

What science can do

AstraZeneca Annual Report and Form 20-F Information 2019



Chief Executive Officer's Review

AstraZeneca's first full year of returning to Product Sales growth was made possible by our ability to deliver our science to patients. We are now maximising and exploring the full potential of our leading medicines, rapidly advancing the next wave of science and positioning your Company for continued success.



“Underpinning our return to growth has been our science-led innovation.”

Science-led growth

In 2019, Product Sales grew by 12% (15% at CER) to \$23,565 million, driven by progress in all three of our therapy areas.

Underpinning our return to growth has been our science-led innovation. The panel to the right lists the medicines we have launched from our main therapy areas since 2013. The two we launched in 2019, together with the launch of roxadustat in 2020, brings the total to 12. It is these 12 new medicines that are largely responsible for the 59% growth (62% at CER) in Product Sales of our New Medicines¹ in 2019 to almost \$10 billion. New Medicines also represented 42% of total Product Sales, up from 30% in 2018.

2019 was also another exceptional year for our science, with our pipeline producing overwhelmingly positive news for patients. This included a record number of 63 regulatory events, either submissions or approvals for our medicines in major markets. That performance is backed by a healthy pipeline of high potential medicines, with the number of Phase II and Phase III pipeline progressions indicating our ability to deliver longer-term sustainable growth. In 2019, we had 22 pipeline progressions, and an average of 24 progressions in each of the last four years.

Delivering our science for patients

Thanks to the strength of our science, we are reaching patients quickly.

Oncology

As shown in the panel, our Oncology therapy area has delivered six new cancer medicines to patients since 2013 – meeting our 2020 target early.

Of these medicines, *Lynparza*, which we are developing in collaboration with MSD, is now approved in 73 countries and is the industry-leading PARP inhibitor: approved in three tumour types, ovarian, breast and pancreatic, in 2019 *Lynparza* became the only PARP inhibitor to show clinical benefit in a fourth type – prostate. A particular benefit of *Lynparza* is its administration in the 1st-line setting which brings the goal of long-term remission and cure closer. With annual sales of more than \$1 billion, *Lynparza* benefited some 15,000 new patients in 2019.

It was also another strong year for *Tagrisso*, which is approved in more than 87 countries and is our largest selling medicine, with more than 68,000 new patients in 2019. And, *Imfinzi*, which is now approved in 15 countries for bladder cancer and in 61 countries for lung cancer, benefited some 25,000 new patients in 2019 and achieved sales of more than \$1 billion.

We have a range of clinical trials under way investigating the full potential of our marketed medicines and there are plenty more projects in our pipeline. Of course, in pushing the boundaries of science, we sometimes experience setbacks which, in 2019, included disappointing results from the Phase III trial of *Imfinzi* plus tremelimumab in Stage IV non-small cell lung cancer. Overall, however, we continue to make good progress advancing new and exciting candidate medicines designed to change the practice of medicine and ultimately eliminate cancer as a cause of death.

New medicines launched since 2013 (date of first launch)

Oncology

- > *Lynparza* (2014) for ovarian, breast and pancreatic cancer
- > *Tagrisso* (2015) for lung cancer
- > *Imfinzi* (2017) for lung and bladder cancer
- > *Calquence* (2017) for mantle cell lymphoma and chronic lymphocytic leukaemia
- > *Lumoxiti* (2018) for hairy cell leukaemia
- > *Enhertu* (2019) for breast cancer

CVRM

- > *Qtern* (2017) for diabetes
- > *Lokelma* (2018) for hyperkalaemia
- > *Roxadustat* (2020) for anaemia

Respiratory

- > *Fasenra* (2017) for severe asthma
- > *Bevespi Aerosphere* (2017) for chronic obstructive pulmonary disease (COPD)
- > *Breztri Aerosphere* (2019) for COPD

¹ *Brilinta* plus *Tagrisso*, *Imfinzi*, *Lynparza*, *Calquence*, *Farxiga*, *Lokelma*, *Fasenra*, *Bevespi* and *Breztri*. Of our remaining recently launched medicines, *Enhertu* and *roxadustat* will be added to this list in due course, while commercialisation rights of *Lumoxiti* were licensed to Innate Pharma for the US and EU in 2018.

Chief Executive Officer's Review *continued*

59%

59% growth (62% at CER) in Product Sales of our New Medicines in 2019 to almost \$10 billion

63

63 regulatory submissions or approvals for our medicines in major markets

45%

Women now make up just over 45% of senior leaders today, compared with 40% in 2012

“By harnessing the unprecedented possibilities of science and technology, by transforming the way we work and by engaging with patients in everything we do, I am confident that we will realise our pipeline's potential to the full and deliver continued success.”

Perhaps the most exciting is *Enhertu* which was approved in the US in December for the treatment of HER2-positive breast cancer. This is a difficult to treat cancer and, together with partner Daiichi Sankyo, we are exploring *Enhertu's* full potential with five ongoing pivotal trials and over 40 clinical trials planned across HER2-expressing cancers.

CVRM

In our CVRM portfolio, *Farxiga*, our treatment for diabetes, is now approved in more than 100 countries. While we received a Complete Response Letter (CRL) from the FDA during the year in respect of type-1 diabetes, the real excitement with this medicine is in following the science to explore its potential to go beyond diabetes and treat patients with heart failure. Here, our trials are demonstrating that *Farxiga* can reduce the risk of heart failure in patients with, and without, diabetes.

We are also following the science in our pipeline by, for example, exploring diseases such as non-alcoholic fatty liver disease, or other innovative approaches, including regenerating the heart by growing heart muscle back.

Respiratory

Finally, in our Respiratory portfolio, *Fasenra* is now approved in more than 50 countries for the treatment of severe asthma with an eosinophilic phenotype. First approved in 2017, it was our first respiratory biologic medicine and has already helped 50,000 patients. We continue to explore *Fasenra's* potential in treating severe asthma as well as other diseases where eosinophils are believed to play a major role.

Approvals for *Breztri Aerosphere* (PT010) in China and Japan in 2019 on the strength of the Phase III KRONOS trial, were followed by positive results from its Phase III ETHOS trial which showed a significant reduction in the rate of moderate to very severe COPD exacerbations. This evidence will be used in response to the CRL we received from the FDA in response to our regulatory submission. We are also researching tezepelumab which has the potential to treat a broad population of asthma patients currently ineligible for biologic therapies.

Our Respiratory therapy area is expanding to include immunology, where candidate medicines include anifrolumab, a potential treatment for lupus, we hope to bring soon to patients who have only seen one new treatment in some 60 years.

A global, balanced business

The contribution that each of our three therapy areas is making in delivering for patients is symptomatic of diversity and greater balance in our Company: for the first time in 2019 around half our Product Sales were in a specialty care and half in a primary care setting.

Balance is also evident in our global commercial presence, where we operate across all geographies. We have particular strength in Emerging Markets, where Product Sales increased by 18% (24% at CER) in 2019, with growth in China of 29% (35% at CER). In the US, Product Sales increased by 13%, while in Europe they declined by 2% in the year (up by 2% at CER). In Japan, Product Sales increased by 27% (26% at CER).

None of this commercial success would have been possible without the operational excellence that underpinned 106 successful market launches during the year and 31 independent inspections of our manufacturing sites with no critical observations.

Being a great place to work

To be successful, we must remain a great place to work. This is because our innovation requires breakthrough ideas that can only come from people encouraged to be themselves at work, enabled to contribute to their full potential, and empowered to challenge conventional thinking. For us that means being an inclusive and diverse workplace, attracting and retaining the best people. For example, women now make up just over 45% of senior leaders today, compared with 40% in 2012, and we are aiming to reach 50% by 2022.

To ensure our organisation is best able to deliver our ambition, in January 2019, we announced changes that created therapy area-focused R&D units responsible for discovery through to late-stage development – one for Oncology and one for BioPharmaceuticals (CVRM and Respiratory). While we continue to make decisions on a Group-wide basis based on overall therapeutic considerations, these changes have enabled us to follow the science by accelerating promising early-stage assets and life-cycle management programmes, as well as making us more agile and collaborative in the way we work.

Global Product Sales by therapy area

	2019			2018			2017		
	Product Sales \$m	Actual growth %	CER growth %	Product Sales \$m	Actual growth %	CER growth %	Product Sales \$m	Actual growth %	CER growth %
Oncology	8,667	44	47	6,028	50	49	4,024	19	19
Cardiovascular, Renal & Metabolism	6,906	3	6	6,710	(8)	(8)	7,266	(10)	(10)
Respiratory	5,391	10	13	4,911	4	3	4,706	(1)	(1)
Other Disease Areas	2,601	(24)	(21)	3,400	(18)	(19)	4,156	(18)	(17)
Total	23,565	12	15	21,049	4	4	20,152	(5)	(5)

Working with patients to deliver more

As we accelerate growth, our strategy is focused on exploring the full potential of our leading medicines and advancing our science. For us that means continued innovation – both in our science and the way we work. Throughout this Annual Report and listed to the right are examples of how we are doing that, including ideas which we crowdsourced from employees.

Putting patients at the heart of what we do is central to those efforts and an example of how we live our Values. That means recognising patients as people first and working with them to help us innovate and deliver advances across everything that a patient experiences – from prevention and awareness, diagnosis, treatment and post-treatment to wellness.

As the case studies also indicate, we are using digital technology more generally to transform the way we work and reimagine healthcare across all areas, from R&D to Commercial, and from Operations to our enabling units.

Sustaining the planet

We are a Company that has long recognised the interconnection between business growth, the needs of society and the limitations of our planet. Climate change is an urgent threat to public health, the environment and the sustainability of the global economy. Since 2015, we have reduced our carbon emissions from operations by almost one third and our water consumption by almost one fifth. But now is the time to act even faster and, in January 2020, we announced an ambitious \$1 billion programme for zero carbon emissions from our global operations by 2025 and to ensure our entire value chain is carbon negative by 2030. This would bring forward our decarbonisation plans by more than a decade.

This announcement builds on our longstanding commitment to leading in sustainability and contributing to society. For example, 2019 was the fifth anniversary of our Healthy Heart Africa programme. It was also the tenth year of our award-winning Young Health Programme where, with our recently announced partnership with UNICEF, we will have a truly global disease prevention programme working in some of the hardest to reach areas of the world.

Our long-term future

Our decarbonisation plans for the planet are for the long term. Our Company is also for the long term. As well as delivering our science for patients today, we have ambitious future plans built on our healthy pipeline. By harnessing the unprecedented possibilities of science and technology, by transforming the way we work and by engaging with patients in everything we do, I am confident that we will realise our pipeline's potential to the full and deliver continued success.

That confidence stems from the talented team we can draw on in AstraZeneca, as well as our many partners, and the continued support of Leif and the Board of Directors. I am grateful to them all.



Pascal Soriot
Chief Executive Officer

Delivering our strategy

Understanding disease better: Transforming the discovery and development of innovative new medicines. See page 27.

Redefining clinical trials: Making clinical trials better and easier for patients. See page 30.

Improving patient access: Exploring new value-based payment models. See page 36.

Improving outcomes for patients: Establishing Health Innovation Hubs to deliver patient-focused disease management solutions. See page 43.

Being a great place to work: Attracting and retaining the best people. See page 48.

Ambition Zero Carbon: Our strategy to eliminate emissions by 2025 and be carbon negative by 2030. See page 53.