



**Developing
breakthrough
AXL therapeutics
to improve
patients' lives**

**Annual Report
& Accounts
2021**



Highlights 2021

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OUR VISION: BerGenBio (OSE:BGBIO) is a clinical stage biopharmaceutical company developing innovative drugs for aggressive diseases including cancer and severe respiratory infections



Chair's Statement

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“I have been impressed with the depth of knowledge and expertise at all levels of the Company.”

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Dear Shareholders

It is my great pleasure to deliver my first annual update to shareholders as Chairman of BerGenBio. I'm very excited and pleased to have joined the Company at such a pivotal time in our development. I would like to take this opportunity to extend my gratitude to my predecessor Sveinung Hole for his service as Chairman since 2019. I look forward to working alongside Sveinung as he continues his role on the Board.

My own background comprises over 35 years of senior roles in the life-sciences industry, spanning from large pharmaceutical and small/mid-size biotech companies where I was responsible

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for global development and commercialization of several different products mainly within speciality care. During my career, I have been fortunate to have worked with several virology and oncology products and to have led the successful launch of the Bristol Myers Squibbs immuno-oncology portfolio in several countries around the world.

This experience, gained over a long career, led me to recognize the great potential and opportunity offered by BerGenBio's strategy of utilizing selective inhibitors of the tyrosine kinase target AXL as a potential therapies in oncology and infectious diseases.

The biology of AXL itself is intriguing, with a growing body of published research demonstrating the important role it can play in several diseases: promoting immune evasion, drug resistance and the spread of cancer cells, and in immune cells where it suppresses tumor recognition and cell-killing.

Crucially, AXL does not mutate, and selectively blocking its activity represents a novel and credible approach to interfere with the survival mechanisms utilized by cancer and infectious diseases, thus holding the promise to improve the efficacy of chemotherapy, targeted therapies and immuno-oncology drugs.

BerGenBio pioneered the research and development of AXL as a potential target, and during my brief time here I have been impressed with the depth of knowledge and expertise at all levels of the Company. In addition to extensive research conducted in-house and with academic partners, we have gained clinical experience in over 600 patients dosed with our lead candidate bemcentinib, which has been shown to be safe and well tolerated across a broad patient population in several indications. The acquired understanding provides a strong basis for optimizing our ongoing and future clinical trial programs and to help us to forge a long-term vision for the Company.

Under the leadership of CEO Martin Olin, I believe we now have a clear strategy in place to achieve our vision and to maximize the potential of bemcentinib by focusing our efforts on highly specific patient populations underserved by current treatments within oncology and respiratory infections.

Areas of focus within oncology include Non-Small Cell Lung Cancer (NSCLC) patients harboring STK11 mutations and potentially patients with relapsed Adult Myeloid Leukemia (AML). Within respiratory infections, we are encouraged by bemcentinib's potential as an antiviral agent, particularly in severe respiratory infections, as evidenced by encouraging data from recent phase II trials undertaken in COVID-19.

Further details on the specific steps we will be undertaking to progress bemcentinib's development in these areas is outlined elsewhere in this report. I have full confidence in the ability of our senior management and staff to execute this strategy and deliver on the potential of our pipeline.

I am optimistic about the future prospects of our company and our ability to continue building BerGenBio, creating value for our shareholders while conducting our business in line with our responsibilities as a good corporate citizen. On behalf of the Board, I would like to extend my appreciation to all of our staff, shareholders and partners for their continued support as we continue to work to realize our vision to help patients suffering from aggressive diseases.



Anders Tullgren
Chair of the Board of Directors



Chief Executive's Statement

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Dear Shareholders

BerGenBio's focus throughout 2021 has been the continued development of our lead candidate, bemcentinib, a potentially first-in-class selective AXL inhibitor currently undergoing Phase II clinical trials in NSCLC, AML and COVID-19. Since taking up my role as CEO of the Company in September, I have been working with the board and senior management team to refine our strategic priorities to optimize the development pathway for this promising candidate.

By the end of 2021 we have treated more than 600 patients and accumulated a valuable understanding of the indications and patient subgroups which appear most likely to benefit from bemcentinib treatment. Accordingly, we will prioritize the clinical development of bemcentinib within NSCLC and severe respiratory infections.

Firstly, in NSCLC, the largest oncology indication, mutations in STK11 (up to 20% of NSCLC) has been shown to confer to poor prognosis and limited response to treatment with anti-PD1/PD-L1 therapies. Currently there are no effective therapies specifically directed toward this large, identifiable sub-group of NSCLC patients.

Encouragingly, preclinical data suggest that bemcentinib restores sensitivity to anti-PD1/L1 immune checkpoint therapies in the presence of STK11 mutations and STK11 mutated patients in our BGBC008 trial showed encouraging clinical benefit from the combination of bemcentinib/anti-PD1 treatment.

The importance of this sub-population is being increasingly acknowledged, and in November we were pleased to receive FDA Fast Track designation for bemcentinib in combination with an anti-PD-(L)1 agent as a treatment for patients with STK11 altered advanced/metastatic NSCLC without actionable mutations.

In the pursuit of this significant opportunity, we look to aggressively advance our research and clinical activities while also evaluating partnering opportunities to further expand our work in this promising area.

Secondly, we are investigating bemcentinib as a potential therapy for the treatment of severe respiratory infections, initially within COVID-19. To this end, at the beginning of 2022 we were pleased to announce our participation in the EUSolidAct trial, part of the pan-European COVID-19 research project EU-RESPONSE. As part of this Phase II adaptive, multicenter trial, bemcentinib will be studied in up to 500 hospitalized COVID-19 patients. This provides a unique opportunity to validate the findings of previous studies, at a substantially reduced cost to the company.

As with regards to AML, despite recent approvals of additional 1st line AML treatments, we continue to see a clear unmet medical need for 2 line AML patients who are unable to tolerate intensive chemotherapy. Bemcentinib has shown promising early clinical data in relapsed AML patients in our Phase II (BGBC003) AML trial and data from this trial continues to mature. When a mature dataset and regulatory feedback are available, we will determine next steps in this indication.

I would like to give my thanks to the Shareholders, our Board, our partners and academic collaborators, for their ongoing support. We have strengthened our Board, and with the appointment of Anders Tullgren we have a Chairman with extensive experience in overseeing the development of innovate drug pipelines, which will no doubt prove hugely valuable to us as we progress. I would like to thank Sveinung Hole for his strategic advice and expertise – particularly during my first few months at the Company, and who will remain a vital member of the Board.

The Board and management team share the vision of translating the expertise and understanding gained by BerGenBio around AXL inhibition into clear next steps for our company. With a solid cash position, we will continue to work hard to deliver on this vision in the coming year and beyond.

While our strategy and plans are anchored in a strong scientific rationale supported by preclinical and clinical data the successful execution of it is only possible with the right talent and experience – represented by all our employees. I would like to use this opportunity to thank all employees for their valuable contribution and commitment to make a difference for patients in need of better treatment options.



Martin Olin
Chief Executive Officer



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Strategic Report

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Our unique position

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We have successfully translated our world-leading research on AXL's biological role into two proprietary first-in-class clinical development candidates: the highly selective, oral small molecule AXL inhibitor bemcentinib, and the novel, anti-AXL therapeutic antibody tilvestamab. We believe our clinical development candidates are well-positioned to become potential treatment modalities for aggressive diseases.

BERGENBIO'S UNIQUE POSITION AND APPROACH IN THE BIOTECHNOLOGY FIELD WORLD-LEADING EXPERTISE ON AXL INHIBITORS AND THEIR THERAPEUTIC APPLICATIONS

Our business model

BerGenBio is the only company solely focused on exploiting the potential of AXL inhibition for therapeutic purposes, providing it with a unique competitive position in the biopharmaceutical industry.

BerGenBio has built the world's-leading understanding of the tyrosine kinase target AXL. First identified as a promising cancer target, BerGenBio has also explored and validated the significant role that AXL plays as a driver of hematological and solid cancers, and severe respiratory infections. BerGenBio is uniquely positioned to explore potential clinical applications of its selective AXL inhibitors bemcentinib and tilvestamab as potential treatments for several life-threatening conditions.

BerGenBio is currently developing two potentially first-in-class selective AXL inhibitors: bemcentinib, a small molecule AXL inhibitor currently in several Phase II trials and tilvestamab, a selective monoclonal antibody directed at the AXL receptor, currently in a Phase Ib trial.

BerGenBio has established a network of prestigious collaborators and uses advanced technologies to enable the exploration of multiple potential applications of its AXL inhibitors.

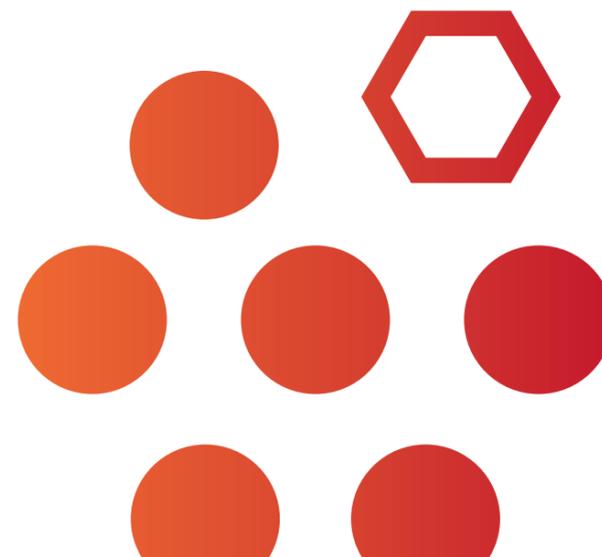
BerGenBio has studied its product candidates across a number of clinical trials to inform its development plans, in both company-sponsored trials and in partnership with some of the leading academic centers in the US and Europe in Investigator Sponsored Trials (ISTs).

BerGenBio intends to continue to develop its drug candidates itself and through strategic partnerships and retains all strategic options for the future commercialization of its products.

Current partnerships with industry-leading institutions and companies are listed below:

Corporate Partnerships	
ADC Therapeutics	Merck & Co. (MSD)
Collaborations with Leading Academic Institution	
German Cancer Research Center (DKFZ)	University of Bergen
Harvard Medical School	University Hospital Leipzig
Haukeland University Hospital	University of Iowa
Massachusetts Institute of Technology	University of Manchester
MD Anderson Cancer Center	University Medical Center, Mannheim
Oslo Hospital / EUSolidAct	University of Texas Southwestern Medical Center
Southampton University	

As a core part of its business model, BerGenBio will continue to advance its research into identifying which patients may benefit most from treatment with our product candidates. The availability of biomarkers has been shown to be an important success factor in the clinical development of oncology agents, providing insights into patient selection and confirmation of mechanism(s) of action. The availability of prognostic biomarkers may also facilitate registration and reimbursement of our novel drugs. BerGenBio is employing a development strategy that includes extensive biomarker discovery activities and potential development of a companion diagnostic in parallel.



The tyrosine kinase target AXL is known to play an important role in both the innate and adaptive immune systems.

Overexpression of AXL is known to be a predictor of poor outcome in many diseases.

⬡ A promising target

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AXL – A PROMISING TARGET TO TREAT LIFE-THREATENING DISEASES

THE TYROSINE KINASE TARGET AXL IS KNOWN TO PLAY AN IMPORTANT ROLE IN BOTH THE INNATE AND ADAPTIVE IMMUNE SYSTEMS

AXL is a tyrosine kinase target that mediates aggressive disease. Under normal healthy physiological conditions, there is very low expression of AXL. However, in aggressive diseases, such as cancer and severe respiratory infections, AXL signaling is upregulated in response to hypoxia, inflammation, cellular stress and drug treatment.

The activation of AXL occurs when it binds to the ligand GAS6, resulting in overexpression and intracellular signaling. The graphic to the right illustrates the two mechanisms of action by which BerGenBio’s proprietary compounds – bemcentinib and tilvestamab – selectively inhibit AXL, along with the resulting manifestations of AXL activation in cancer and severe respiratory infections.

BerGenBio is focusing on the potential to reverse the damaging effects of AXL activation in a broad range of life-threatening illnesses through its potent, selective AXL inhibitors, bemcentinib and tilvestamab.

Key Roles of AXL

Cancer

- Invasion/Migration
- Drug resistance
- Proliferation
- Survival
- Immune suppression

Respiratory

- Viral entry cofactor
- Immune suppression
- ECM production
- Migration
- Basal cell proliferation
- Reduced cytokine signalling

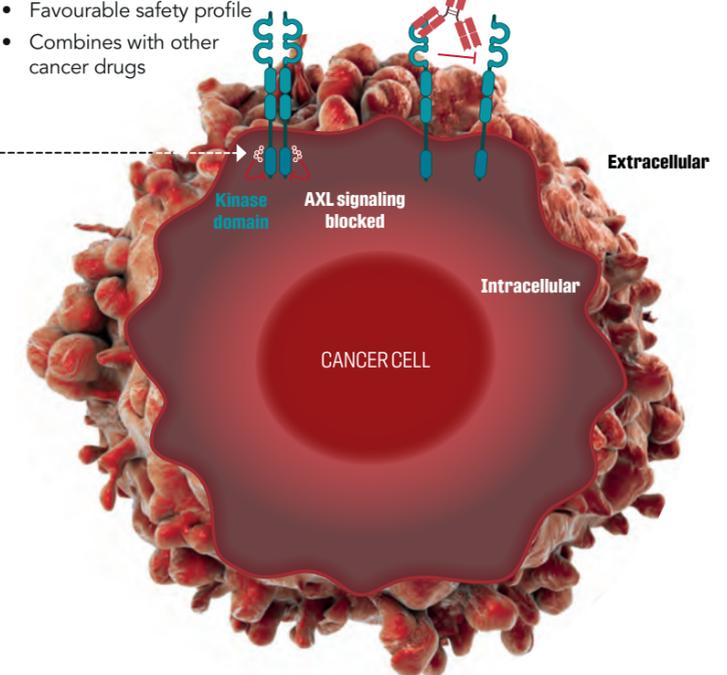
BGB’s AXL Inhibitors

Bemcentinib (BGB324)

- Orally bioavailable small molecule TKI
- Highly selective for AXL
- Potent
- Once-a-day administration
- Favourable safety profile
- Combines with other cancer drugs

Tilvestamab (BGB149)

- Anti-AXL fully humanised monoclonal antibody
- Highly selective to human AXL
- Stable formulation, scalable manufacturing process



Our product candidates

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Bemcentinib - Oral Selective AXL Inhibitor in Multiple Phase II Trials

Bemcentinib Profile at a Glance (BGB324)

- Oral, small molecule tyrosine kinase inhibitor
- First-in-class, highly selective, potent AXL inhibitor
- Once-a-day administration
- Favorable safety profile alone and in combination¹⁾
- Studied in >600 patients in 8 oncology indications and COVID-19

Our lead molecule, bemcentinib, is in Phase II clinical testing in patients with NSCLC, AML and COVID-19.

As of the end of 2021, bemcentinib had been studied in over 600 patients, demonstrating its safety as a monotherapy and in combination with chemotherapy and immune checkpoint inhibition. This large safety database positions us well to advance the development of bemcentinib towards the market.

Clinical data generated with bemcentinib in multiple Phase I and Phase II trials to date confirm its potential utility as a therapy in cancer and for the treatment of COVID-19. Based on preclinical and early clinical data, we also believe bemcentinib may have the ability to enhance outcomes when combined with immunotherapy in NSCLC. Taken together, our initial data form the basis of BerGenBio's preparations for the late-stage clinical strategy for bemcentinib.

Bemcentinib was licensed from Rigel, Inc. and we hold exclusive rights to develop and commercialize the product world-wide.

Tilvestamab - AXL Selective Monoclonal Antibody in Phase 1B

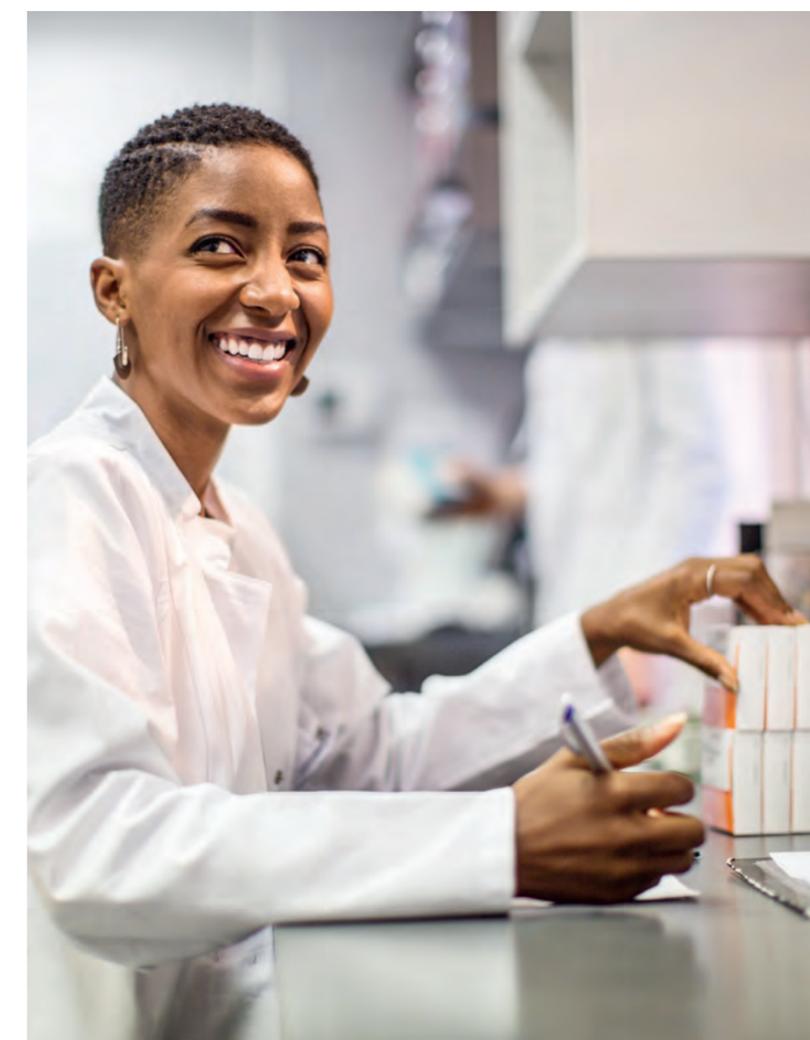
Tilvestamab Profile at a Glance (BGB149)

- Anti-AXL fully humanized monoclonal antibody
- Highly selective to human AXL
- Activity seen in pre-clinical models of cancer and fibrosis
- Well tolerated in Phase I study; Phase 1b on-going

Tilvestamab, a therapeutic anti-AXL antibody discovered and developed by BerGenBio, is being studied in a Phase 1b clinical study designed to substantiate its immune-activation properties and to potentially aid in biomarker identification.

Out-Licensed Product Candidate

In addition to our two proprietary programs, an AXL antibody developed by BerGenBio has been licensed to ADC Therapeutics and it is being used in an antibody-drug-conjugate (ADC) format. ADC Therapeutics is expected to advance its program called ADCT-601 into a Phase 1b clinical trial during 2022.



¹⁾ To date bemcentinib has been studied in combination with the immune checkpoint inhibitor pembrolizumab, with platinum-containing chemotherapy, with the AML chemotherapy LDAC, and with standard-of-care COVID-19 treatments for hospitalized patients

BerGenBio has now established a focused development path for its lead compound bemcentinib most likely to benefit

Our development focus

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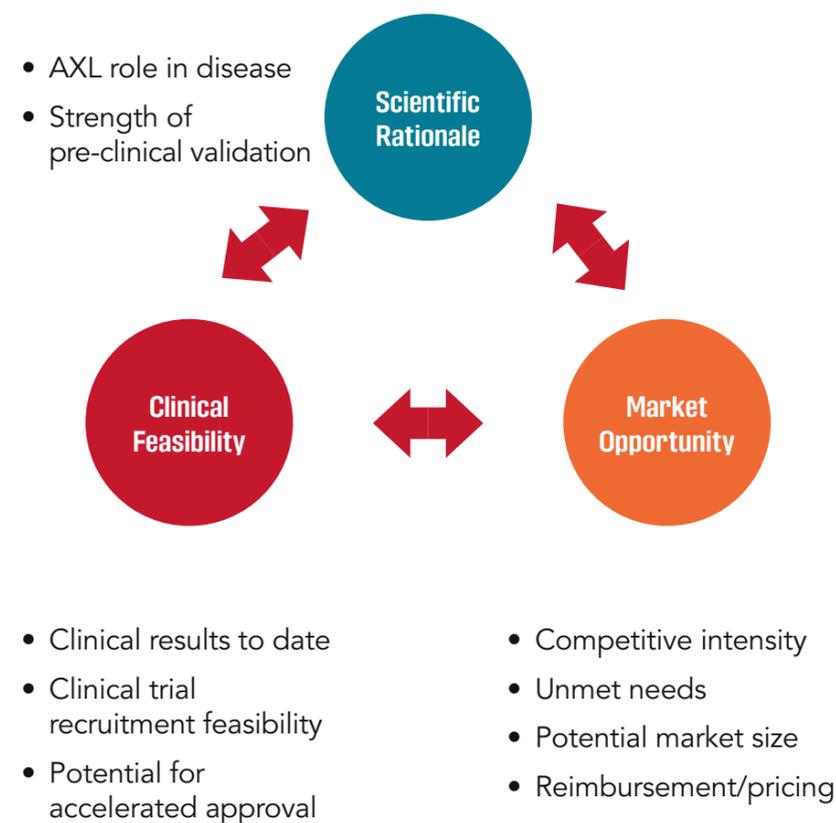
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In late 2021, our Chief Executive Officer Martin Olin led the BerGenBio management team in an extensive strategic analysis of the potential near-term applications of our lead molecule, bemcentinib. This indication-focused process included analysis of the scientific rationale underlying the indication, the clinical data obtained to date and the market opportunity.

Strategic Analysis Criteria Potential Bemcentinib Indications



The results of this intensive process identified two major focus areas for the near-term development of our lead compound bemcentinib, along with key considerations for their prioritization:

- **NSCLC patients with STK11 mutations (STK11m)**
 - Unique proprietary position in currently underserved, large biomarker population
 - Strong preclinical data supports activity in STK11m patients and initial clinical signs of efficacy
- **Hospitalized COVID-19 patients**
 - AXL upregulation known to be associated with severe respiratory infections
 - Indications of efficacy in two prior Phase II trials
 - Opportunity to participate in established platform study across the EU

Although the analysis identified additional indications with significant promise, BerGenBio will apply this focused strategy to accelerate the advancement of bemcentinib with NSCLC and COVID-19 patients.

Pipeline Overview

BerGenBio has built a significant dataset within oncology and severe respiratory infections (COVID)

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BerGenBio Clinical Pipeline

	Candidate	Targeted Indication	Preclinical	Phase I	Phase II	Registrational
oncology	Bemcentinib	AML & MDS	[Progress bar]			
	Bemcentinib	2L NSCLC	[Progress bar]			MERCK
	Tilvestamab	Ovarian Cancer Phase Ib	[Progress bar]			
	Mipasetamab uzoptirine	Solid Tumors	[Progress bar]	ADC THERAPEUTICS	Fully out-licensed mAb	
viral	Bemcentinib	COVID-19	[Progress bar]			EU SOLIDACT



Additionally, bemcentinib is being studied in Investigator Led Trials in glioblastoma, 2L lung cancer, melanoma, pancreatic cancer and mesothelioma.

BerGenBio is focused on some of the world’s most pressing life-threatening diseases: NSCLC and severe respiratory infections (COVID-19)

Industry Context

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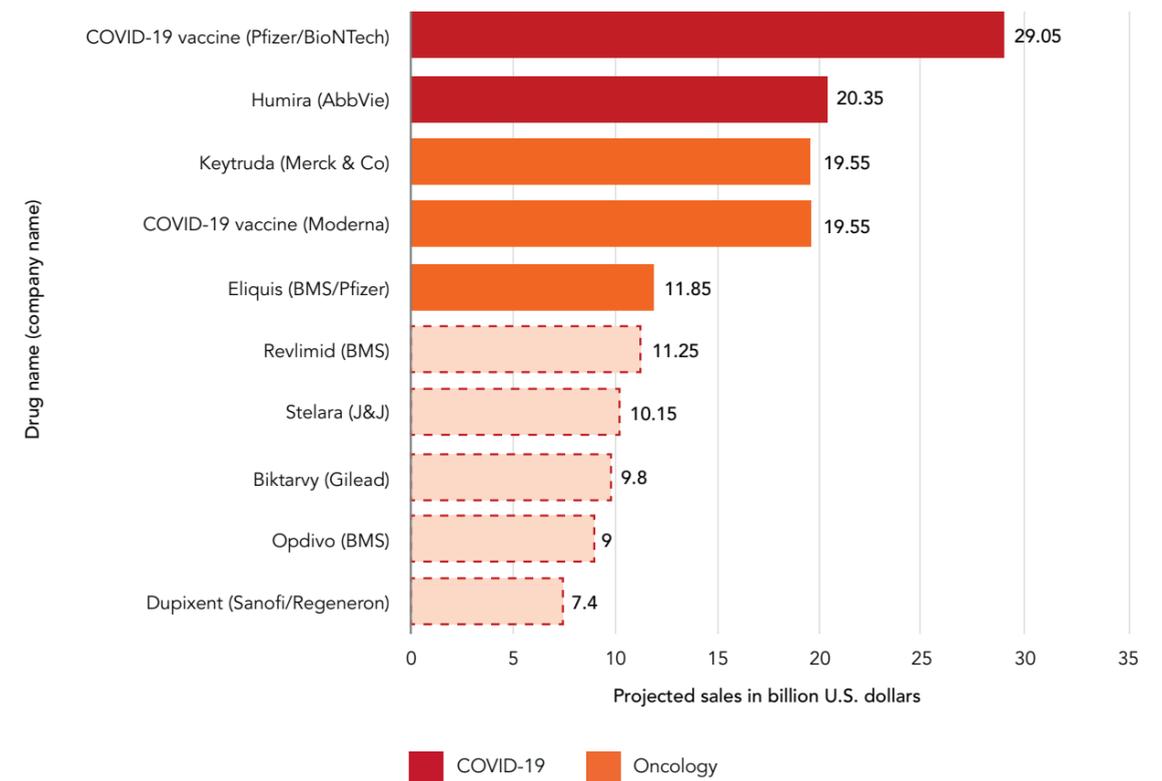
Oncology Market Dynamics

Oncology - an innovative growing market

Cancer is the second leading cause of death globally and one of the largest burdens on healthcare systems. GLOBOCAN 2020 estimated 19.3 million new cancer cases and almost 10.0 million cancer deaths occurred in 2020. The top 3 causes of deaths being lung cancer, colorectal cancer and liver cancer. The global cancer burden is expected to grow to 28.4 million cases in 2040, a 47% rise from 2020.

IQVIA estimates that global sales of oncology therapeutics were \$184 billion in 2021 and will grow to \$269 billion by the year 2025. Growth is being driven by the approval of innovative drugs, notably immuno-oncology therapeutics and the growing use of cancer therapies in developing countries.

The company is developing compounds for two highly attractive segments of the world-wide pharmaceutical market: oncology and COVID-19/severe respiratory infections. The below graph of the world’s largest selling pharmaceutical products in 2020 (latest full year data available) demonstrates the importance of the pharmaceutical segments in which BerGenBio is developing its product candidates. In addition to the significant sales of COVID-19 vaccines, sales of Veklury(R) remdesivir, the only anti-viral with full regulatory approval in hospitalized COVID-19 patients, totaled \$5.6B in 2020, demonstrating the high need for treatments of severe respiratory illnesses, such as COVID-19.



Source: Statista 2022

1) American Cancer Society – Cancer Facts & Figures 2021 (also cited as Siegel R. L. et al., Cancer Statistics, CA Cancer J Clin. 2021, 71, 7–33. <https://doi.org/10.3322/caac.21654>)

The rapid adoption of new precision medicines and immunotherapies has created new opportunities for BerGenBio

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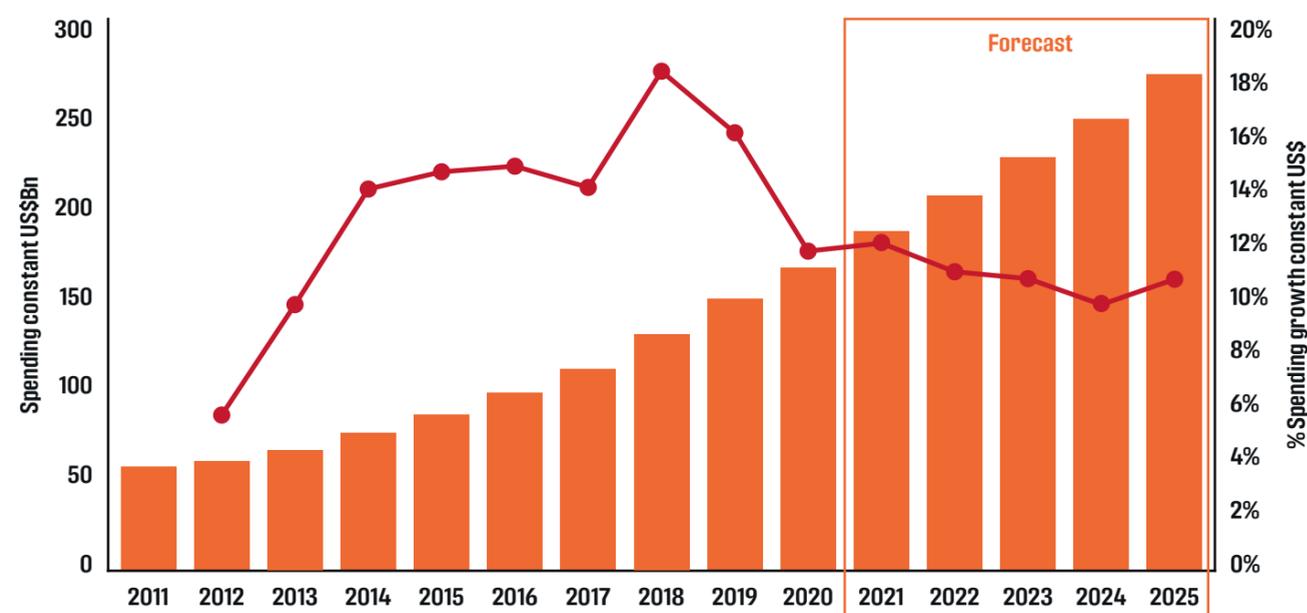
The pace of innovation in the treatment of cancers has been a significant driver of improved patient benefit. The oncology treatment landscape has evolved significantly over the past decade with the advent of new targeted therapeutics and immunotherapy. Historic standard of care for cancer included surgery, chemotherapy and radiotherapy. However, a paradigm shift in the understanding of cancer has ushered in a new age of precision medicines that provides benefits to both patients and healthcare systems. In addition, the market launch of cell therapies, such as CAR-T therapy where a patient's T-cells are engineered to attack cancers has begun to transform the treatment of hematological cancers. However, to date, these approaches have shown limited activity in solid cancers.

A key driver of improved patient outcomes has been the advent of immunotherapies such as anti-PD1/PDL1 antibody treatments. Combining immunotherapies with chemotherapy is increasingly becoming the best approach to treat the complex and constantly mutating disease that is cancer. Preclinical and clinical data indicate that bemcentinib holds the promise of further improving patient response to currently marketed immunotherapies alone or in combination with chemotherapy.

Over the past 5 years, 62 innovative oncology therapies have been launched in the US, the largest single pharmaceutical market. Collectively these therapies have been approved for over 130 indications across 24 different tumor types. Although improvements in the outlook for patients have been significant, complete cures are still a goal that is not reached for many patients due to acquired treatment resistance resulting in inevitable disease progression.

Industry Context continued

Global Oncology Spending and Growth



Source: IQVIA Oncology Review 2021

2021-2025 Key Facts

+64% total spending growth (9-12% CAGR)

+\$105Bn

~+100 new oncology drugs

The regulatory approval of new cancer therapies has increasingly occurred through expedited reviews or breakthrough designations – two FDA regulatory procedures that can shorten the regulatory path to market approval in the US. Accelerated approvals or EU conditional approvals which provide market approval based on Phase I or Phase II trials have also increased, particularly for compounds which employ

first-in-class mechanisms. Outside of the US, China has rapidly expanded its approvals of innovative oncology therapies, launching 37 new products over the past 5 years, up from 6 in the prior 5 years. Launches in the major EU and UK markets total 53 in the past 5 years.

The rapid adoption of new precision medicines and immunotherapies has created new opportunities for BerGenBio

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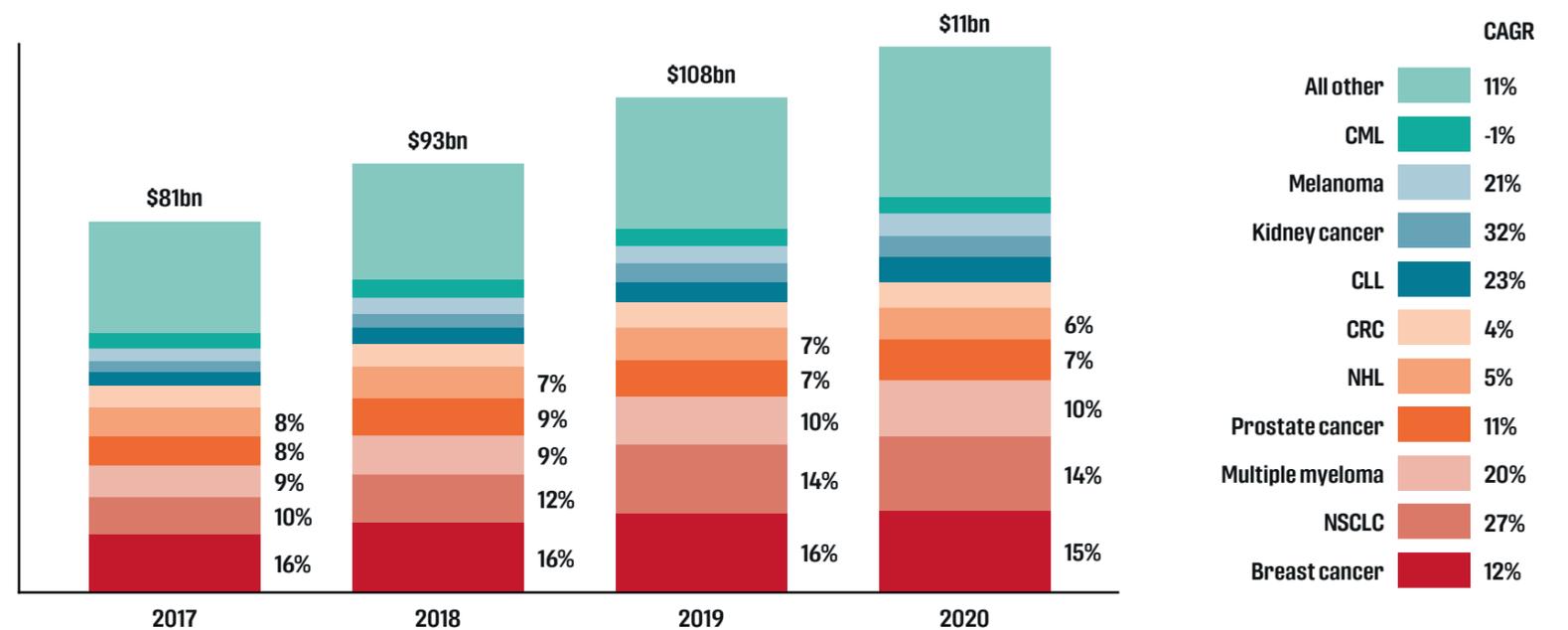
Following the advent of precision medicines, the prices of innovative cancer drugs have steadily risen over the past decade, starting with novel targeted therapies and now immunotherapies. The median annual price of new cancer drugs launched in the US in 2019 was almost \$150,000, compared to less than \$80,000 in 2013. Personalized medicine strategies that use predictive biomarker tests to identify the patients most likely to respond to treatment can command broader reimbursement and higher pricing due to improved treatment efficacy. The chart to the right illustrates the growth in spending on oncology therapeutics by tumor type driven primarily by increased use of innovative therapeutics, including immunotherapies and targeted small molecule products.

Immunotherapy - now the standard of care in many cancers

It is increasingly recognized that cancer is a disease of the immune system. The ability of cancers to evade or escape the immune response is recognized to be one of the most important hallmarks of cancer. The pharmaceutical industry has focused extensive research efforts over the last decade to identify immunotherapies that activate and enhance the body's immune system to target and kill cancer cells. These therapies have yielded exceptional results, inducing durable responses in some previously intractable cancers. Checkpoint inhibitors, in particular those targeting the PD-1/PD-L1 pathway, have been the most successful immuno-oncology therapies to date and are expected to continue to be the backbone of immunotherapy treatment in the foreseeable future. Therapeutic antibodies inhibiting the PD-1/PD-L1 pathway have seen broad uptake and are now approved in more than 20 different cancer indications.

Industry Context continued

Oncology Spending by Tumor in US, EU4+UK and Japan 2017-2020



Source: IQVIA

Following the approval of the first checkpoint inhibitors, there have been multiple approvals for combinations of checkpoint inhibitors with targeted therapies and chemotherapies. Despite their success, there remains a significant demand for new innovative treatments and combinations thereof to address the persisting unmet

medical needs and further advance the current standard of care to improve patient life span and quality of life. Synergistic combinations of checkpoint inhibitors with new immuno-oncology agents or targeted therapies to improve response and to address acquired treatment resistance represent a significant commercial opportunity.

Industry Context continued

COVID-19 will continue to be a key threat to health for the foreseeable future

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COVID-19/severe respiratory infections

In late 2021, the COVID-19 pandemic continued to disrupt lives and cause significant morbidity and mortality. As of mid-December 2021, the COVID-19 pandemic had killed over 5.3 million people worldwide. The virus had spread to 199 countries/territories, with more than 274 million confirmed cases. The highest official case counts as of December 2021 occurred in the US, India, Brazil, UK, Russia, Turkey, France, Germany, Iran, and Spain. The US alone accounted for more than 50 million confirmed COVID-19 cases and over 806,000 deaths.

Although highly efficacious vaccines are available, there is significant room for improvement in treatments for COVID-19. The standard of care today for hospitalized patients consists of corticosteroids, antibody treatments and the anti-viral remdesivir. In spite of the availability of treatments, deaths continue to occur particularly in hospitalized patients who are unvaccinated, are immuno-compromised or have other pre-existing conditions.

At the end of 2021, the emergence of the omicron variant of COVID-19 rapidly spread throughout the world. In spite of the seemingly relatively milder nature of the variant, hospitalizations increased particularly for unvaccinated patients. In addition, the number of break-through infections in the fully vaccinated population has increased with the advent of the omicron variant. Data also suggest that some currently used antibody treatments in hospitalized patients may not be fully effective against the omicron variant. Effective COVID-19 treatments for hospitalized patients that are agnostic to variants remain a high unmet medical need.

Source: University of Oxford January 26, 2022

Dynamics Point to Continued Need for New Therapies

	Vaccines	At-home Treatments	Hospital Treatments
Approved Products	mRNA vaccines Traditional vaccines	Paxlovid Molnupiravir	Corticosteroids Antibody therapy ¹⁾ Remdesivir Baricitinib ¹⁾
Current Situation	As of early 2022, only 60.8% of adults W/W have had ≤1 vaccine dose Vaccine resistance continues	Shown to reduce hospitalizations by 50–90% ¹⁾	Death rate still ~10% Current therapies have modest activity, variant coverage
Impact on Hospitalization Rate	Breakthrough infections, vaccine adversity continue to drive hospitalizations	Limited: only for vulnerable pts, need to dose w/in 5 days; requires rapid testing	Significant # of hospitalizations expected to continue; level dependent on variant, seasonality

Source: BerGenBio

¹⁾ Available under Emergency Use Authorizations

In late 2021, two anti-viral oral therapies were conditionally approved in the US for at-home use for recently diagnosed COVID-19. These therapies have shown the ability to significantly reduce the need for hospitalization and to reduce deaths. The company believes; however, that the limited availability of these drugs, coupled with the need for the availability of rapid testing, and the need to initiate therapy within five days of symptom onset will not eliminate the need for new COVID-19 treatments for hospitalized patients.

Importantly, BerGenBio believes that its product candidate bemcentinib, due to its mechanism of action, could have activity against all current and future variants of COVID-19. In addition, preclinical data and analysis of efficacy in COVID-19 patients leads us to believe there is the opportunity to study bemcentinib in other severe respiratory infections including, but not limited to acute lung injury secondary to infection.

Indication Highlight – NSCLC

Unique opportunity to establish a new biomarker driven NSCLC market

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The Opportunity

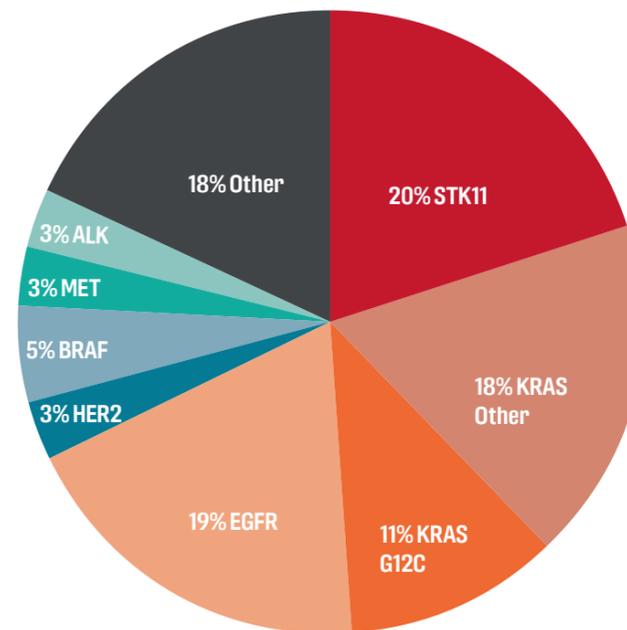
Lung cancer is the second most common cancer and despite recent advancements in treatment options, it remains the leading cause of cancer-related mortality. NSCLC is the most common type of lung cancer representing approximately 85% of patients. NSCLC generally presents late and patients are frequently diagnosed with metastatic disease, limiting potential treatment options. NSCLC is a severe disease with a 5-year survival for newly diagnosed patients of just 25% (Source: SEER). The activation of AXL is a recognized negative prognostic factor and has been shown to be an important resistance mechanism in NSCLC.

Over the last decade the NSCLC treatment paradigm has evolved significantly with the approval of targeted therapies and immunotherapies. It is now routine to screen NSCLC patients presenting with advanced disease for the presence of driver mutations to determine the optimal treatment approach. Mutations that can be specifically addressed with targeted therapies today include EGFR and ALK mutations. These targeted therapies, including the products Tagrisso® (Astra Zeneca) and Xalkori® (Pfizer) achieved estimated sales of more than 5 billion USD in 2021.

A driver mutation of the STK11 gene has been identified as being associated with NSCLC patients with poor treatment outcome; however, to date there are no targeted therapies available for this large patient population. STK11 mutations (STK11m) occur in up to 20% of NSCLC patients. Data suggest that use of standard of care immune checkpoint inhibitors such as anti-PD1/PDL1 and anti-CTLA-4 therapies, are significantly less effective in treating STK11m patients. BerGenBio is focusing on improving the therapeutic outcome for this underserved biomarker population.

In late 2022, BerGenBio received a US FDA Fast Track designation for bemcentinib in NSCLC patients harboring a STK11 mutation.

Common NSCLC Mutations



Source: World J Clin Oncol. 2021 Apr 24; 12(4): 217-237

The chart above illustrates the high frequency of STK11 mutations in NSCLC.

In late 2021 at the Society for Immunotherapy of Cancer (SITC) annual meeting, BerGenBio and its collaborators at the University of Southwest Texas Medical Center reported preclinical data illustrating the mechanism of action of poor response to checkpoint inhibition in STK11 mutated patients.

BGB's Clinical Strategy in NSCLC

BerGenBio plans to initiate a Phase 1B study in 2022 to study the safety of bemcentinib in combination with an anti-PD1 antibody and chemotherapy. This study is expected to be the first step in developing bemcentinib for the treatment of STK11m patients in 1L lung cancer. The company believes that bemcentinib's unique mechanism of action works synergistically with immunotherapies (such as anti-PD1/PDL1 mAbs) to increase a cancer's ability to be recognised and targeted by the immune system, while reducing its immunosuppressive effects. The potentiating effects of bemcentinib to enhance efficacy and address PD-1 treatment resistance are supported by encouraging data from the ongoing Phase II study (BGB008) of bemcentinib in combination with Keytruda. In late 2021, the US FDA awarded a Fast Track designation for the use of bemcentinib in STK11m NSCLC patients.

The company has previously studied the safety of bemcentinib with an anti-PD1 antibody (Keytruda®). The planned Phase Ib study will be the first time bemcentinib has been studied in combination with both an anti-PD1 and chemotherapy. Following the completion of this study, BerGenBio expects to move into larger controlled, randomized studies in this patient population.

The BerGenBio study of bemcentinib in 2L NSCLC (BGB008) has been fully recruited and the study is on-going. We continue to evaluate our data to determine if treatment of a broad population of 2L NSCLC patients or 2L NSCLC patients with STK11 mutations warrant additional study.

The evolving COVID-19 pandemic provides a unique opportunity to evaluate bemcentinib as a treatment for severe respiratory infections

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Severe respiratory infections: COVID-19 and beyond

The Opportunity

2021 saw the rapid evolution of the COVID-19 pandemic and efforts to control its spread and associated morbidity and mortality. In spite of the availability of effective vaccines, much of the world remains unvaccinated and the need for new treatments for hospitalized patients persists. Much like the flu (influenza virus), COVID-19 could become endemic with seasonal spikes in infection rates requiring long-term intervention strategies.

In the near-to-mid term there is likely to be significant demand for multiple effective treatment options for COVID-19. The standard of care is being constantly revised as our understanding of the SARS-CoV-2 virus and the COVID-19 disease increases. Building an arsenal of multiple treatments that work through different mechanisms of action is important as COVID-19 is a multifaceted illness that affects individuals in different ways. There remains an urgent need for treatments across the entire treatment spectrum.

Indication Highlight – Covid-19

Bemcentinib has been shown to have a unique dual mechanism of action to combat severe respiratory infections. In SARS-CoV-2 viral infections, preclinical studies indicate that AXL plays a key role via two mechanisms. AXL is used by the virus to gain entry into cells, facilitating viral replication and spread. It is also involved in suppressing Type 1 Interferon, a key anti-viral defense mechanism of the immune system. Bemcentinib has been shown to suppress both of these AXL mechanisms, potentially reducing the severity of disease.

Clinical Strategy in COVID/Severe Respiratory Infections

The Company believes that the most rapid route to investigating the role of bemcentinib in severe respiratory infections is through collaboration with government sponsored trials to identify new COVID therapies. In January 2022, the Company announced a collaboration with the Oslo University Hospital under which bemcentinib will be studied in the EU-funded EU-SolidAct trial in hospitalized COVID-19 patients. The EU-SolidAct trial – European DisCoVeRy for Solidarity: An Adaptive Pandemic and Emerging Infection Platform Trial – is part of EU-RESPONSE, a pan-European research project involved with the rapid and coordinated investigation of medications to treat COVID-19. Under the trial, bemcentinib will be studied in up to 500 hospitalized COVID-19 patients. In support of the trial, BerGenBio will provide bemcentinib drug material and incremental funding of costs related to the bemcentinib sub-protocol.

The Company expects that patient treatment with bemcentinib under the EU-SolidAct protocol will start in the first half of 2022. Bemcentinib was selected for inclusion in the EU-SolidAct protocol following the completion of two Phase II trials exploring bemcentinib efficacy in combination with current standard of care treatments in hospitalized patients. The trials were part of the UK's ACCORD-2 study that was funded primarily by the Department of Health and Social Care (DHSC), and a company sponsored study in South Africa and India.

Based on the role AXL plays in other severe respiratory infections, BerGenBio believes that bemcentinib may hold promise as a treatment for other severe respiratory conditions such as acute lung injury secondary to infection. We will continue to evaluate these potential applications in preclinical models in collaboration with academics specializing in these areas.