Change in the presentation of the statement of comprehensive income.

In the prepared financial statements for 2021, the Company changed the presentation of the separate statement of profit or loss and other comprehensive income for the period ended 31/12/2021.

The change involves recognising operating expenses by nature and departing from the multiple step variant.

The change in the presentation of operating expenses in the separate statements of profit and loss and other comprehensive income is due to the Company's adaptation to market requirements and its attempt to align its presentation with other companies in the biotechnology industry present on the Stock Exchange, which allows it to provide investors with more useful and reliable financial information.

In accordance with IAS 8, the Company retrospectively applied the new presentation of the statement of comprehensive income and presented adjusted comparative figures.

Separate statement of profit or loss and other comprehensive income before amendment

(PLN '000)	Year closed on 31/12/2020
Continued activities	
Revenue from commercial services	572
Cost of services sold	273
Gross profit (loss) on sales	**300**
Revenues from grants	16,087
Revenues from sold R&D work results	-
Costs of research work	18,386
Project overheads	3,643
Operating profit (loss) on R&D activity	**(5,942)**
General administration expenses	6,014
Other operating income	164
Other operating expenses	62
Operating profit (loss)	**(11,554)**
Financial revenue	147
Financial expenses	349
Gross profit (loss)	**(11,756)**

in thousands PLN unless otherwise stated

Income tax	-
Net profit (loss) on continued operations	**(11,756)**
Discontinued operations	
Profit (loss) on stopped operations	
Net profit (loss) for the period	**(11,756)**
Other net total incomes	
Other total incomes	-
Total income	**(11,756)**

Profit (loss) per share in PLN	(7.11)
Diluted net profit per share in PLN	(6.99)

Amended separate statement of profit or loss and other comprehensive income

	(PLN '000) Year closed on 31/12/2020
Continued activities	
Revenue from commercial services	572
Revenues from grants	16,087
Operating revenues	**16,659**
Depreciation and amortisation	3,110
Consumption of materials and energy	4,508
Rents and leases	2,417
Outsourced services	3,566
Payroll	12,638
Social security and other benefits	1,840
Remaining costs by nature	237
Total operating expenses	**28,315**
Other operating income	164
Other operating expenses	62
Operating profit (loss)	**(11,554)**
Financial revenue	147
Financial expenses	349
Gross profit (loss)	**(11,756)**
Income tax	-
Net profit (loss) on continued operations	**(11,756)**
Discontinued operations	

in thousands PLN unless otherwise stated

Profit (loss) on stopped operations	-
Net profit (loss) for the period	**(11,756)**
Other net total incomes	
Other total incomes	-
Total income	**(11,756)**
Profit (loss) per share in PLN	(7.11)
Diluted net profit per share in PLN	(6.99)

VI. EXPLANATORY NOTES TO THE FINANCIAL STATEMENT

1. Revenue from commercial services

	Year closed on 31/12/2021	Year closed on 31/12/2020
Revenue from sales of services, including	139	534
domestic sales	31	381
export sales	108	153
Revenue from other sales, including:	116	39
domestic sales	18	39
export sales	97	-
	254	**572**

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 2021 were as follows:

	Year closed on 31/12/2021	Year closed on 31/12/2020
PB001 MutliBody	1,396	3,219
PB002 AptaPheresis	1,357	1,727
PB003 PureActivator	3,537	3,197
PB004 PureBIKE	5,615	2,897
PB005 Apta-MG	3,178	2,374
PB006 AptaMLN	507	593
PB007 MARA	590	1,166
PB008 MAGBBRIS	81	362
PB010 PureSelect2	115	387
Other	84	165
Total revenues from grants	**16,458**	**16,087**

In 2021, the Company used mainly expense grants. Expense grants recognised in revenue in 2021 amounted to PLN 16,458 thousand and in 2020 amounted to PLN 16,087 thousand.

in thousands PLN unless otherwise stated

3. Depreciation and amortisation

Depreciation and amortisation in 2021 was as follows:

	Year closed on 31/12/2021	Year closed on 31/12/2020
Depreciation and amortisation of property, plant and equipment	2,523	2,963
own	139	84
used under rental or lease agreements	2,384	2,879
Depreciation and amortisation of intangible assets	397	148
own	333	56
used under rental or lease agreements	64	92
Total depreciation and amortisation	**2,920**	**3,110**

4. Consumption of materials and energy

	Year closed on 31/12/2021	Year closed on 31/12/2020
Reagents	2,455	2,776
Laboratory supplies	1,271	1,437
Small laboratory appliances and equipment	269	97
Other materials and energy	287	197
Consumption of materials and energy	**4,281**	**4,508**

5. Employee benefit expenses

	Year closed on 31/12/2021	Year closed on 31/12/2020
Short-term employee benefits	9,353	8,888
Share-based payments	2,787	3,750
Other employee benefits	2,777	1,840
Total employee benefits costs	**14,918**	**14,478**

Headcount:

	Year closed on 31/12/2021	Year closed on 31/12/2020
Researchers	80	77
Administrative staff	21	19
	101	**96**

in thousands PLN unless otherwise stated

6. Operating expenses

	Year closed on 31/12/2021	Year closed on 31/12/2020
Costs of general administration and sales	7,755	6,014
Cost of sales	157	273
Costs of R&D projects	20,580	22,029
IN TOTAL	**28,492**	**28,315**

7. Research and development costs

R&D project costs in 2021:

	Year closed on 31/12/2021	Year closed on 31/12/2020
PB001 MutliBody	2,172	4,915
PB002 AptaPheresis	2,261	3,005
PB003 PureActivator	4,763	4,688
PB004 PureBIKE	6,413	3,513
PB005 Apta-MG	3,097	2,860
PB006 AptaMLN	1,190	741
PB007 MARA	-	1,166
PB008 MAGBBRIS	68	517
PB010 PureSelect2	-	624
PB013 AlterCar	87	
Other	530	-
Total costs of R&D projects	**20,580**	**22,029**

8. Other operating costs and revenues

Selected accounting principles

Specification of other operating income and expenses:

	Year closed on 31/12/2021	Year closed on 31/12/2020
Profit on the disposal of tangible assets	6	-
Settlement of accounts written-off	22	163
Other	2	1
Total other operating revenue	**29**	**164**

in thousands PLN unless otherwise stated

Employee benefits	-	3
Merck competition costs	-	8
Settlement of accounts written-off	47	49
Other	4	3
Total other operating expenses	**51**	**62**
Result on other operating activities	**(22)**	**102**

9. Financial revenue and expenses

	Year closed on 31/12/2021	Year closed on 31/12/2020
Interest on deposits	93	29
Foreign exchange gains	-	119
Total financial revenues	**93**	**147**
Interest, including:	227	349
- lease interest	227	349
- credits and loans interest	-	-
- other interest		
Other, including:	1,149	-
- revaluation write-offs on investment funds	1,085	-
- net foreign exchange losses	64	-
Financial liabilities in total	**1,376**	**349**
Result on financial activities	**(1,283)**	**(201)**

10. Income tax

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

	Year closed on 31/12/2021	Year closed on 31/12/2020
Current tax	-	-
Deferred tax	-	-
Total other operating revenue	**-**	**-**

in thousands PLN unless otherwise stated

Reconciliation of effective tax rate:

	Year closed on 31/12/2021	Year closed on 31/12/2020
Profit before taxation	(13,085)	(11,756)
Income tax calculated at the applicable rate of 19%		-
Tax effect of revenues which are not revenues according to tax regulations	16,553	18,441
Tax effect of non-deductible expenses under tax law	22,827	21,756
Adjustments reported in the current period in respect of tax of previous years		-
Tax base	**(6,810)**	**(8,440)**
Income tax expense on net profit	-	-
Effective tax rate	n/a	n/a

Deferred tax:

	Year closed on 31/12/2021	Year closed on 31/12/2020
Deferred tax assets		
Prepayments and accruals - research and development PAS 80%	-	380
Provision for unused holiday leave	10	490
Employer's social security contributions not paid on time	21	255
Provision for retirement severance pays	9	62
Leased assets - rental agreements	-	1
Leased assets - lease agreements	-	43
Remuneration not paid	-	65
Cellon Pharma	-	-
Valuation of foreign currency liabilities at balance sheet date		52
Total deferred income tax assets	**41**	**1,347**
Provision for deferred income tax		
Costs of development works	3	6
Leased assets - rental agreements	16	-
Leased assets - lease agreements	9	
Revaluation write-offs on financial assets	188	-
Provision for deferred income tax	**216**	**6**
Total	**(174)**	**1,342**
Write-off	174	(1,342)
Reported value	-	-

Tax losses available for settlement in future years as at the end of 2021:

	Year closed on 31/12/2021	Year closed on 31/12/2020

in thousands PLN unless otherwise stated

2017 tax loss	-	292
2018 tax loss	635	635
2019 tax loss	4,359	4,359
2020 tax loss	8,440	-
Total	**13,433**	**5,286**

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

	Year closed on 31/12/2021	**Year closed on 31/12/2020**
Average weighted number of ordinary shares in the period	2,221,123	1,654,000
Net profit (loss) (in PLN thousand)	(13,085)	(11,756)
Profit (loss) per share in PLN	**(5.89)**	**(7.11)**
Diluted		
Average weighted number of ordinary shares in the period	2,254,000	1,681,869
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)	(13,085)	(11,756)
Diluted net profit per share in PLN	**(5.81)**	**(6.99)**

13. Property, plant and equipment

Specification of property, plant and equipment in 2021 is set out below:

	As at 31/12/2021	**As at 31/12/2020**
Lands and buildings	76	231
Machines and equipment	3,265	4,579
Means of transportation	93	59
Other	12	8
Total	**3,446**	**4,876**

Changes in property, plant and equipment between 2012 and 2021 are shown below.

in thousands PLN unless otherwise stated

The year ended 31 December 2021	Lands and buildings	Machines and equipment	Means of transportation	Other	In total
Gross balance sheet value as at 01 January 2021	867	9,374	503	50	**10,794**
- Purchases		957	124	12	**1,093**
- liquidation		(7)			
- Sales					-
Gross balance sheet value as at 31 December 2021	**867**	**10,324**	**627**	**62**	**11,887**
Amortisation and revaluation write-offs as at 1 January 2021	636	4,795	444	43	**5,918**
- Depreciation write-off	155	2,270	90	8	**2,523**
- Revaluation write-off		(7)			-
- Sales					-
Amortisation and revaluation write-offs as at 31 December 2021	**791**	**7,059**	**534**	**50**	**8,441**
Net balance sheet value as at 1 January 2021	231	4,579	59	8	**4,876**
Net value as at 31 December 2021	**76**	**3,265**	**93**	**12**	**3,446**

Ownership structure of property, plant and equipment is shown below.

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

14. Intangible assets

Specification of intangible assets:

	As at 31/12/2021	As at 31/12/2020
Costs of completed development works	384.	654
Patents and licences	202	-
Other	128	373
Total	**714**	**1,028**

Change in intangible assets:

The year ended 31 December 2021	Costs of completed development works	Patents and licences	Other	In total
Gross balance sheet value as at 01 January 2021	1,125	205	484	**1,814**
- Purchases		83	-	**83**
- Sales				-
Gross balance sheet value as at 31 December 2021	**1,125**	**288**	**484**	**1,898**
Amortisation and revaluation write-offs as at 1 January 2021	471	31	284	**787**
- Depreciation write-off	270	55	72	**397**
- Revaluation write-off				-
- Sales				-
Amortisation and revaluation write-offs as at 31 December 2021	**741**	**86**	**357**	**1,184**

in thousands PLN unless otherwise stated

Net balance sheet value as at 1 January 2021	654	174	200	**1,028**
Net value as at 31 December 2021	**384**	**202**	**128**	**714**

Ownership structure of intangible assets:

	As at 31/12/2021	As at 31/12/2020
Own assets	634	884
Used under IFRS 16 leases	80	144
Total	**714**	**1,028**

15. Long-term financial assets

	As at 31/12/2021	As at 31/12/2020
Financial assets measured at fair value, including:	15	-
- shares of ProAnimali Sp. z o.o.	15	-
Total	**15**	**-**

16. Trade and other receivables

Selected accounting principles

Structure of trade and other receivables:

	As at 31/12/2021	As at 31/12/2020
Trade receivables	53	17
including from related entities	-	-
Receivables from grants payable	2,732	644
Budgetary receivables (including VAT to be refunded on acquired assets)	2,809	691
Other receivables from third parties	17	
including from related entities	-	
Net receivables in total	**5,611**	**1,352**
Revaluation write-off on receivables	-	-
Gross receivables	**5,611**	**1,352**

Trade receivables by maturity:

	As at 31/12/2021	As at 31/12/2020
Not overdue	-	17
Overdue, including:	53	-
0 – 30 days	50	-

in thousands PLN unless otherwise stated

30 – 90 days	3	-
90 – 180 days	-	-
180 – 360 days	1	-
over 360 days	-	-
TOTAL:	**53**	**17**

Currency structure of trade receivables:

	As at 31/12/2021	As at 31/12/2020
PLN	7	17
EUR	46	-
Total	**53**	**17**

17. Cash

Structure of cash and cash equivalents:

	As at 31/12/2021	As at 31/12/2020
Cash in hand	-	-
Cash at bank	6,178	8,956
Total	**6,178**	**8,956**

Cash and cash equivalents by currency:

18. Short-term financial assets measured at fair value

	As at 31/12/2021	As at 31/12/2020
Investment fund participation units	26,751	-
Other	-	-
Total	**26,751**	**-**

19. Other assets

Structure of other assets:

	As at 31/12/2021	As at 31/12/2020
Domains, licences, software	552	226
Insurance policies	24	17
Issue costs to be transferred to aggio	-	2,486
Subscriptions	6	-
Equipment hire	82	-
Patents	111	-
Other	20	-

in thousands PLN unless otherwise stated

Total	**796**	**2,729**

20. Share capital

	As at 31/12/2021	As at 31/12/2020
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	
Total	**2,254,000**	**1,654,000**
Nominal share price	0.10	0.10
Value of share capital	**225,400**	**165,400**

Shareholding structure - number of shares, number of votes:

The number of votes is equal to the number of shares

	As at 31/12/2021	As at 31/12/2020
Filip Jeleń	17.68 %	30.16 %
Aviva investors Poland TFI S.A.	7.56 %	0.00 %
Maciej Mazurek	7.10 %	9.68 %
Augebit FIZ	6.80 %	7.69 %
Piotr Jakimowicz	6.50 %	8.86 %
Andrzej Trznadel	3.59 %	4.90 %
Other	50.76 %	38.71 %
Total	**100.00 %**	**100.00 %**

21. Supplementary capital

	As at 31/12/2021	As at 31/12/2020
Opening balance of supplementary capital	16,815	13,065
Increase	54,078	3,750
agio	51,291	
Incentive Programme	2,787	3,750
Decrease		
Closing balance of supplementary capital	**70,893**	**16,815**

22. Retained profits (losses)

	As at 31/12/2021	As at 31/12/2020

in thousands PLN unless otherwise stated

Opening balance of profit (loss)	(8,112)	(8,112)
Increases	(11,756)	-
Net profit (loss) for the period	(11,756)	
other	-	-
Decrease	-	-
Distribution of profit gained in the previous years		
corrections of fundamental errors		
Closing balance of supplementary capital	**(19,867)**	**(8,112)**

23. Share capital increase in 2021

At the end of 2020, the Company successfully issued 600,000 series E shares through a public offering. The issue price per series E share was PLN 90.00.

On 02/02/2021, the Company received cash of PLN 52,100 thousand from the issue.

The Company's share capital increase was registered on 20/01/2021.

As a result, the Company's equity increased by PLN 51,514 thousand.

24. Provisions

Provision specification:

	As at 31/12/2021	As at 31/12/2020
Provision for retirement severance pays	50	62
long-term	42.	49
short-term	8.	13
Provisions for unused holiday leave	55	499
long-term	-	-
short-term	55.	499
Total	**105**	**561**

25. Lease liabilities

Specification of lease liabilities:	As at 31/12/2021	As at 31/12/2020
long-term	2,000	3,629
short-term	1,113	1,376
Total	**3,114**	**5,005**

Specification of lease liabilities by valuation method:

	As at 31/12/2021	As at 31/12/2020
Measured at amortised cost	3,114	5,005
Measured at fair value through current profit or loss	-	-
Total	**3,114**	**5,005**

Currency structure of lease liabilities:

in thousands PLN unless otherwise stated

	As at 31/12/2021	As at 31/12/2020
PLN	-	-
EUR	3,021	4,832
USD	93	173
GBP		-
CHF		-
Total	**3,114**	**5,005**

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			
2021	1,113	1,063	937	-	1,113	2,000	**3,114**
2020	1,376	2,335	1,295	-	1,376	3,629	**5,005**

26. Trade and otherliabilities

Selected accounting principles

Specification of trade and other liabilities:

	As at 31/12/2021	As at 31/12/2020
Trade liabilities	674	2,756
Public law liabilities, including	20	553
personal income tax	3	147
social security	3	386
State Fund for the Rehabilitation of the Disabled	13	9
Employee Capital Plans		11
Salary liabilities	-	573
Other liabilities	-	3
TOTAL:	**694**	**3,884**

Age structure of trade liabilities:

	As at 31/12/2021	As at 31/12/2020
Not overdue	330	2,169
Overdue, including:	344	587
0 – 90 days	297	541
91 – 180 days	(3)	8
181 – 360 days	51	38
over 360 days		-
TOTAL:	**674**	**2,756**

Currency structure of trade liabilities:

	As at 31/12/2021	As at 31/12/2020

in thousands PLN unless otherwise stated

PLN	551	2,201
EUR	8	9
USD	116	416
GBP	-	130
CHF		-
Total	**674**	**2,756**

27. Subsidies

Grant specification.

	As at 31/12/2021	As at 31/12/2020
Long-term, including	112	150
development subsidies	112	150
advances for research and development		
Short-term, including	1,320	12,228
development subsidies	-	346
advances for research and development	1,320	11,882
Total	**1,432**	**12,378**

Within subsidies, the Company reported grants recognized over time to development costs activated within intangible assets and advances received for ongoing research projects, which are treated in their entirety as short-term as they are settled within 180 days of receipt. The y-o-y change in advances resulted from the settlement of the majority of advances as at 31/12/2021.

Grants and advances for grants by project:

	As at 31/12/2021	As at 31/12/2020
long-term	**112**	**150**
PB012 PureApta - Completed development works	112	150
short-term	**1,320**	**12,228**
PB001 MutliBody	7	3,276
PB002 AptaPheresis	5	1,308
PB003 PureActivator	658	2,259
PB004 PureBIKE	553	3,129
PB005 Apta-MG	28	712
PB006 AptaMLN	1	457
PB007 MARA	-	650
PB008 MAGBBRIS	-	92
PB010 PureSelect2	-	346
PB013 AlterCar	68	-
Total	**1,432**	**12,378**

28. Financial instruments

Selected accounting principles

Valuation of financial assets and liabilities

in thousands PLN unless otherwise stated

Upon initial recognition, the Company measures a financial asset or financial liability not classified as measured at fair value through profit or loss (i.e. held for trading) at fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability. The Company does not classify instruments as measured at fair value through profit or loss on initial recognition, i.e. it does not apply the fair value option.

At the end of the reporting period, the Company measures a financial asset or liability at amortised cost using the effective interest rate method, except for derivatives, which are measured at fair value.

The Company uses simplified methods for the valuation of financial assets and liabilities measured at amortised cost if this does not distort the information contained in the statement of financial position, in particular where the period until the repayment of the receivable or settlement of the liability is not long.

Financial assets measured at amortised cost, for which the Company applies simplifications, are measured on initial recognition at the amount of payment required and subsequently, including at the end of the reporting period, at the amount of payment required less expected credit loss.

Financial liabilities, for which the Company applies simplifications, are measured at initial recognition and thereafter, including at the end of the reporting period, at the amount required to be paid.

With regard to equity instruments, in particular listed/unlisted shares held for trading, the Company classifies the instruments as measured at fair value through other comprehensive income.

Profits and losses resulting from changes in the fair value of derivatives which do not qualify for hedge accounting are directly recognised in the net profit or loss for the reporting period.

Impairment of financial assets

The Company uses the following models to determine impairment losses:

- general (basic) model,
- simplified model.

The general model is used by the Company for financial assets measured at amortised cost - other than trade receivables and for debt instruments measured at fair value through other comprehensive income.

Under the general model, the Company monitors changes in the level of credit risk associated with a financial asset and classifies financial assets into one of three stages for determining impairment losses based on the observation of changes in the level of credit risk in relation to the initial recognition of the instrument.

The simplified model is used by the Company for trade and other receivables.

Under the simplified model, the Company does not monitor changes in the level of credit risk over the life of the instrument, but estimates the expected credit loss over the time horizon to maturity of the instrument.

The Company incorporates forward-looking information into the parameters of the expected loss estimation model used by calculating probability of default parameters based on current market quotations.

Fair value determination

The Company makes maximum use of observable inputs and minimum use of unobservable inputs to estimate fair value, which is the price that would be achieved in a transaction conducted under normal

conditions for the transfer of a liability or equity instrument between market participants at the measurement date and under current market conditions.

The Company measures derivatives at fair value using financial instrument valuation models using publicly available exchange rates, interest rates, forward and volatility curves for currencies and commodities derived from active markets.

The entity measures fair value using the following hierarchy:

- quoted prices (unadjusted) in active markets for identical assets or liabilities,
- inputs other than quoted prices included within Level 1 that are directly or indirectly observable. Where an asset or liability has a finite life, the inputs must be observable for substantially the whole of that life,
- inputs that are not based on observable market data. The assumptions used, including risk factors, must reflect those that would be used by market participants.

There were no assets or liabilities measured at fair value during the period covered by this report.

Hedging Accounting

There was no hedge accounting in the period covered by the financial statements.

Professional judgement

The Management Board exercises judgement in classifying financial instruments, assessing the nature and extent of risks associated with financial instruments and applying cash flow hedge accounting. Financial instruments are classified into categories depending on the purpose for which they are acquired and the nature of the assets acquired.

Classification of financial instruments:

	Category	Balance sheet value		Fair value	
	according to IFRS 9	31/12/2021	31/12/2020	31/12/2021	31/12/2020
Financial assets					
Trade and other receivables	FAMaAC	5,611	1,352	5,611	1,352
Financial assets measured at fair value	FAMzFVthPL	15		15	
Cash and cash equivalents	FAMaAC	6,178	8,956	6,178	8,956
Short-term financial assets measured at fair value	Financial assets measured at fair value through profit or loss	26,751		26,751	
Financial liabilities					
Bank loans and borrowings received	FLMaAC				
Other financial liabilities (lease)	Financial assets measured at amortised cost	3,114	5,005	3,114	5,005
Trade and other liabilities	Financial assets measured at amortised cost	694	3,884	694	3,884

Applied abbreviations:
Financial assets measured at fair value through profit or loss – *Financial assets measured at fair value through profit or loss*

in thousands PLN unless otherwise stated

FAMaAC	*– Financial assets measured at amortised cost*
FLMaAC	*– Financial liabilities measured at amortized cost*

The fair value of the financial instruments that the Company held at 31 December 2021 did not differ materially from the value presented in the financial statements for the following reasons:

- with regard to short-term instruments, the possible discounting effect is not material,
- these instruments relate to transactions concluded at arm's length.

29. Capital risk management

The Company's objective in managing capital risk is to protect the Company's ability to continue as a going concern so that returns to shareholders and benefits to other stakeholders can be realised, and to maintain an optimal capital structure to reduce the cost of capital.

The Company monitors capital using a debt ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as the sum of borrowings, lease liabilities, advances on grants and other liabilities less cash and cash equivalents. Total capital is calculated as equity as shown in the separate statement of financial position together with net debt.

No external capital requirements are imposed on the Management Board except that, according to Article 396 §1 of the Code of Commercial Companies, to which PURE BIOLOGICS S.A. is subject, to cover the loss, a capital reserve must be created, to which at least 8% of the profit for a given financial year is transferred, until this capital reaches at least one third of the share capital.

The financing structure of the Company is shown in the table below:

Financing structure	As at 31/12/2021	As at 31/12/2020
Interest-bearing credit facilities and loans	-	
Leasing liabilities	3,114	5,005
Trade liabilities and other liabilities	694	3,884
Advances received for research and development	1,320	11,882
Cash and cash equivalents* (-)	32,929	8,956
Net debt	**-27,801**	**11,816**
Equity	38,167	-2,887
Net equity and debt	**10,365**	**8,929**
Debt ratio	n/a	132 %

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. As part of this review, the Board assesses the cost of capital and risk for each class of capital.

30. Financial risk management

For the financial periods ended 31 December 2021 and 31 December 2020, 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:

in thousands PLN unless otherwise stated

	As at 31/12/2021		As at 31/12/2020	
	Amount in foreign currency	Amount in PLN	Amount in foreign currency	Amount in PLN
Assets denominated in foreign currencies, including:				
in USD			1	6
in EUR	14	63	4	18
	14	**63**	**5**	**23**
Liabilities denominated in foreign currencies, including:				
in USD	4	18	111	416
in GBP	-	-	25	130
in EUR		1	2	9
	4	**18**	**138**	**555**

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:

	As at 31/12/2021		As at 31/12/2020	
	Impact on net result	Impact on equity	Impact on net result	Impact on equity
Increase in exchange rate by 10%	4	4	(43)	(43)
Decrease in exchange rate by 10%	(4)	(4)	43	43

Interest rate risk

In 2021, financial assets and financial liabilities by type of exposure to interest rate risk were as follows:

	As at 31/12/2021	As at 31/12/2020
Financial assets		
interest-free	2,802	661
fixed interest rate		
variable interest rate		
	2,802	**661**
Financial liabilities		
interest-free	1,607	4,438
fixed interest rate		
variable interest rate	2,181	3,899
	3,788	**3,899**

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 31/12/2021**	**Year closed on 31/12/2020**
Interest rate increase of 1 pp	(21.12)	(19.97)
Interest rate decrease of 1 pp	21.12	19.97

in thousands PLN unless otherwise stated

31. Contingent assets and liabilities

Contingent assets

As at 31 December 2021, the Company did not have any contingent assets.

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.

32. Share-based payments

1st Incentive Programme

According to the valuation, the value of the incentive programme in each quarter of the years 2019-2021 is as follows:

2nd 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
Q4 2022	1,112	5,102
Q1 2023	647	5,750
Q2 2023	655	6,405

33. 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 2021 to 31 December 2021 amounts to PLN 30 thousand.

in thousands PLN unless otherwise stated

34. 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.

35. Approval of the financial statements

These separate financial statements of PURE BIOLOGICS S.A. for the year ended 31 December 2021 were prepared in accordance with International Financial Reporting Standards, as adopted by the European Union, and approved by the Management Board on 31 March 2022.

Dr Filip Jan Jeleń, MBA

President of the Management Board, CEO

Romuald Harwas

Vice-President of the Management Board, CFO

Brygida Rusinek

Person responsible for the preparation

of the financial statements