
Fourth quarter results
2021
targovax

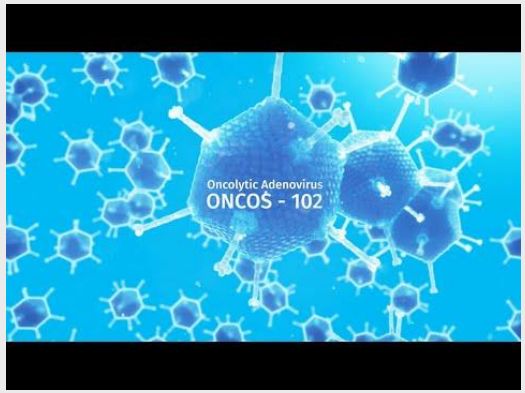
About Targovax

Activating the patient's immune system to fight cancer

Targovax (OSE:TRVX) is a clinical stage immuno-oncology company developing immune activators to target hard-to-treat solid tumors. Targovax's focus is to activate the patient's immune system to fight cancer, and thereby bring benefit to cancer patients with few available treatment alternatives. Targovax is assessing its product candidates in different cancer indications, including melanoma, mesothelioma and colorectal cancer, and has demonstrated a favorable safety and tolerability profile.

Targovax's lead clinical candidate, ONCOS-102, is a genetically modified oncolytic adenovirus, which has been engineered to selectively infect cancer cells and activate the immune system to fight the cancer. On the back of very encouraging clinical data in several indications, both as monotherapy and in immunotherapy and chemotherapy combinations, the next development step for ONCOS-102 will be to further improve immune activation and clinical response in melanoma patients resistant to PD1 checkpoint blockade.

To learn more about ONCOS-102's mechanism of action, watch our latest video which is available either by clicking on the image to the right or via our website.



Fourth quarter presentation

The management will hold an online presentation 17 February 2022 at 10:00 CET.

The presentation will be webcast live and can be accessed here and at ***www.targovax.com***.

Upcoming conferences / events

15 Mar:	Carnegie Healthcare seminar
6-7 Apr	DKBIO 2022
8-13 Apr	AACR Annual meeting 2022
27-28 Apr	Europe Neoantigen Summit 2022
10-12 May	Cancer Progess Conference 2022
18 May	Preclinical Immuno-Oncology symposium

Upcoming data milestones

1H 2022:	ONCOS-102 Phase 1/2 trial with anti-PDL1 in colorectal cancer *– Clinical data at scientific conference*
1H 2022	ONCOS-102 Phase 1/2 trial in unresectable malignant pleural mesothelioma *– Full study data at scientific conference*
4Q22/1Q23:	ONCOS-102 Phase 2 trial with anti-PD1 in PD1 Refractory Melanoma *– First patient enrolled in phase 2 trial*

Financial calendar 2022

9 Mar 2022:	Annual Report
20 Apr 2022:	Annual General Meeting
12 May 2022:	First Quarter presentation
18 Aug 2022:	Second Quarter presentation
3 Nov 2022:	Third Quarter presentation

Fourth Quarter highlights

- Appointed Dr. Erik Digman Wiklund as Chief Executive Officer, previously CBO of Targovax and co-discoverer of circular
- Expanded the pipeline programs into circular RNA delivery
- Reported 25.0 months median overall survival (mOS) for ONCOS-102 combined with chemotherapy in first line mesothelioma
- Completed a rights issue raising gross proceeds of NOK 175m
- Received NOK 9.8m research grant award by the Research Council of Norway towards the TG mutant KRAS vaccine program
- Presented two posters at the Society for Immunotherapy of Cancer (SITC) Annual Meeting
- Appointed Ola Melin as Head of Manufacturing

Post-period highlights

- In January 2022, appointed circular RNA co-discoverer Dr. Thomas B Hansen as VP of Research to lead the NextGen ONCOS circRNA pipeline program
- In February 2022, announced a research collaboration with Prof. Michael Uhlin at Karolinska Institutet in Stockholm, Sweden, for development and characterization of NextGen ONCOS viruses
- In January 2022, received NOK 8.2m grant award by Innovation Norway towards the TG mutant KRAS vaccine program
- In January 2022, received patents for ONCOS-102 in combination with chemotherapy in China and Japan

Key figures

Amounts in NOK thousands	4Q 2021	4Q 2020	FY 2021	FY 2020
Total operating revenues	-	-	-	624
Total operating expenses	-25 523	-22 872	-95 601	-104 524
Operating profit/loss	-25 523	-22 872	-95 601	-103 901
Net financial items	-1 129	-3 413	-2 422	-4 503
Income tax	10	57	52	277
Net profit/loss	-26 641	-26 229	-97 971	-108 126
Basic and diluted EPS (NOK/share)	-0.28	-0.28	-1.10	-1.40
Net change in cash	127 617	44 665	59 360	51 893
Cash and cash equivalents start of period	54 064	77 657	122 321	70 429
Cash and cash equivalents end of period	181 682	122 321	181 682	122 321

The interim financial information has not been subject to audit

CEO statement

During 2021, adenoviruses clearly pulled ahead as the most promising class for oncolytic immunotherapy, as demonstrated by convincing clinical data from both Targovax (ONCOS-102) and several of our peers. When it comes to the breadth, depth, and consistency of the translational analyses from our phase 1/2 clinical program, the totality of the ONCOS-102 data package is second to none. As such, Targovax can now soundly be considered one of the front-runners in the oncolytic virotherapy space. We are planning to leverage this position by building an innovative pipeline of NextGen ONCOS viruses, including a move into the emerging circular RNA field.

Over the past year, we have delivered strong efficacy data for our lead product candidate ONCOS-102 in both melanoma and mesothelioma, which allows us to forge ahead with our R&D program. Broad translational analyses of patient tumor tissue confirm the promising efficacy outcomes and provide deep understanding of the immune activating potential and underlying biological mechanism of action of ONCOS-102.

The unique insights we have generated in the clinic set us up to do two things. First, we can optimize our clinical development strategy with differentiated, scientifically hand-picked immune-oncology (IO) combinations to complement and boost the efficacy of ONCOS-102 and further separate us from the competition. Second, we can build on real-world, clinical evidence to design smart and innovative next generation ONCOS delivery vectors to maximize the potential of our platform. I am particularly enthusiastic about our new circular RNA (circRNA) program, where we have a unique first-in-class opportunity to leverage our clinically validated ONCOS delivery system to bridge into the rapidly evolving RNA therapeutics field.

As we look to 2022, the top three priorities for Targovax are to:

- **Let the science guide us:** We will make smart, scientifically based decisions building on data and insights generated in the phase 1/2 program
- **Advance ONCOS-102 in melanoma:** We aim to boost response rates beyond 35% ORR through carefully selected, differentiated IO combinations
- **Establish ONCOS as a versatile delivery platform:** We will engineer next generation ONCOS viruses to deliver circRNA and highly targeted, immune stimulatory genetic payloads.

Ambitious plans cannot be delivered without a strong team and sufficient resources. Therefore, we have made key recruitments in science, clinical development and manufacturing, attracting highly skilled, experienced individuals with a track record of innovation and execution. Through our collaboration with Prof. Michael Uhlin at Karolinska Institutet, we have secured access to a world-leading immunotherapy environment, providing the infrastructure we need to quickly put our circRNA pipeline plans into action. In addition, we raised NOK 175m in gross proceeds in a rights issue in December 2021, which gives us the necessary financial flexibility both to prepare for the next ONCOS-102 trial in melanoma and expand the aspirations of our next generation immunotherapy pipeline.

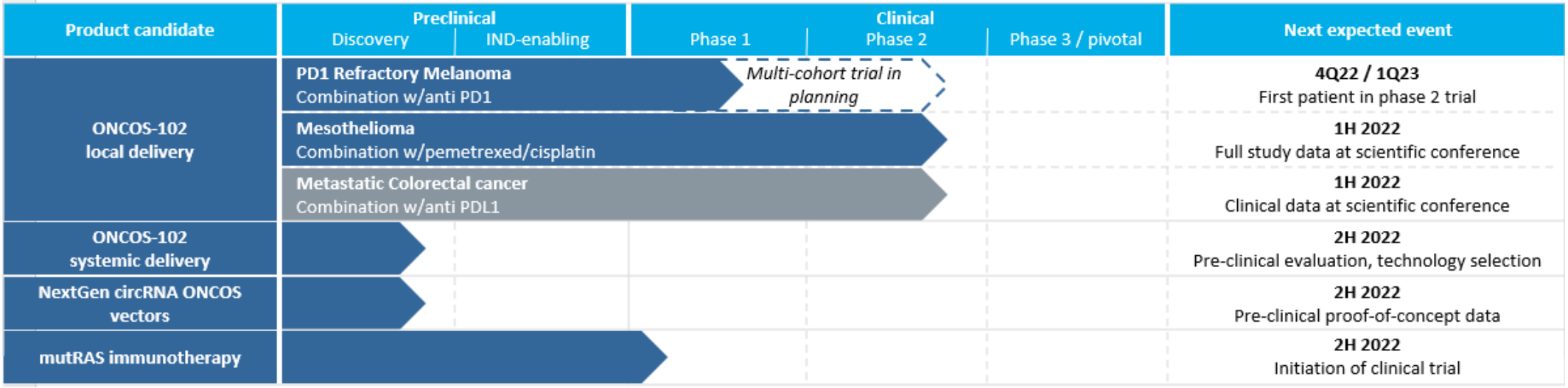
It is with great excitement that I and the whole Targovax team take on the challenge to deliver on our ambitious plans, with a clear vision to capture the full potential that lies in the ONCOS delivery platform. We aim to create and validate potent, differentiated product candidates that will bring benefit to patients with advanced solid tumors, and to build value for both new and existing shareholders as we do so.

Dr. Erik Digman Wiklund

CEO Targovax Group

Development pipeline and newsflow

Trial run by collaboration consortium



ONCOS-102 in PD1 refractory advanced melanoma

The trial explored safety, immune activation, and clinical responses, of ONCOS-102 and Keytruda (pembrolizumab), an anti-PD1 checkpoint inhibitor (CPI), in patients with advanced or unresectable melanoma whose tumors have continued to grow following prior CPI therapy. The trial was conducted at the Memorial Sloan Kettering Cancer Center in New York, Fox Chase Cancer Center in Philadelphia, University of Maryland Comprehensive Cancer Center in Baltimore as well as Oslo University Hospital.

Topline efficacy results were announced late 2020 and showed class-leading objective response rates (ORR) as well as effects on non-injected lesions:

- Tumor responses observed in 7 out of 20 evaluable patients, resulting in overall response rate (ORR) of 35%
- Evidence of systemic activity was observed in multiple patients, including two cases where a non-injected lesion completely disappeared
- Broad and strong immune activation was observed by several analytical methods, with a clear association to patient outcome
- Confirmed the ability of ONCOS-102 to re-sensitize PD1 refractory tumors to respond PD1-blockade

As the next step in PD1 refractory melanoma, Targovax intends to continue with a multi-cohort phase 2 trial where ONCOS-102 will be tested in various combinations to further improve the ORR, including anti-PD1, double checkpoint and potentially also other novel immunotherapies.

Based on the encouraging findings to date, Targovax received Fast Track designation for PD-1-refractory advanced melanoma from the US Federal Drug Administration (FDA) in June 2021, which is an endorsement by the US FDA of the strength and relevance of the ONCOS-102 data package. The FDA Fast Track designation is awarded to therapies with the potential to address unmet medical needs in serious medical conditions and allows for more frequent interactions with the FDA to expedite clinical development and the regulatory review processes. Fast Track products have high likelihood of receiving Priority Review for a future Biologics License Application (BLA) and may be allowed to submit parts of the application for rolling review to shorten the approval timeline.

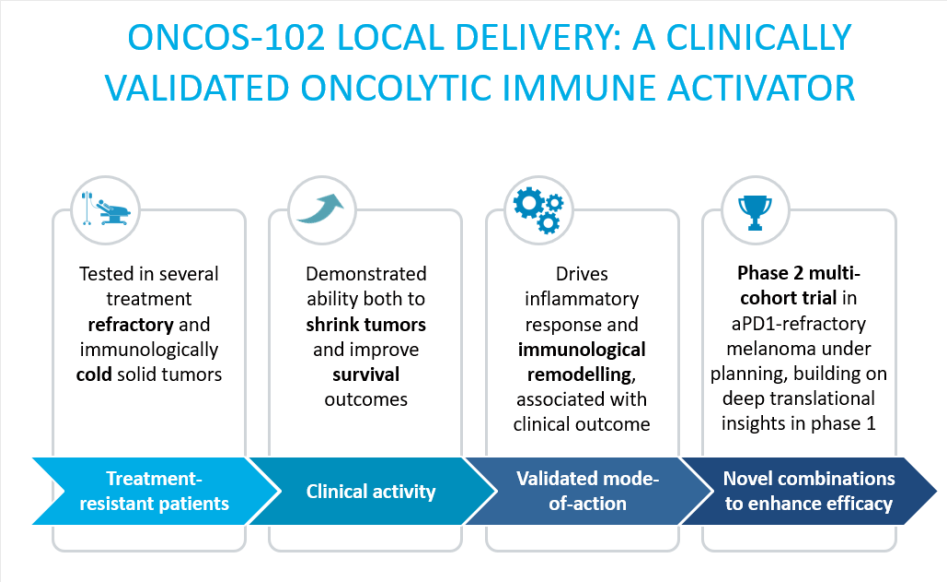
ONCOS-102 in malignant pleural mesothelioma

The trial was an open label, randomized, exploratory phase 1/2 adding ONCOS-102 to standard of care (SoC) chemotherapy (pemetrexed/cisplatin) in first and second (or later) line malignant pleural mesothelioma (MPM) to assess safety, immune activation and clinical efficacy of the combination treatment. In total, 31 patients were included.

At the 30-month follow-up, median overall survival (mOS) was 25.0 months for the subgroup of randomized, first-line ONCOS-102-treated patients (n=8). This is a clear improvement over the mOS of 13.5 months observed in the first-line SoC-only control group (n=6) as well as historical control of 12-16 months for patients receiving the same SoC chemotherapy treatment in the first-line setting1. The combination of Opdivo/Yervoy double checkpoint inhibition was recently approved as a first-line treatment option for MPM based on a phase 3 trial showing 18.1 months mOS.

Immune activation was assessed in tumor biopsies pre- and post-ONCOS-102 treatment (Day 0 and Day 36). The tumor tissue analyses revealed powerful and consistent ONCOS-102-induced remodeling of the tumor microenvironment with increased T-cell infiltration and a shift towards pro-inflammatory immune cells, far beyond what was observed for the SoC-only control group. This immune activation is associated with tumor responses and is most pronounced in patients with better survival outcomes, indicating that the immune activating capacity of ONCOS-102 is driving the clinical benefit for patients.

Based on the encouraging efficacy and the associated broad immune activation, the US FDA granted ONCOS-102 Fast Track designation for malignant pleural mesothelioma in February 2021.



ONCOS-102 in metastatic colorectal cancer – collaboration trial

This is a single arm, open-label, multi-center phase 1/2 trial, where ONCOS-102 is administered intraperitoneally in combination with systemically delivered Imfinzi (durvalumab, an anti-PD-L1 antibody), to patients who have metastatic colorectal cancer with peritoneal carcinomatosis and have failed prior standard therapies. The trial will assess the safety, immune activation and anti-tumor activity of the ONCOS-102 and Imfinzi combination and is financed by Cancer Research Institute and run by Ludwig Cancer Research. Targovax was selected to participate with ONCOS-102 as the virus of choice for this trial. The trial completed recruitment in June 2021 with a total of 33 patients enrolled.

The safety reviews during the dose escalation part of the trial were completed with no dose limiting toxicities, and the ONCOS-102 and Imfinzi combination showed good tolerability. Clinical results from the trial is intended to be published by Targovax´s collaboration partners at a scientific conference during 1H 2022.

Next generation ONCOS viruses and circRNA

The recent success of adenoviral technology in the Covid-19 vaccine space has strengthened the rationale to fully exploit the capability of the ONCOS technology as a delivery system for targeted genetic payloads. Emerging clinical data from Targovax and others indicate that adenovirus is a superior oncolytic vector, particularly when compared to herpes and vaccinia-based approaches.

The ONCOS platform is based on a highly immunogenic, versatile double-stranded DNA adenovirus serotype 5 backbone with two genetic modifications to enhance cancer selectivity:

1. A 24bp deletion in the E1A region to ensure selective replication in actively dividing cells, such as cancer cells
2. Replacement of the serotype 5 to a serotype 3 fiber knob; making the virus primarily infect via the DSG2 and CD46 receptors, which are typically upregulated on cancer cells

Targovax has a portfolio of novel ONCOS viruses in pre-clinical development, both in-house and through collaboration with partners. In the second generation ONCOS viruses, the DNA payload capacity of the backbone has been increased beyond ONCOS-102 to include two transgenes. The first pre-clinical results from the ONCOS-200 series were presented at the American Association for Cancer Research (AACR) Annual Meeting in June 2020, demonstrating clear anti-cancer activity and mechanistic synergism between the two transgene payloads. These encouraging observations are being further investigated to elucidate transgene functionality and mechanism of action *in vivo*.

From the wholly owned ONCOS-200-series, ONCOS-211 has been selected as the lead candidate for further development. This construct carries two transgenic payloads, ICOS-L and ADA. ICOS-L provides a stimulatory signal driving T-cells into their cytotoxic effector state, and ADA removes immune-suppressive adenosine thereby promoting a pro-inflammatory tumor micro-environment. In combination, these two transgenes add targeted immune-stimulatory firepower to the already strong immune-activating properties of ONCOS.

Targovax has also recently initiated a program to explore how circRNA can be engineered into NextGen ONCOS vectors to further enhance the delivery of genetic payloads directly into the cancer cells. circRNA has the advantage of being resistant to exonuclease degradation and is therefore more chemically stable and has longer half-life than linear RNAs. With the circRNA approach, Targovax has the potential to expand the ONCOS technology into a versatile and unique platform system for enhanced transgene delivery, as well as to build additional regulatory functionality into the viral backbone. In January 2022, Targovax appointed circRNA co-discoverer and pioneer Dr. Thomas B Hansen to drive this program, in close collaboration with the research team of Prof. Michael Uhlin at Karolinska Institutet in Stockholm.

In 2020, Targovax entered into a collaboration agreement with Valo Therapeutics to evaluate coating of ONCOS-102 with TG mutant KRAS peptides using Valo´s PeptiCrad technology with the aim of creating an oncolytic mutant KRAS vaccine. Targovax also has a research collaboration with Oblique Therapeutics to utilize ONCOS as a delivery vector for Oblique´s proprietary AbiProt antibodies targeting mutant KRAS. Through these projects, Targovax is exploring the opportunity for bridging its oncolytic virus and KRAS technologies and expertise, and if successful, to generate first-in-class viral therapies engineered to directly target oncogenic KRAS driver mutations.

Under these collaborations, Targovax and the respective partners will jointly investigate the technical feasibility, immune modulatory and anti-cancer properties of encoding these novel payloads in the ONCOS backbone both in vitro and *in vivo*. The resulting constructs and any novel IP will be jointly owned, and additional functionality can be built in to stimulate multiple complementary anti-tumor mechanisms. Targovax is actively pursuing additional, similar collaborative partnerships to expand the pipeline and access novel complementary technologies where a synergy can be expected with ONCOS.

In summary, Targovax has a broad pipeline of both in-house and partnered pre-clinical research programs, which will be an important focus area in the short- to mid-term to expand and demonstrate the broader potential of ONCOS as a flexible, immune stimulatory, clinically validated delivery platform.

Mutant KRAS platform

The mutant KRAS program is based on the TG neoantigen vaccine, which covers up to eight different KRAS driver mutations. Oncogenic KRAS mutations are the key genetic driver behind up to 30% of all cancers, and therefore considered a highly attractive target in drug development. A 32-patient phase 1/2 clinical trial evaluating TG01 in resected pancreatic cancer in combination with standard of care chemotherapy (gemcitabine) reported mOS of 33.3 months in May 2019. The mOS compares favorably to the ESPAC4 historical control trial of gemcitabine monotherapy, which reported mOS from surgery of 27.6 months. These data were corroborated by robust and durable immune responses in vaccinated patients, and several examples of clearance of residual mutant RAS cancer cells after surgery were observed by ctDNA analysis. The company has attained Orphan Drug Designation for TG01 in pancreatic cancer in both the US and Europe.

In December 2021, Targovax received a NOK 9.8 million research grant award by the Research Council of Norway towards the TG mutant KRAS program, and in January 2022, Targovax was awarded an additional NOK 8.2 million grant by Innovation Norway to accelerate product development activities related to the company's TG mutant KRAS vaccine program and planned clinical trials. These grants will enable continued clinical development of Targovax's TG vaccine candidates, as well as support important immunological characterization and product development.

Targovax is also actively working to create shareholder value from the TG technology through cost effective partnerships. Consistent with this approach, Targovax has entered into several collaboration agreements. In January 2020, Targovax and IOVaxis Therapeutics entered into an option agreement for an exclusive license to develop and commercialize the TG01 and TG02 vaccines in Greater China and Singapore. The intention is that IOVaxis will exercise the option to license TG upon the first regulatory IND approval to start a clinical trial in China. IOVaxis paid an option fee of USD 250,000 to Targovax, and an additional USD 3 million upfront fee is due when the exclusive license option is exercised. The total development and commercial milestones in the deal are worth up to USD 100 million, in addition to tiered royalties on sales up to the mid-teens.

In 2022, Targovax expects to form one or more academic and/or commercial collaborations with TG-01 that will involve innovative clinical combination trials.

Preclinical development of ONCOS-102

Targovax has conducted several *in vivo* studies of ONCOS-102 in mesothelioma and melanoma mouse models to investigate the mode of action and assess the efficacy for the clinical combination strategies in these indications. Data have been published at scientific conferences and in leading, peer reviewed journals.

It has been shown that ONCOS-102 and PD-1 checkpoint inhibition (Keytruda) act synergistically in a humanized melanoma mouse model, driving both tumor volume reduction and anti-tumor T-cell immunity (Kuryk et al. Oncoimmunology 2018):

- Keytruda alone did not reduce tumor volume in the selected mouse model
- ONCOS-102 reduced tumor volume by 51%
- ONCOS-102 + Keytruda reduced tumor volume by up to 69%
- ONCOS-102+ Keytruda induced an abscopal effect, validating the proposed mode of action that ONCOS-102 can generate systemic anti-tumor immune responses (Kuryk et al. JMV 2019)

Similarly, in a mesothelioma mouse model, it has been demonstrated that ONCOS-102 acts synergistically with chemotherapy to reduce tumor volume and drive tumor-specific immune responses (Kuryk et al, 2018, JMV):

- Chemotherapy alone did not reduce tumor volume in the selected mouse model
- ONCOS-102 alone reduced tumor volume by 56%
- ONCOS-102 + chemotherapy reduced tumor volume by 75% relative to chemotherapy alone and by 33% relative to ONCOS-102 alone
- ONCOS-102 induced a mesothelin specific anti-tumor CD8+ T-cell response

IPR / Market exclusivity

Targovax owns a broad patent portfolio which is designed to protect its drug candidates and includes different families of patents and patent applications covering drug compositions, and relevant combination therapies. This patent portfolio also covers potential future product candidates. The company continuously works to strengthen its patent portfolio.

Targovax has granted patents in Europe, China and Japan for the use of ONCOS-102 in combination with chemotherapy in malignant pleural mesothelioma:

- In October 2021, Targovax was granted the EU patent no 3402889 by the European Patent Office (valid until 2037)
- In November 2021, Targovax was granted patents no CN108495934 and JP6974350 by the Chinese and Japanese Patent Offices, respectively (valid until 2037)

In March 2021, Targovax was granted the US Patent no 10,940,203 by the US Patent Office. The patent covers the use of ONCOS-102 in combination with checkpoint inhibitors until 2036.

These patents protect Targovax's innovative oncolytic immunotherapy platform and strengthen the company's market position.

Targovax has attained Orphan Drug Designation in the EU and US for the use of ONCOS-102 in mesothelioma, ovarian cancer, and soft tissue sarcoma, supporting a rapid path to commercialization and ensuring up to ten years of market protection from the date of market approval in any of these indications.

Experienced team

Targovax has a strong senior management team with a versatile range of backgrounds from successful biotech companies and major global pharmaceutical companies, as well as management consulting.

Management team

Changes to the team:
Dr Erik Digman Wiklund was appointed Chief Executive Officer (CEO) in October 2021. Dr. Wiklund has a strong scientific background in cancer research and RNA biology, and intimate knowledge of the company and its technology having served as Chief Business Officer (CBO) and Chief Financial Officer (CFO) of Targovax since 2017.

Øystein Soug, Targovax's former CEO, will remain with the company until April 2022. Mr Soug will act as a special advisor and also serve as interim CFO providing important strategic and management continuum for the company.

Ola Melin joined Targovax 1 October 2021 as Head of Manufacturing. Melin has over 25 years' experience in Biologics development, manufacturing, and supply, most recently as Director of Technical Operations at OxThera AB, where he was responsible for clinical supply and for establishing a commercially ready manufacturing process and supply chain. Prior to that Ola spent 18 years at Biovitrum and Sobi AB, where he held senior leadership roles as Head of External Manufacturing and Head of Product Supply, as well as other CMC positions. Ola will take a leading role in driving Targovax's Chemistry, Manufacturing and Controls (CMC) program forward and he will serve as a member of Targovax's management team.

The management team as per 17 February 2022:

Name	Position
Erik Digman Wiklund	CEO
Lone Ottesen	CMO
Victor Levitsky	CSO
Ingunn Munch Lindvig	VP Regulatory Affairs
Ola Melin	Head of Manufacturing
Øystein Soug	Special advisor and interim CFO

Board of Directors

As per 17 February 2022, the Board of Directors consists of seasoned professionals with a broad range of complementary competencies (from left): Per Samuelsson, Bente-Lill Romøren, Damian Marron (Chairperson), Eva-Lotta Allan, Sonia Quaratino, Johan Christenson, Robert Burns (absent), Diane Mellett (absent).

Financial review

Results fourth quarter 2022

Targovax raised gross proceeds of NOK 175 million in a rights issue in fourth quarter 2021 through the allocation of 101,744,186 new shares at a subscription price of NOK 1.72 per share. The rights issue was resolved by the Company's Board of Directors based on the authorization granted at the Company's Annual General Meeting held 25 November 2021.

Operating expenses amounted to NOK 26 million (NOK 23 million) in the fourth quarter. The operating expenses are reported net of governmental grants which amounted to NOK 1.5 million in the period (NOK 0.5 million). The net loss amounted to NOK 27 million in the fourth quarter 2021 (NOK 26 million).

Results full year 2021

In the full year 2021 Targovax had no core business revenue.

Operating expenses amounted to NOK 97 million (NOK 105 million) in the full year 2021. The operating expenses are reported net of governmental grants which amounted to NOK 3 million in the period (NOK 2 million). The net loss amounted to NOK 98 million in the full year 2021 (NOK 108 million).

Financial position and cash flow

Cash and cash equivalents were NOK 182 million at the end of 2021 compared to NOK 54 million at end of third quarter 2021 and NOK 71 million at the end of second quarter 2021.

Net cash flow from operating activities during the fourth quarter 2021 was negative by NOK 20 million compared to negative NOK 21 million in the fourth quarter 2020 and NOK 16 million in third quarter 2021.

By the end of the period, total outstanding interest-bearing debt amounted to EUR 7 million, all to Business Finland.

Share information

By 7 February 2022 there were 188,326,591 shares outstanding, distributed between 6,397 shareholders. The 20 largest shareholders controlled 42.3% of the shares.

During Q4 2021, Targovax shares traded in the NOK 1.89 – 5.09 range. During the quarter, approx. 101.6 million shares were traded, with an aggregate trading value of NOK 258 million. This included the Rights Issue completed in December 2021.

The closing price on 31 December 2021 was NOK 2.21 per share, corresponding to a market value of NOK 574 million.

The estimated share ownership on 7 February 2022:

	Estimated	
Shareholder	Shares million	Ownership
Avanza Bank AB (nom.)	16.7	8.9 %
HealthCap	12.4	6.6 %
FJARDE AP-FONDEN	8.7	4.6 %
ABN Amro Global (nom.)	6.0	3.2 %
Goldman Sachs & Co. LLC (nom.)	5.2	2.8 %
Nordea	4.5	2.4 %
RadForsk	4.4	2.4 %
Bækkelaget Holding	4.2	2.3 %
Danske Bank (nom.)	2.6	1.4 %
Thorendahl Invest	2.0	1.1 %
10 largest shareholders	**66.8**	**35.5 %**
Other shareholders (6 387)	121.5	64.5%
Total shareholders	**188.3**	**100.0 %**

Risks and uncertainties

The company's business is exposed to a number of general operational and financial risks which have been outlined in Targovax's annual report 2020 as well as in the last prospectus, both available at www.targovax.com. As earlier reported, the Targovax management is following the COVID-19 outbreak situation closely and is continuously monitoring whether any potential challenges arise. Currently there are no significant implications to our core operations due to the COVID-19 pandemic.

Outlook

During 2021, the company delivered strong efficacy data for the lead-product candidate ONCOS-102 in both melanoma and mesothelioma. Together with the broad immune activation data, Targovax is in an excellent position to design the next phase of the ONCOS-102 clinical development program. In parallel Targovax is expanding its pipeline efforts to establish ONCOS as a versatile delivery vector for next generation immunotherapies, including circRNA. In 2022, Targovax also expects to form one or more academic and/or commercial mutant KRAS collaborations which will bring the TG cancer vaccine back to the clinic.

Oslo, 16 February 2022

The Board of Directors of Targovax ASA

Damian Marron
Chairperson of the Board

Sonia Quaratino
Board Member

Eva-Lotta Allan
Board Member

Per Samuelsson
Board Member

Johan Christenson
Board Member

Diane Mellett
Board Member

Bente-Lill Romøren
Board Member

Robert Burns
Board Member

Erik Digman Wiklund
CEO

Fourth quarter results 2021

Condensed consolidated statement of profit or loss

Amounts in NOK thousands except per share data	*Note*	Unaudited 4Q 2021	Unaudited 4Q 2020	Unaudited FY 2021	Unaudited FY 2020
Other revenues		-	-		624
Total revenue		-	-		**624**
Research and development expenses	*3,4*	-9 785	-8 131	-37 440	-45 040
Payroll and related expenses	*5,11*	-13 256	-11 799	-48 386	-43 090
Other operating expenses	*3,4*	-2 140	-2 615	-8 466	-12 658
Depreciation, amortizations and write downs		-342	-327	-1 309	-3 735
Total operating expenses		**-25 523**	**-22 872**	**-95 601**	**-104 524**
Operating profit/ loss (-)		-25 523	-22 872	-95 601	-103 901
Finance income		2	-1 416	245	596
Finance expense		-1 131	-1 997	-2 667	-5 099
Net finance income/ expense (-)		**-1 129**	**-3 413**	-2 422	**-4 503**
Loss before income tax		**-26 652**	**-26 286**	**-98 023**	**-108 403**
Income tax income/ expense (-)		10	57	52	277
Loss for the period		**-26 641**	**-26 229**	**-97 971**	**-108 126**
Earnings/ loss (-) per share					
Basic and dilutive earnings/loss (-) per share	*10*	**-0.28**	**-0.28**	**-1.10**	**-1.40**

Consolidated statement of other comprehensive income/ loss (-), net of income tax

Amounts in NOK thousands	Unaudited 4Q 2021	Unaudited 4Q 2020	Unaudited FY 2021	FY 2020
Income/ loss (-) for the period	-26 641	-26 229	-97 971	-108 126
Items that may be reclassified to profit or loss:				
Exchange differences arising from the translation of foreign operations	-4 495	-16 576	-12 927	16 069
Total comprehensive income/ loss (-) for the period	**-31 136**	**-42 805**	**-110 898**	**-92 057**

Condensed consolidated statement of financial position

Amounts in NOK thousands	*Note*	Unaudited 31.12.2021	31.12.2020
ASSETS			
Intangible assets	*6*	371 727	389 646
Property, plant, and equipment		111	179
Right-of-use asset		2 544	3 734
Total non-current assets		**374 382**	**393 559**
Receivables		9 207	4 859
Cash and cash equivalents		181 682	122 321
Total current assets		**190 889**	**127 180**
TOTAL ASSETS		**565 271**	**520 740**

Amounts in NOK thousands	*Note*	Unaudited 31.12.2021	31.12.2020
EQUITY AND LIABILITIES			
Shareholders' equity			
Share capital	*9*	18 833	8 653
Share premium reserve		1 185 396	1 046 476
Other reserves		59 620	52 684
Retained earnings		-876 108	-778 136
Translation differences		29 985	42 912
Total equity		**417 726**	**372 588**
Non-current liabilities			
Interest-bearing liabilities	*7*	49 523	57 881
Deferred tax		59 314	62 047
Lease liabilities		1 375	2 568
Total non-current liabilities		**110 212**	**122 495**
Current liabilities			
Interest-bearing liabilities	*7*	7 543	3 185
Short-term lease liabilities		1 349	1 258
Trade payables		8 103	5 196
Accrued public charges		3 203	3 428
Other current liabilities		17 134	12 589
Total current liabilities		**37 333**	**25 656**
TOTAL EQUITY AND LIABILITY		**565 271**	**520 740**

Condensed consolidated statement of changes in equity

Amounts in NOK thousands	*Note*	Share capital	Share premium	Other reserves	Translation differences	Retained earnings (Accumulated losses)	Total equity
Balance at 31 December 2019		**6 338**	**886 899**	**46 885**	**26 843**	**-670 010**	**296 955**
Loss for the period		-	-	-	-	-108 126	-108 126
Exchange differences arising from the translation of foreign operations		-	-	-	16 069	-	16 069
Other comprehensive income/loss, net of tax		-	-	-	-	-	-
Total comprehensive income for the period		**-**	**-**	**-**	**16 069**	**-108 126**	**-92 057**
Issue of ordinary shares - Capital increase - Private Placement & Subsequent offering	*9*	2 297	173 724	-	-	-	176 021
Transaction costs - Private Placement & Subsequent offering		-	-14 164	-	-	-	-14 164
Share issuance, employee share options & RSU's	*9*	18	82	-	-	-	99
Transaction costs – share issuance employee share options & RSU's		-	-65	-	-	-	-65
Recognition of share-based payments & RSU's	*11*	-	-	5 799	-	-	5 799
Balance at 31 December 2020		**8 653**	**1 046 476**	**52 684**	**42 912**	**-778 136**	**372 588**
Loss for the period		-	-	-	-	-97 971	-97 971
Exchange differences arising from the translation of foreign operations		-	-	-	-12 927	- --	-12 927
Other comprehensive income/loss, net of tax		-	-	-	-	- -	-
Total comprehensive income for the period		**-**	**-**	**-**	**-12 927**	**-97 971**	**-110 898**
Issue of ordinary shares - Capital increase – Rights issue	*9*	10 174	164 826	-	-	-	175 000
Transaction costs – Rights issue		-	-26 040	-	-	-	-26 040
Share issuance, employee share options & RSU's	9	5	195	-	-	-	200
Transaction costs – share issuance employee share options & RSU's		-	-59	-	-	-	-59
Recognition of share-based payments & RSU's	*11*	-	-	6 935	-	-	6 935
Balance at 31 December 2021		**18 833**	**1 185 396**	**59 620**	**29 985**	**-876 108**	**417 726**

Condensed consolidated statement of cash flow

Amounts in NOK thousands	*Note*	Unaudited 4Q 2021	Unaudited 4Q 2020	Unaudited FY 2021	FY 2020
Cash flow from operating activities					
Loss before income tax		-26 652	-26 286	-98 023	-108 403
Adjustments for:					
Finance income		-2	1 416	-245	-596
Finance expense		1 131	1 997	2 667	5 099
Interest received		2	245	245	596
Other finance income/expense		4	39	46	-364
Share option & RSU expense	*11*	1 600	1 464	6 935	5 799
Depreciation, amortizations and write downs		342	327	1 309	3 735
Change in receivables		-1 887	9 088	-4 348	10 569
Change in other current liabilities		5 814	-9 462	6 012	-27 229
Net cash flow from/(used in) operating activities		**-19 648**	**-21 172**	**-85 402**	**-110 793**
Cash flow from investing activities					
Purchases of property, plant, and equipment (PPE)		-	-70	-	-70
Net cash received from/(paid in) investing activities		**-**	**-70**	**-**	**-70**
Cash flow from financing activities					
Proceeds from borrowings		-	-		5 555
Repayment of borrowings		-2 023	-	-2 023	-
Repayment of lease liabilities		-366	-368	-1 468	-3 209
Interest paid	*7*	-292	-286	-710	-704
Proceeds from issuing shares -Rights issue, Private Placement and repair offering		175 000	75 000	175 000	176 021
Payment for share issue cost -Rights issue, Private Placement and repair offering		-25 329	-6 279	-25 329	-14 164
Proceeds from exercise of share options & RSUs		-	83	200	99
Payment for share issue cost – share options & RSUs		66	-48	-59	-65
Net cash generated from/(paid in) financing activities		**147 056**	**68 102**	**145 610**	**163 534**
Net increase/(decrease) in cash and cash equivalents		**127 409**	**46 860**	**60 208**	**52 671**
Net exchange gain/loss on cash and cash equivalents		209	-2 195	-848	-778
Cash and cash equivalents at beginning of period		**54 064**	**77 657**	**122 321**	**70 429**
Cash and cash equivalents at end of period		**181 682**	**122 321**	**181 682**	**122 321**

Notes

1. General information

Targovax ASA ("the Company") and its subsidiaries (together the Group) is a clinical stage immuno-oncology company developing oncolytic viruses to target hard-to-treat solid tumors. Immuno-oncology is currently one of the fastest growing therapeutic fields in medicine.

Targovax's lead clinical candidate, ONCOS-102, is a genetically modified oncolytic adenovirus, which has been engineered to selectively infect and replicate in cancer cells.

The Company is a limited public liability company incorporated and domiciled in Norway and listed on the Oslo Stock Exchange in Norway. The address of the registered office is Vollsveien 19, 1366 Lysaker, Norway.

The condensed interim financial information is unaudited. These financial statements were approved for issue by the Board of Directors on 16 February 2022.

2. Accounting principles

The interim condensed consolidated financial statements for the Group are prepared using the same accounting principles and calculation methods as used for the statutory, annual financial statements 2021 for Targovax ASA.

The accounting principles used have been consistently applied in all periods presented, unless otherwise stated.

Amounts are in thousand Norwegian kroner unless stated otherwise. The Groups presentation currency is NOK (Norwegian kroner). This is also the parent company's functional currency.

2.1 Basis of preparation

The quarterly financial statements of the Group have been prepared in accordance with IAS 34 Interim Financial Reporting, as adopted by the EU.

2.2 Standards and interpretations in issue but not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2021 reporting period and have not been early adopted by the Group. These new standards and interpretations are assessed to be of no material impact for the Group in 2021.

2.3 Basis of consolidation

The consolidated financial statements comprise the financial statements of the Company and its subsidiaries. As at 31 December 2021, Targovax OY, located in Espoo, Finland is 100% owned and controlled subsidiary.

3. Research and development expenses

The Group is developing new products. Uncertainties related to the regulatory approval process and results from ongoing clinical trials generally indicate that the criteria for asset recognition is not met until the time when marketing authorization is obtained from relevant regulatory authorities.

The following research and development expenditures have been expensed:

	4Q 2021		4Q 2020		FY 2021		FY 2020	
Amounts in NOK thousands	Total	of which R&D	Total	of which R&D	Total	of which R&D	Total	of which R&D
R&D expenses	9 785	9 785	8 131	8 131	37 440	37 440	45 040	45 040
Payroll and related expenses	13 256	5 675	11 799	5 977	48 386	22 898	43 090	22 101
Other operating expenses	2 140	25	2 615	-	8 466	40	12 658	26
Depreciation, amortizations and write downs	342	-	327	-	1 309	-	3 735	-
Total operating expenses	**25 523**	**15 485**	**22 872**	**14 108**	**95 601**	**60 377**	**104 524**	**67 168**

4. Government grants

Government grants have been recognized in profit or loss as a reduction of the related expense with the following amounts:

Amounts in NOK thousands	4Q 2021	4Q 2020	FY 2021	FY 2020
R&D expenses	1 412	483	2 888	1 943
Payroll and related expenses	91	58	374	292
Other operating expenses	1	-	1	1
Total grants	**1 504**	**541**	**3 263**	**2 236**

R&D projects have been approved for SkatteFUNN through 2022. For the fourth quarter 2021, the Group has recognized NOK 1.4 million and NOK 0.1 million as cost reduction in Research and development expenses and Payroll and related expenses respectively.

Targovax has been awarded a NOK 9.8 million research grant from the Research Council of Norway towards product and clinical development for the TG mutant KRAS cancer vaccine program. This grant is for the period 2022-2025, hence no cost reduction has been recognized in 2021.

See note 8 Government grants in the Annual Report 2021 and note 12 subsequent events for more information about grants.

5. Payroll and related expenses

Total payroll and related expenses for the Group are:

Amounts in NOK thousands	4Q 2021	4Q 2020	FY 2021	FY 2020
Salaries and bonus	9 636	8 478	33 885	31 123
Employer's national insurance contributions	1 150	1 467	3 788	4 273
Share-based compensation [1)]	1 600	1 464	6 935	5 799
Pension expenses – defined contribution plan	731	299	2 200	1 613
Restructuring costs [2)]				-150
Other	229	149	1 952	724
Governmental grants	-91	-58	-374	-292
Total payroll and related expenses	**13 256**	**11 799**	**48 386**	**43 090**

1) Share-based compensation has no cash effect.

2) Following the decision in 2019 to fully focus on the ONCOS platform, the number of employees has been reduced. The total provision for restructuring costs of NOK 5.4 million per 31 December 2019 was reduced by NOK 0,15 million as per 30 September 2020.

	31.12.2021	31.12.2020
Number of employees calculated on a full-time basis as at end of period	21,8	19,6
Number of employees as at end of period	22	20

6. Intangible assets

As of 31 December 2021, the recognized intangible assets in the Group amounts to NOK 372 million. This is a decrease from NOK 390 million as of 31 December 2020, due to NOK/EUR foreign exchange fluctuations. The intangible assets are derived from the acquisition of Oncos Therapeutics OY, which was completed in July 2015 and related to the development of ONCOS-102.

Intangible assets are tested for impairment at least annually, or when there are indications of impairment.

The impairment test is based on an approach of discounted cash flows. The valuation is sensitive to several assumptions and uncertainties, and the result from the valuation is thus limited to ensure sufficient certainty for the recognized amount in the financial statement and should not be considered as a complete valuation of the full potential of ONCOS-102.

For more information see Note 15 Intangible assets and impairment test in the 2021 Annual Report.

7. Interest bearing debt

Business Finland is a publicly financed funding agency that finances research and development activities for young innovative companies in Finland.

The Group has received three R&D loans, for the commercialization of ONCOS-102 from Business Finland under loan agreements dated September 2010, February 2012 and December 2013, respectively, in the total outstanding amount of NOK 62.3 million (EUR 6.3 million) as of 31 December 2019. The Group received an additional NOK 5.6 million (EUR 0.6 million) to one of the existing loans from Business Finland during the first quarter of 2020, hence total loan received as per 31 December 2021 is NOK 68.6 million (EUR 6.9 million). This first installment on one of the loans was due in 3rd quarter 2021, hence the outstanding amount as per 31.12.2021 is EUR 6.7 million. The loan's interest rate is assessed to be 7% lower than comparable market rates, hence NOK 1.4 million was recognized as a government grant recorded as a reduction to Research and development expenses in first quarter 2020.

NOK 7.5 million (EUR 0.8 million) of the total debt NOK 66.6 million (EUR 6.7 million) was classified as a short-term loan as per 31 December 2021. The Group will apply for an extension of the repayment-free period on the loan agreement dated December 2013.

Amortized interests are charged to financial expenses, amounting to NOK 2.8 million for the full year of 2021, and NOK 4.3 million during full year 2020.

No new Business Finland loans have been awarded during the first nine months of 2021.

The table below shows a reconciliation of the opening balances for the liabilities arising from financing activities:

Changes in liabilities arising from financing activities *(Amounts in NOK thousands)*	Interest-bearing liabilities Business Finland loans
Interest-bearing liabilities 1 January 2020	**50 441**
Cash flow from financing activities	-
Exchange differences	2 745
Additions to existing loans	5 555
Change to loan repayment schedules	-
Other transactions without cash settlement	2 325
Interest-bearing liabilities 31 December 2020	**61 066**
Cash flow from financing activities	-2 057
Exchange differences	-2 801
Additions to existing loans	-
Change to loan repayment schedules	-1 903
Other transactions without cash settlement	2 760
Interest-bearing liabilities 31 December 2021	**57 066**

See note 21 Interest-bearing debt in the Annual Report 2021 for more information about the Business Finland loans.

8. Fair value of financial instruments

The carrying value of receivables, cash and cash equivalents, borrowings and other short-term payables are assessed to approximate fair value.

	FY 2021		FY 2020	
Amounts in NOK thousands	Carrying amounts	Fair value	Carrying amounts	Fair value
Receivables	9 207	9 207	4 859	4 859
Cash and cash equivalents	181 682	181 682	122 321	122 321
Total financial assets	**190 889**	**190 889**	**127 180**	**127 180**
Interest-bearing borrowings	57 066	57 066	61 066	61 066
Lease liabilities	2 725	2 725	3 826	3 826
Trade payables	8 103	8 103	5 196	5 196
Total financial liabilities	**67 894**	**67 894**	**70 087**	**70 087**

The tables below analyze financial instruments carried at fair value, by valuation method. The different levels have been defined as follows:

- **Level 1:** Quoted prices (unadjusted) in active markets for identical assets or liabilities
- **Level 2:** Inputs other than quoted prices including Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices)
- **Level 3:** Inputs in asset or liability that are not based on observable market data (that is, unobservable inputs)

As at 31 December 2021:

Amounts in NOK thousands	Level 1	Level 2	Level 3	Total
Interest-bearing borrowings	-	-	57 066	57 066
Total financial instruments at fair value	**-**	**-**	**57 066**	**57 066**

As at 31 December 2020:

Amounts in NOK thousands	Level 1	Level 2	Level 3	Total
Interest-bearing borrowings	-	-	61 066	61 066
Total financial instruments at fair value	**-**	**-**	**61 066**	**61 066**

9. Share capital and number of shares

The Company's Board of Directors has in full year 2021, in accordance with the authorization granted by the general meeting in March 2021, resolved to increase the share capital with NOK 5,108.70 by the issuance of 51,087 new shares, each with a par value of NOK 0.10 in order to facilitate the exercise of share options and RSUs. 29 788 share options and 21,299 RSUs were exercised at a subscription price of NOK 0.1 per share.

Targovax raised gross proceeds of NOK 175 million in a rights issue in fourth quarter 2021 through the allocation of 101,744,186 new shares at a subscription price of NOK 1.72 per share. The rights issue was resolved by the Company's Board of Directors based on the authorization granted at the Company's Annual General Meeting held 25 November 2021.

Targovax raised gross proceeds of NOK 101 million in a private placement in first quarter 2020 through the allocation of 12,627,684 new shares at a subscription price of NOK 8.0 per share. In October 2020, Targovax successfully completed a private placement, raising gross proceeds of approximately NOK 75 million, through the allocation of 10,344,828 new shares at a subscription price of NOK 7.25 per share. The private placements and the issuance of the new shares was resolved by the Company's Board of Directors based on the authorization granted at the Company's Annual General Meeting held on 30 April 2019 and 29 April 2020.

The share capital as of 31 December 2021 is 18 832 659,10 (31 December 2020: 8 653 131.80) comprising 188 326 591 ordinary shares at nominal value NOK 0.10 (31 December 2020: 86 531 318 at NOK 0.10). All shares carry equal voting rights.

The movement in the number of shares during the period was as follows:

	4Q 2021	4Q 2020	FY 2021	FY 2020
Ordinary shares at beginning of period	86 582 405	76 175 764	86 531 318	63 383 613
Share issuance – Rights Issue, Private placement and repair offering	101 744 186	10 344 828	101 773 974	22 972 512
Share issuance, employee share options and RSUs	-	10 726	51 087	175 193
Ordinary shares at end of period	**188 326 591**	**86 531 318**	**188 326 591**	**86 531 318**

The 20 largest shareholders are as follows at 31 December 2021:

Shareholder	# shares	%
Avanza Bank AB	19 814 638	10.5 %
HealthCap	12 405 584	6.6 %
Fjärde AP-fonden	8 700 456	4.6 %
Nordnet Bank AB	6 297 113	3.3 %
ABN AMRO Global Custody Services N	5 323 904	2.8 %
Goldman Sachs & Co. LLC	5 186 162	2.8 %
Radiumhospitalets Forskningsstiftelse	4 427 255	2.4 %
Nordnet Livsforsikring AS	4 244 392	2.3 %
Danske Bank AS	2 819 768	1.5 %
MP Pensjon PK	2 517 055	1.3 %
Nordnet Livsforsikring AS	2 382 495	1.3 %
Thorendahl Invest AS	2 000 000	1.1 %
VPF Nordea Kapital	1 748 448	0.9 %
Sivilingenør Jon-Arild Andreassen AS	1 700 000	0.9 %
VPF Nordea Avkastning	1 649 274	0.9 %
Tor Westerheim	1 300 057	0.7 %
J.P. Morgan Bank Luxembourg S.A.	1 252 575	0.7 %
Egil Pettersen	1 243 057	0.7 %
Arild Staxwold Skipperud	1 186 375	0.6 %
Verdipapirfondet Nordea Norge Plus	1 076 603	0.6 %
20 largest shareholders	**87 275 211**	**46.3 %**
Other shareholders (6 346)	101 051 380	53.7 %
Total shareholders	**188 326 591**	**100.0 %**

Shareholdings key management

The following table provides the total number of shares owned by the key management of the Group and member of the Board of Directors, including close associates, as of 31 December 2021:

Name	Position	No. of shares outstanding at 31 Dec. 2021
Key management:		
Erik Digman Wiklund[1)]	Chief Executive Officer	100 000
Øystein Soug[2)]	Special advisor and interim CFO	320 000
Ola Melin	Head of Manufacturing	50 000
Lone Ottesen	Chief Development Officer	47 000
Magnus Jäderberg	Chief Medical Officer	20 000
Ingunn Munch Lindvig	VP, Regulatory Affairs	10 000
Victor Levitsky	Chief Scientific Officer	10 000
Total no. of shares owned by key management of the Group		**557 000**
Board of Directors:		
Robert Burns	Board member	187 103
Eva-Lotta Coulter	Board member	71 368
Diane Mellett	Board member	96 029
Bente-Lill Romøren	Board member	35 577
Total no. of shares owned by the Board of Directors of the Group		**390 077**

1) The shares are held through Digman AS
2) The shares are held through Abakus Invest AS.
Other holdings of shares in the company related to the Board of Directors:
Johan Christenson and Per Samuelsson, both Members of the Board, are partners at HealthCap.

10. Earnings per share

Amounts in NOK thousand	4Q 2021	4Q 2020	FY 2021	FY 2020
Loss for the period	-26 641	-26 229	-97 971	-108 126
Average number of outstanding shares during the period	96 536	94 404	89 076	77 106
Earnings/ loss (-) per share - basic and diluted	**-0.28**	**-0.28**	**-1.10**	**-1.40**

Share options issued have a potential dilutive effect on earnings per share. No dilutive effect has been recognized as potential ordinary shares only shall be treated as dilutive if their conversion to ordinary shares would decrease earnings per share or increase loss per share from continuing operations. As the Group is currently loss-making, an increase in the average number of shares would have anti-dilutive effects.

11. Share-based compensation

Share options

The Group operates an equity-settled, share-based compensation plan, under which the entity receives services from employees as consideration for equity instruments (options) in Targovax ASA.

At the Annual General Meeting (AGM) in March 2021 the Board of Directors was authorized to increase the Group's share capital in connection with share incentive arrangements by up to the lower of (a) NOK 1 250 000 and (b) 10% of the Company's outstanding shares, options and RSU's. This authorization replaces the previous authorizations to increase the share capital by up to the lower of NOK 1 000,000 and b) 10% of the Company's outstanding shares, options and RSUs given to the Board of Directors at the AGM held in April 2020.

On the basis of the approval by the AGM the Board of Directors resolved to issue new options to employees of the Company. In 2021 a total of 1 435 000 options for shares in the Company have been distributed amongst the current members of the key management and a total of 790 000 options for shares in the Company have been distributed amongst other employees. In 2020 a total of 1 625 000 options for shares in the Company have been distributed amongst the current members of the key management and a total of 710 000 options for shares in the Company have been distributed amongst other employees Each option, when exercised, will give the right to acquire one share in the Company. The options are granted without consideration

Pursuant to the general vesting schedule, 25% of the options will vest 12 months after the day of grant (as long as the option holder is still employed). Thereafter, 1/36 of the remaining options will vest each month (as long as the option holder is still employed), with the first 1/36 vesting 13 months after the day of grant. The exercise price is equal to the volume weighted average trading price of the shares of the Company on Oslo Stock Exchange on the date of the grant. Options that have not been exercised will lapse 7 years after the date of grant.

The amount of expensed share options in fourth quarter and full year 2021 was NOK 1.3 million and NOK 5.8 million. For the same period in 2020 it was NOK 1.3 million and NOK 4.9 million.

Fair value of the options has been calculated at grant date. The fair value of the options was calculated using the Black-Scholes model. The expected volatility for options issued in 2021 and 2020 is estimated at average of 75,82% and 76.06% based on the volatility of comparable listed companies. The volume weighted average interest rate applied to the share options grants in 2021 and 2020 is 1.33% and 0.42%.

The following table shows the changes in outstanding share options in 2021 and 2020:

	FY 2021		FY 2020	
	No. of options	Weighted avg. exercise price (NOK)	No. of options	Weighted avg. exercise price (NOK)
Outstanding at 1 January	7 310 067	12.94	6 028 642	15.26
Granted during the period	2 225 000	4.59	2 335 000	9.94
Exercised during the period	-29 788	6.64	-10 726	7.74
Forfeited during the period	-1 124 017	8.70	-243 230	7.37
Expired during the period	-638 156	19.83	-799 619	23.41
Outstanding no. of share options at end of period	**7 743 106**	**10,13**	**7 310 067**	**12,94**

The following table shows the exercised, expired, granted and outstanding options for shares to Key Management of the Group at 31 December 2021:

Name	Position	Outstanding 31.12.2020	Granted FY 2021	Exercised FY 2021	Expired FY 2021	Outstanding 31.12.2021
Key management						
Øystein Soug	Special advisor and interim	1 310 000		-	-	1 310 000
Erik Digman Wiklund[2)]	Chief Executive Officer	750 000	450 000	-	-	1 200 000
Magnus Jäderberg	Chief Medical Officer	1080 000		-	-133 265	946 735
Victor Levitsky	Chief Scientific Officer	500 000	45 000	-	-	545 000
Lone Ottesen	Chief Development Officer	-	490 000	-	-	490 000
Ingunn Munch Lindvig	VP Regulatory Affairs	267 000	125 000	-	-	392 000
Ola Melin	Head of Manufacturing	-	325 000	-	-	325 000
Total option for shares to key management of the Group		**3 907 000**	**1 435 000**	**-**	**-133 265**	**5 208 735**
Board of Directors:						
Robert Burns	Board member	21 235		-	-	21 235
Total option for shares to the Board of Directors of the Group		**21 235**		**-**	**-**	**21 235**

From 1 January 2022 to 16 February 2022, no new options for shares have been granted Key Management of the Group. 115 000 options for shares were granted to other employees, please see Note 12.

Restricted Stock Units

The Board of Directors may choose to receive their remuneration, or parts thereof, in the form of restricted stock units (RSUs). If the Board members choose to receive the Board remuneration in RSUs they must choose to either (i) receive 100% of the compensation in RSUs, (ii) receive 1/3 of the compensation in cash and 2/3 in RUs, or (iii) receive 2/3 of the compensation in cash and 1/3 in RSUs.

The number of RSUs to be granted to the members of the Board of Directors is calculated as the NOK amount of the RSU opted portion of total compensation to the Board member, divided by the market price of the Targovax ASA share. The market price is calculated as the volume weighted average share price the 10 trading days prior to the grant date. The RSUs will be non-transferrable and each RSU will give the right and obligation to acquire shares in Targovax ASA (at nominal value) subject to satisfaction of the applicable vesting conditions. When the RSUs have vested, the participant must during the following three-year period select when to take delivery of the shares.

The AGM 17 March 2021 decided to remunerate the Board of Directors for the period between the AGM 2021 to the AGM 2022 with a combination of cash and Restricted Stock Units (RSUs), hence at the 17 March 2021, additional 121 752 RSU's were granted to the Board of Directors.

The AGM 29 April 2020 decided to remunerate the Board of Directors for the period between the AGM 2020 to the AGM 2021 with a combination of cash and RSUs, hence at the 29 April 2020, additional 95 491 RSU's were granted to the Board of Directors.

The expensed RSUs in fourth quarter and full year 2021 were NOK 0,3 million and NOK 1,1 million. For the same periods in 2020 expensed RSUs were NOK 0,2 million and NOK 0,9 million. A total of 299 537 RSUs were outstanding on 31 December 2021.

The following table shows the changes in outstanding RSUs in 2021 and 2020:

	FY 2021		FY 2020	
	No. of options	Weighted avg. exercise price (NOK)	No. of options	Weighted avg. exercise price (NOK)
Outstanding at 1 January	199 084	0.10	268 060	0.10
Granted during the period	121 752	0.10	95 491	0.10
Exercised during the period	-21 299	0.10	-164 467	0.10
Forfeited during the period	-	-	-	-
Expired during the period	-	-	-	-
Outstanding no. of RSUs at end of period	**299 537**	**0.10**	**199 084**	**0.10**

The following table shows the exercised, granted and outstanding RSUs to Board of Directors of the Group at 31 December 2021:

		Outstanding 31.12.2020	Granted FY 2021	Exercised FY 2021	Outstanding 31.12.2021
Board of Directors:					
Damian Marron	Chair of the Board	24 485	19 503		43 988
Robert Burns	Board member	88 351	34 083		122 434
Bente-Lill Romøren	Board member	15 250	11 361	-15 250	11 361
Diane Mellett	Board member	35 499	22 722		58 221
Eva-Lotta Allan	Board member	29 450	11 361		40 811
Sonia Quaratino	Board member	-	22 722		22 722
Catherine A. Wheeler	Board member (former)	6 049	-	-6 049	-
Total Restricted Stock Units to Board of Directors of the Group		**199 084**	**121 752**	**-21 299**	**299 537**

From 1 January 2022 to 16 February 2022 no RSUs have been granted to the Board of Directors

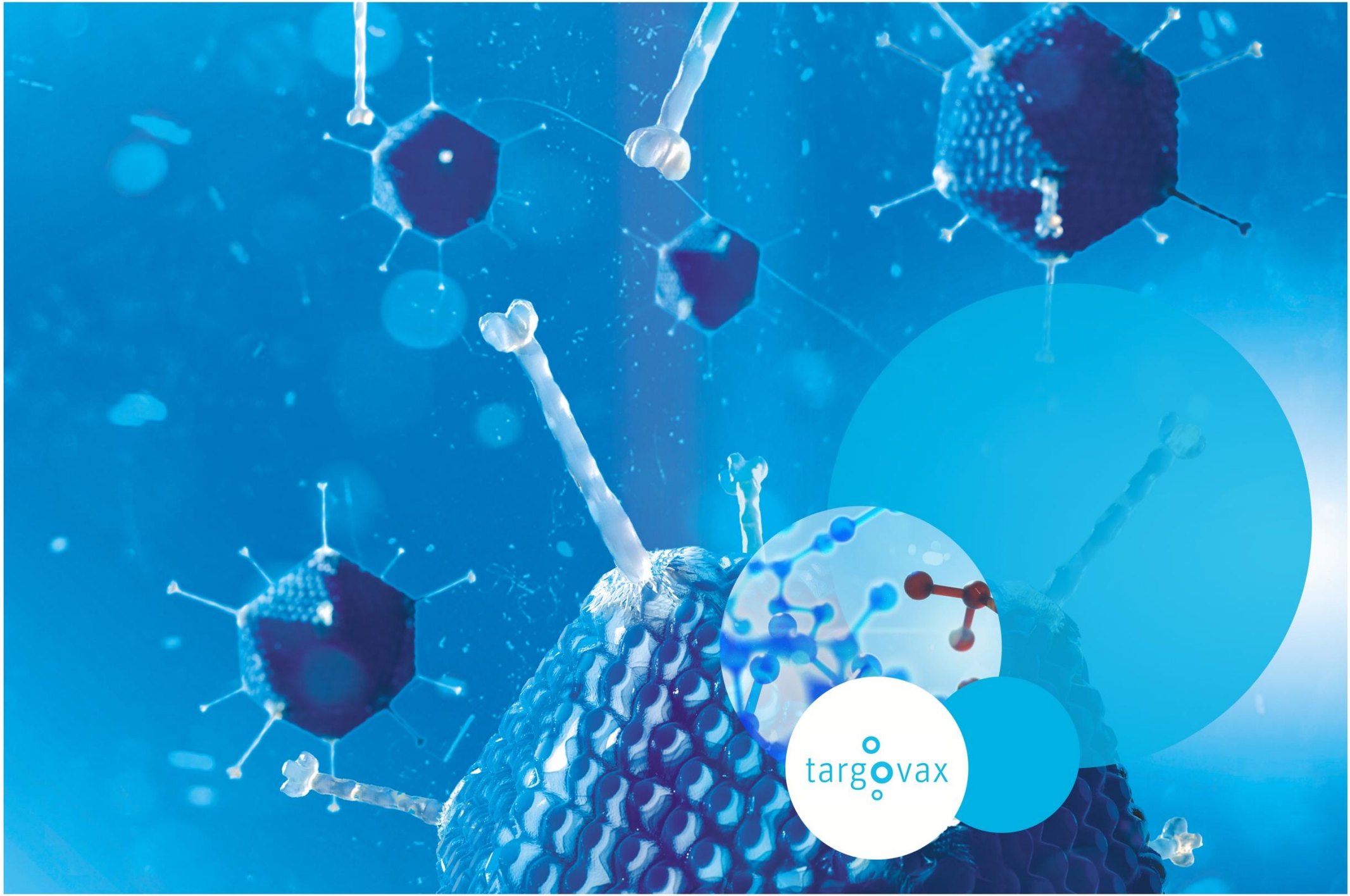
12. Subsequent events

- In January 2022, received NOK 8.2m grant award by Innovation Norway towards the TG mutant KRAS vaccine program
- In January 2022, received patents for ONCOS-102 in combination with chemotherapy in China and Japan
- In February 2022, announced a research collaboration with Prof. Michael Uhlin at Karolinska Institutet in Stockholm, Sweden

Share options

From 1 January 2022 to 16 February 2022, no new options for shares have been granted Key Management of the Group. However,64 590 options for shares were forfeited and 115 000 new options for shares have been granted to other employees of the Group:

	1 January – 16 February 2022		FY 2021	
	No. of options	Weighted avg. exercise price (NOK)	No. of options	Weighted avg. exercise price (NOK)
Outstanding at beginning of period	7 743 106	10.13	7 310 067	12.94
Granted during the period	115 000	2.21	2 225 000	4.59
Exercised during the period			-29 788	6.64
Forfeited during the period	-64 590	**8,37**	-1 124 017	8.70
Expired during the period			-638 156	19.83
Outstanding no. of share options at end of	**7 793 516**	**10.03**	**7 743 106**	**10.13**


targovax