



Merck Q4 2021 Earnings

February 3, 2022



Agenda



Strategy and Business Update

Rob Davis
President & Chief
Executive Officer



Business/Financial Results and Outlook

Caroline Litchfield
Chief Financial Officer



Research Update

Dr. Dean Li
President, Merck
Research Laboratories



Question & Answer Session

Forward-looking statement of Merck & Co., Inc., Kenilworth, N.J., USA

This presentation of Merck & Co., Inc., Kenilworth, N.J., USA (the “company”) includes “forward-looking statements” within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. These statements are based upon the current beliefs and expectations of the company’s management and are subject to significant risks and uncertainties. There can be no guarantees with respect to pipeline candidates that the candidates will receive the necessary regulatory approvals or that they will prove to be commercially successful. If underlying assumptions prove inaccurate or risks or uncertainties materialize, actual results may differ materially from those set forth in the forward-looking statements.

Risks and uncertainties include but are not limited to, general industry conditions and competition; general economic factors, including interest rate and currency exchange rate fluctuations; the impact of the global outbreak of novel coronavirus disease (COVID-19); the impact of pharmaceutical industry regulation and health care legislation in the United States and internationally; global trends toward health care cost containment; technological advances, new products and patents attained by competitors; challenges inherent in new product development, including obtaining regulatory approval; the company’s ability to accurately predict future market conditions; manufacturing difficulties or delays; financial instability of international economies and sovereign risk; dependence on the effectiveness of the company’s patents and other protections for innovative products; and the exposure to litigation, including patent litigation, and/or regulatory actions.

The company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise. Additional factors that could cause results to differ materially from those described in the forward-looking statements can be found in the company’s 2020 Annual Report on Form 10-K and the company’s other filings with the Securities and Exchange Commission (SEC) available at the SEC’s Internet site (www.sec.gov).



Strategy & Business Update

Rob Davis

President & Chief Executive Officer



Delivered on our key strategic priorities in 2021



Achieved strong commercial and financial performance



Advanced the pipeline to meet patient unmet need



Executed on strategic business development to enhance pipeline



Created long-term value for patients and shareholders

Exceptional Q4 and 2021 sales and earnings growth¹



Q4 Worldwide Sales

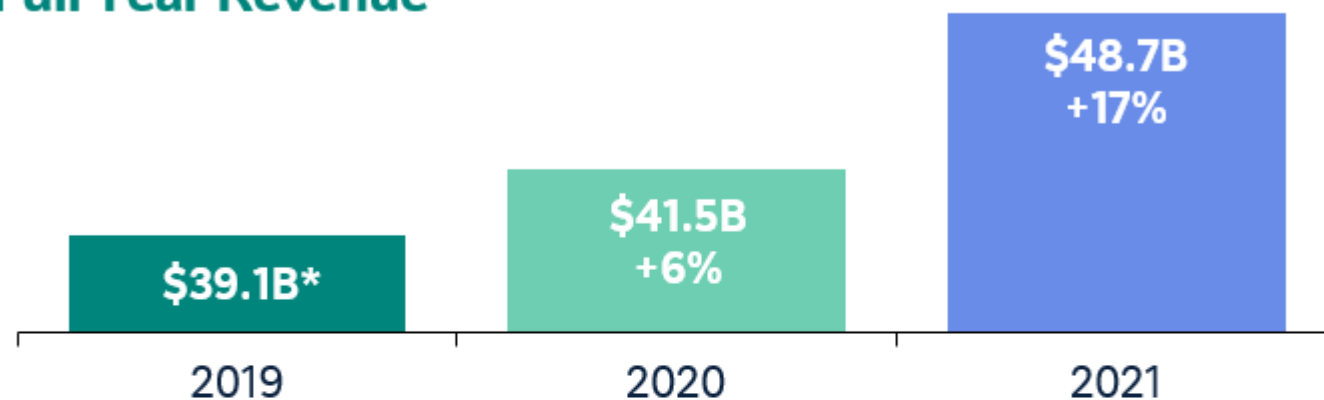
\$13.5B
+24%



Q4 Non-GAAP EPS

\$1.80
+84%

Full Year Revenue



Full Year EPS



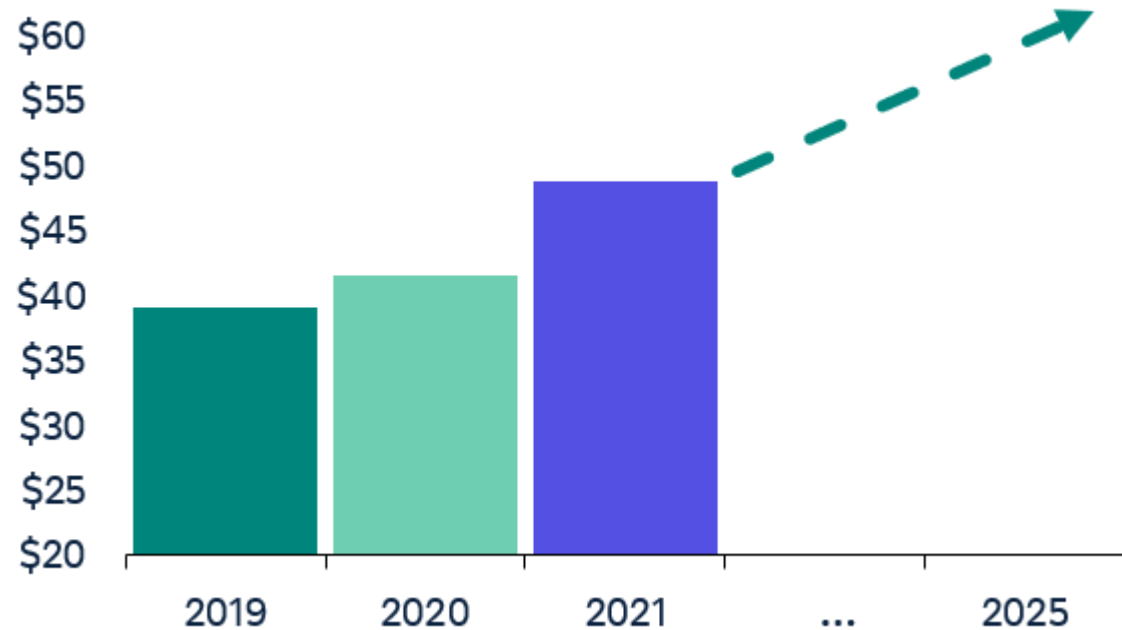
* Growth rate not available as restated 2018 results are not provided.
1. Results from continuing operations attributable to Merck & Co., Inc.

Expect continued strong growth in revenue and earnings

Revenue

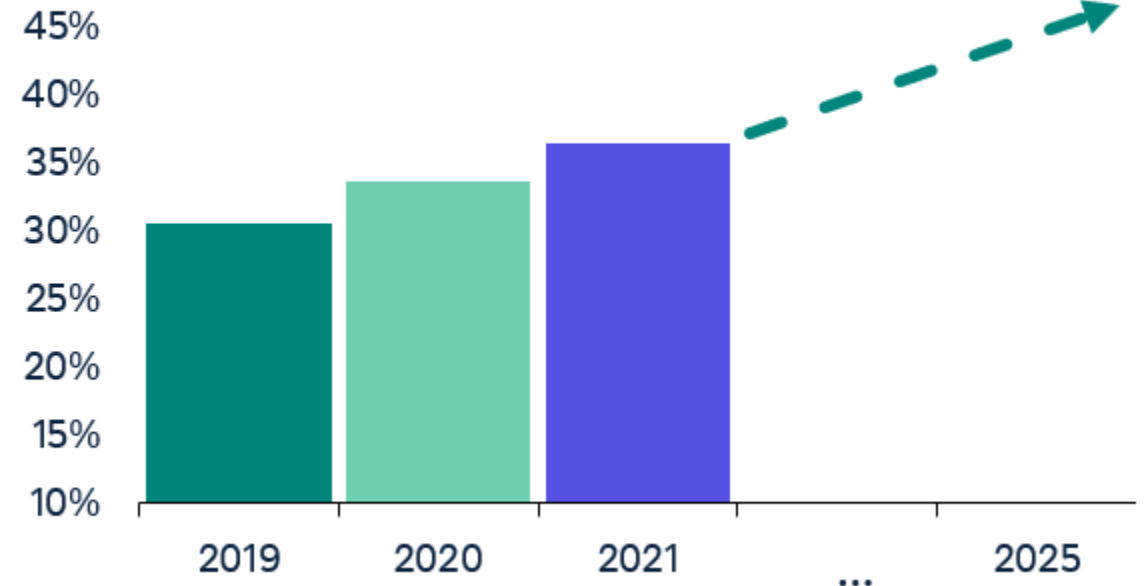
Delivering visible de-risked revenue growth through 2025

\$ in billions



Operating margins¹

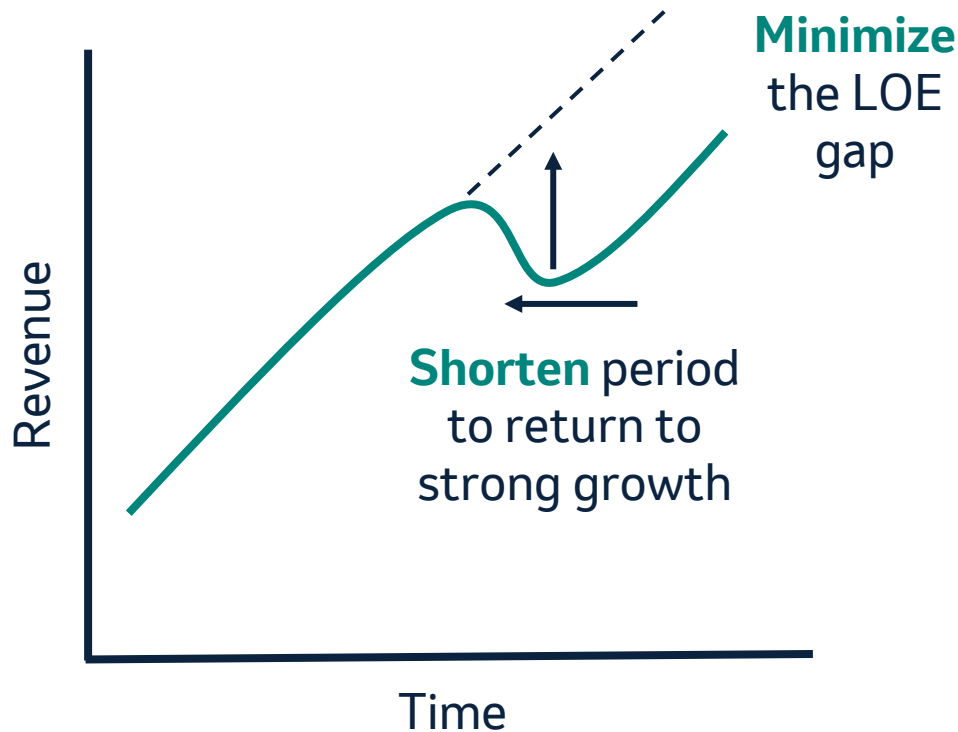
Commitment to drive leverage in the P&L with operating margins >43% by 2025



2021+ not to scale.

1. Non-GAAP operating margins

Multiple levers to navigate the KEYTRUDA LOE



- **Leverage** leadership in oncology
- **Enhance** durable growth drivers
- **Deploy cash flow** from key assets to business development
- **Advance pipeline** across key therapeutic areas

Business development remains an important strategic priority

- Accessing the **best external science** through value-enhancing business development
- **Financial flexibility** to pursue both early- and late-stage opportunities
- **Unbounded** by therapeutic area
- **Appropriately aggressive** in adding innovative assets to help drive long-term revenue growth

\$34.0B

on business development transactions over the past 4 years

\$14.0B in 2021

\$10.6B in 2020

\$6.1B in 2019

\$3.3B in 2018

Includes bolt-on acquisitions, strategic collaborations & licensing, and milestone payments

Made progress towards integrating ESG into our strategy

- Inaugural issuance of \$1 billion **sustainability bond**
- Agreement with UNICEF to help ensure **broad global access** for molnupiravir
- Hosting **ESG Investor Event** on February 23, 2022

ESG Priority Areas





Business/Financial Results and Outlook

Caroline Litchfield
Chief Financial Officer

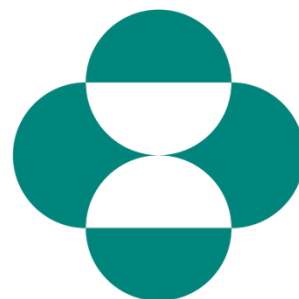


Merck achieved exceptional 2021 financial performance¹

WORLDWIDE SALES²

\$48.7B

+17% growth
+16% ex-exchange



Merck

NON-GAAP EPS^{3,4}

\$6.02

+33% growth
+32% ex-exchange

1. Results from continuing operations attributable to Merck & Co., Inc. 2. Worldwide Sales includes Other Revenue; 3. Merck is providing certain 2021 and 2020 non-GAAP information that excludes certain items because of the nature of these items and the impact they have on the analysis of underlying business performance and trends. Management believes that providing this information enhances investors' understanding of the company's results and permits investors to understand how management assesses performance. Management uses these measures internally for planning and forecasting purposes and to measure the performance of the company along with other metrics. In addition, senior management's annual compensation is derived in part using non-GAAP pretax income. This information should be considered in addition to, but not as a substitute for or superior to, information prepared in accordance with GAAP. 4. GAAP EPS of \$1.51.

Strong Q4 sales growth across Human Health and Animal Health



Merck

WORLDWIDE SALES^{1,2}

\$13.5B

+ 24% growth
+23% ex-exchange
+14% ex-exchange, molnupiravir³



Human Health

\$12.0B

+23% growth
+23% ex-exchange
+13% ex-exchange, molnupiravir³



Animal Health

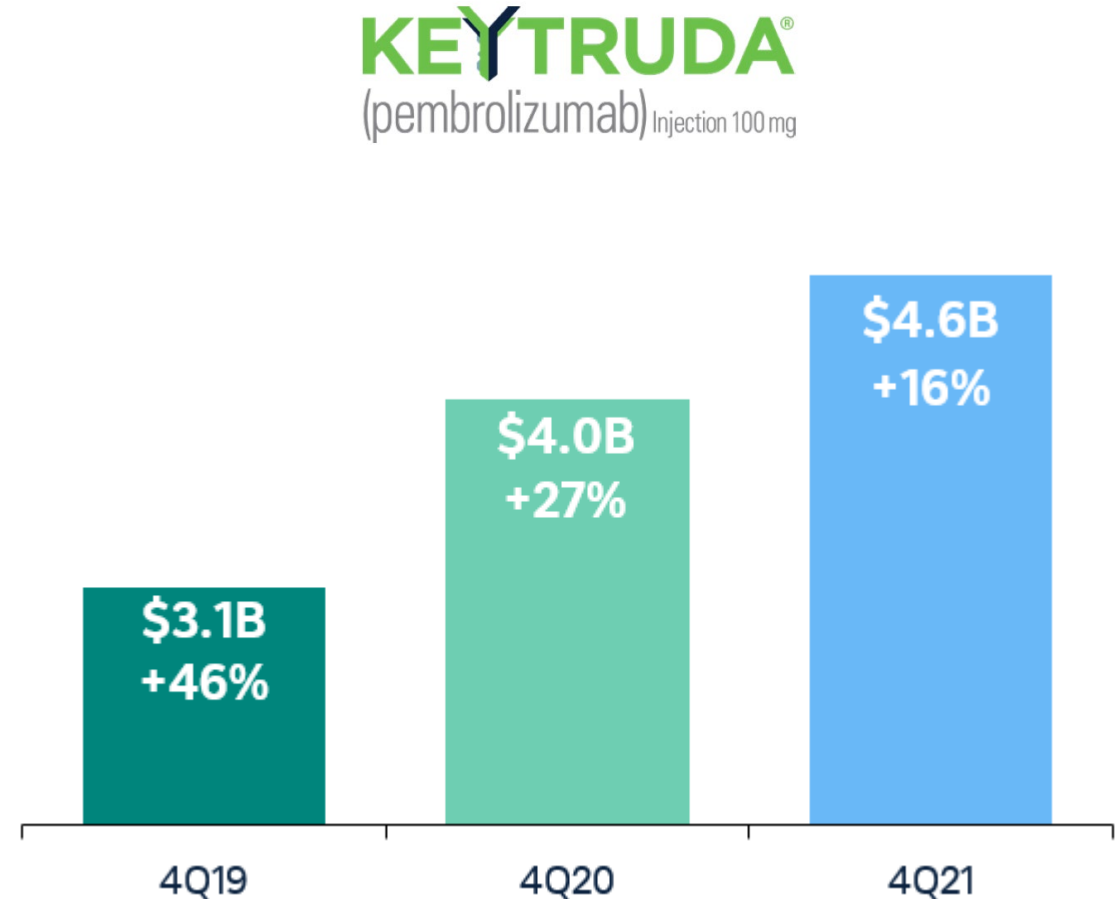
\$1.3B

+8% growth
+8% ex-exchange

1. Results from continuing operations attributable to Merck & Co., Inc. 2. Worldwide Sales includes Other Revenue 3. Excludes impact of foreign exchange and molnupiravir sales of \$952M in the quarter

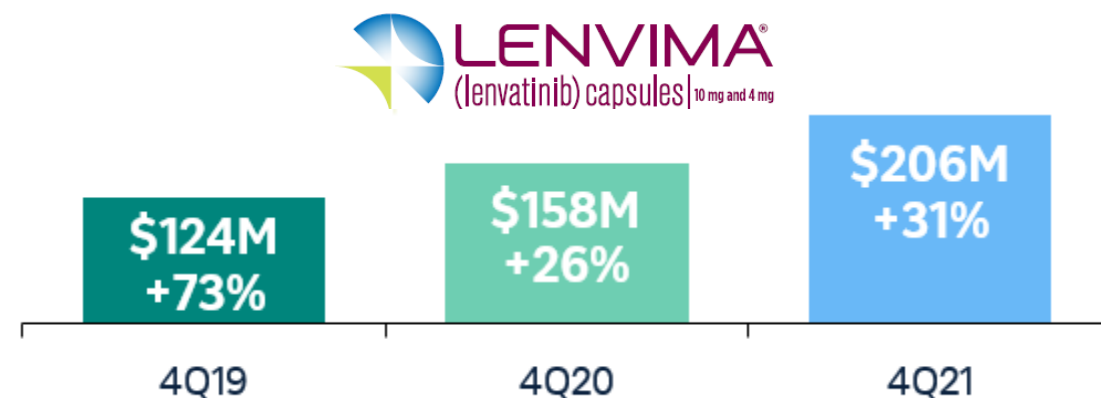
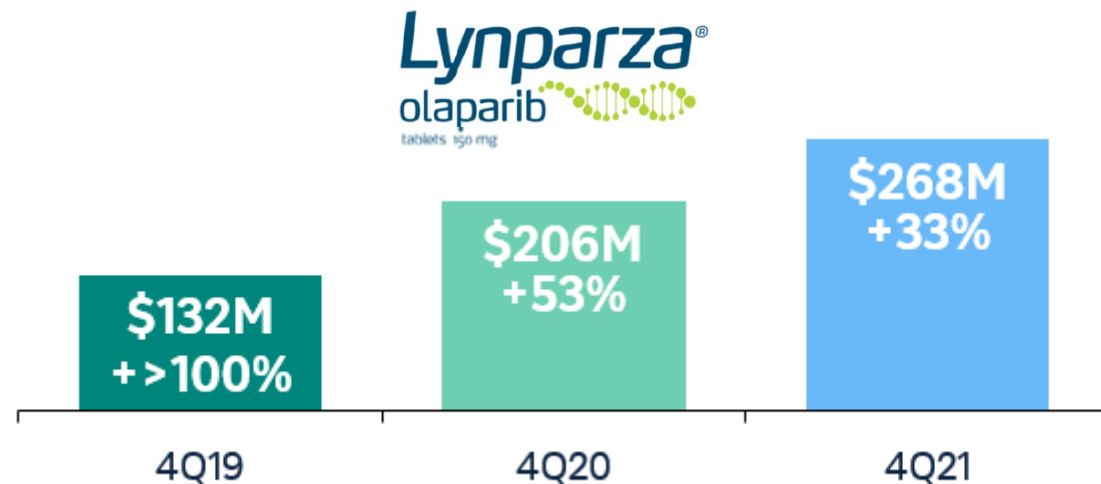
Oncology: KEYTRUDA drives continued momentum

- KEYTRUDA sales of \$4.6B increased 16% year-over-year, driven by momentum across key tumor types and recent launches
 - In the U.S., sales of \$2.7B driven by growth across all key tumor types, including continued leadership in lung, as well as TNBC, RCC, HNSCC and MSI-H
 - Ex-U.S., 12% growth was driven by global uptake in lung as well as RCC and HNSCC
- KEYTRUDA will continue to expand into earlier lines of therapy
 - Recent approvals in adjuvant RCC and Stage IIB or IIC melanoma, top-line results in NSCLC
 - In the U.S., more than half of KEYTRUDA's annual growth will come from indications in earlier-stage treatment settings through 2025, and will represent roughly 30% of total U.S. KEYTRUDA



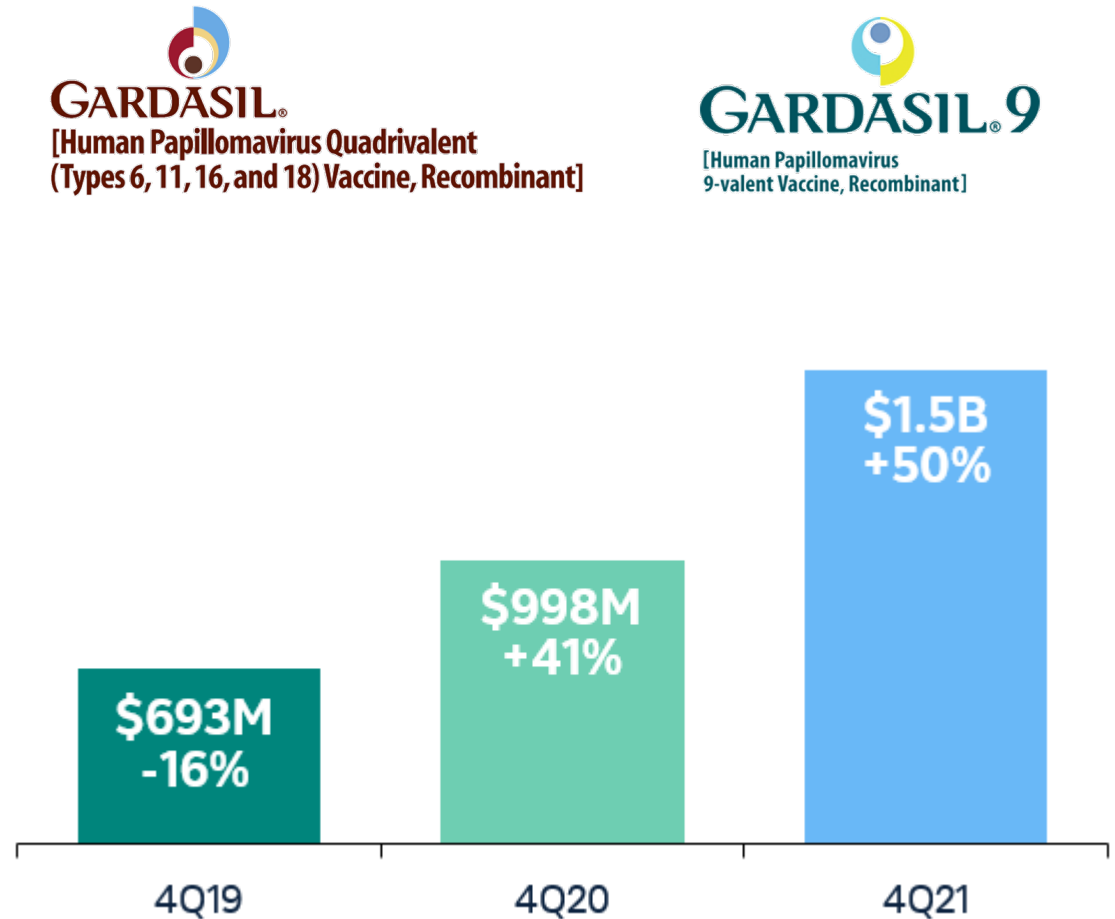
Oncology: Strong growth across broad portfolio

- Lynparza sales increased 33%, with growth driven by advanced breast and continued uptake in other approved indications, including advanced prostate
- Lenvima sales grew 31% driven by RCC and endometrial in the U.S.
- WELIREG launching successfully in patients with certain VHL-associated tumors; potential to expand to broader RCC indications in the future



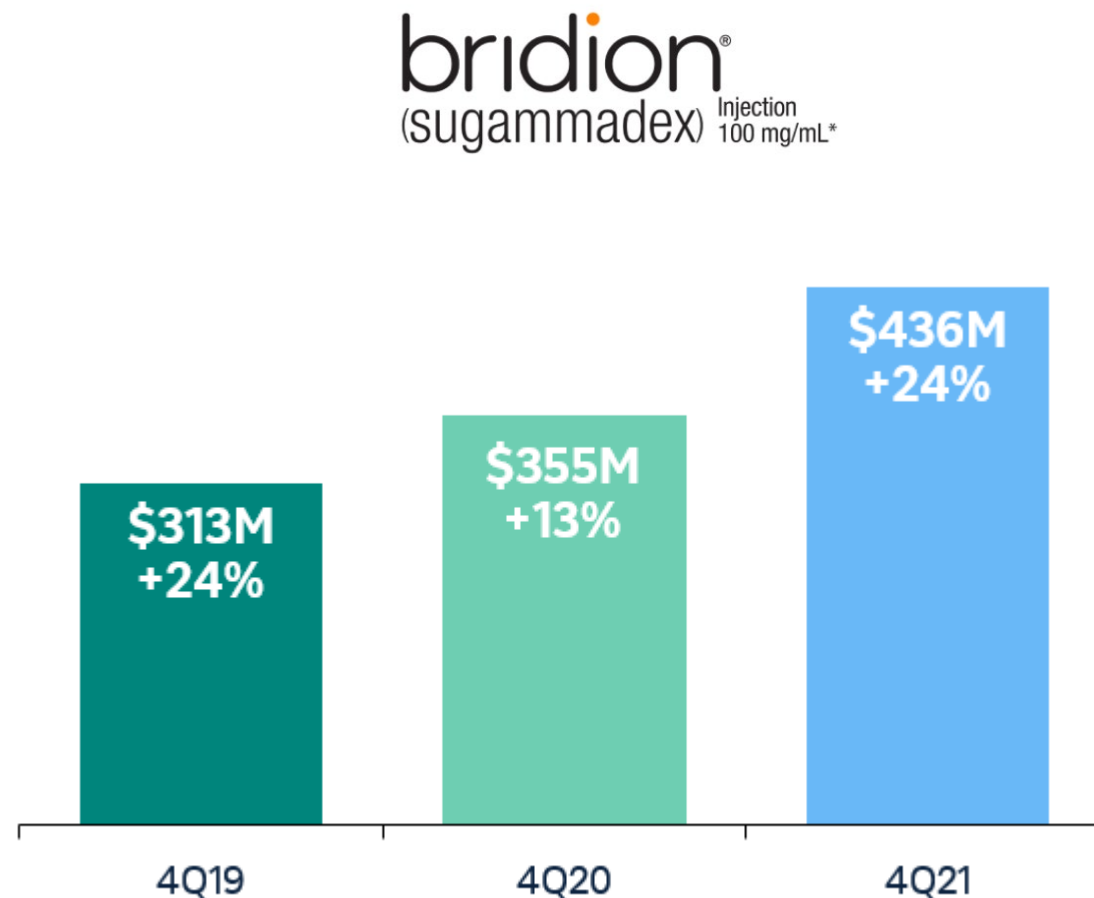
Vaccines: GARDASIL benefitting from robust global demand and improved supply

- GARDASIL sales of \$1.5B increased 50% year-over-year driven by strong global demand and increased supply
 - Ex-U.S., growth was driven by robust demand, increased supply and reallocation of doses
 - U.S. impacted by CDC purchase timing, stockpile replenishment in Q4 2020 and COVID-19 vaccine prioritization



Hospital: Strong performance by BRIDION and PREVYMIS

- BRIDION sales of \$436M increased 24% year-over-year driven by increased usage of neuromuscular blockade reversal agents and BRIDION's growing share within the class
- Continued uptake of PREVYMIS, driven by ongoing launches
- ZERBAXA supply reinitiated in Q4 following voluntary recall



Animal Health: durable growth across portfolio

- Animal Health sales increased 8% to \$1.3B, reflecting growth across geographies and species
 - Companion Animal sales increased 26%, driven by the BRAVECTO parasiticide line of products and vaccines
 - Livestock sales reflect higher demand globally for poultry and swine products
 - Sales were relatively flat compared with Q4 2020 due to an extra month of sales recorded in Q4 2020 related to the acquisition of Antelliq



Q4 2021 continuing operations non-GAAP financial results summary:

Delivered strong revenue and EPS growth

\$ in billions, except EPS amounts

	Q4 2021	Q4 2020	Change	Change Ex-FX
Sales	\$13.5	\$10.9	+24%	+23%
Non-GAAP Gross Margin¹	74.8%	75.0%	-0.2pts	-0.8pts
Operating Expenses	\$5.3	\$5.2	+2%	+3%
Tax Rate	4.3%	15.3%	-11.0pts	N/A
Non-GAAP EPS that excludes certain items¹	\$1.80	\$0.98	+84%	+82%

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Merck full-year 2022 guidance

	Guidance	Key Assumptions
Revenue	\$56.1B to \$57.6B +15% to +18% (+17% to +20% ex-FX)	<ul style="list-style-type: none"> Assumes ~2% negative FX impact Includes an expected \$5-6 billion of molnupiravir revenue
Non-GAAP Gross Margin Rate ¹	~74.0%	<ul style="list-style-type: none"> Impacted by inclusion of molnupiravir profit share
Non-GAAP Operating Expenses ²	Increase by mid-to-high single-digit rate	<ul style="list-style-type: none"> Includes a full year of R&D expenses as a result of the Acceleron acquisition; investments in portfolio and pipeline
Other (Income) / Expense	~\$350M of expense	
Tax Rate ³	~13.0-14.0%	<ul style="list-style-type: none"> Reflects impact of increased molnupiravir revenues and certain tax legislation changes for research and development expenses in 2022
Shares Outstanding	~2.53B	
GAAP EPS ⁴	\$5.76 to \$5.91	
Non-GAAP EPS ⁴	\$7.12 to \$7.27 +18% to +21% (+19% to +22% ex-FX)	<ul style="list-style-type: none"> Assumes ~1% negative FX impact

1. GAAP Gross Margin Rate: ~68%. 2. GAAP Operating Expenses: Lower than 2021 by a low to mid-single-digit rate. 3. GAAP Tax Rate: ~12.0% - 13.0%
4. The GAAP to non-GAAP reconciliation is available in Merck's Q4 2021 earnings release

Molnupiravir can be an important treatment option to combat ongoing global pandemic

- Revenue guidance range of **\$5B to \$6B** in 2022, weighted to the first half of the year
- Obtained **10 regulatory authorizations/approvals**, including EUA from the FDA in December
- Announced a number of supply and purchase agreements totaling **~10M courses of therapy**; **broad access strategy** for low- and middle-income countries
- Within the next few days, will have **shipped >4M courses of therapy** to **>25 countries**, including ~3M courses to the U.S.
- Share global profits equally with partner Ridgeback Biotherapeutics



Key modeling assumptions & outlook

Oncology

- Strong growth across oncology portfolio

GARDASIL

- Very strong growth driven by robust demand and increased supply in 2022, albeit not at the same pace as in 2021
- Global HPV vaccination levels remain low in eligible patient cohort
- Sales to potentially double by 2030

Pneumococcal

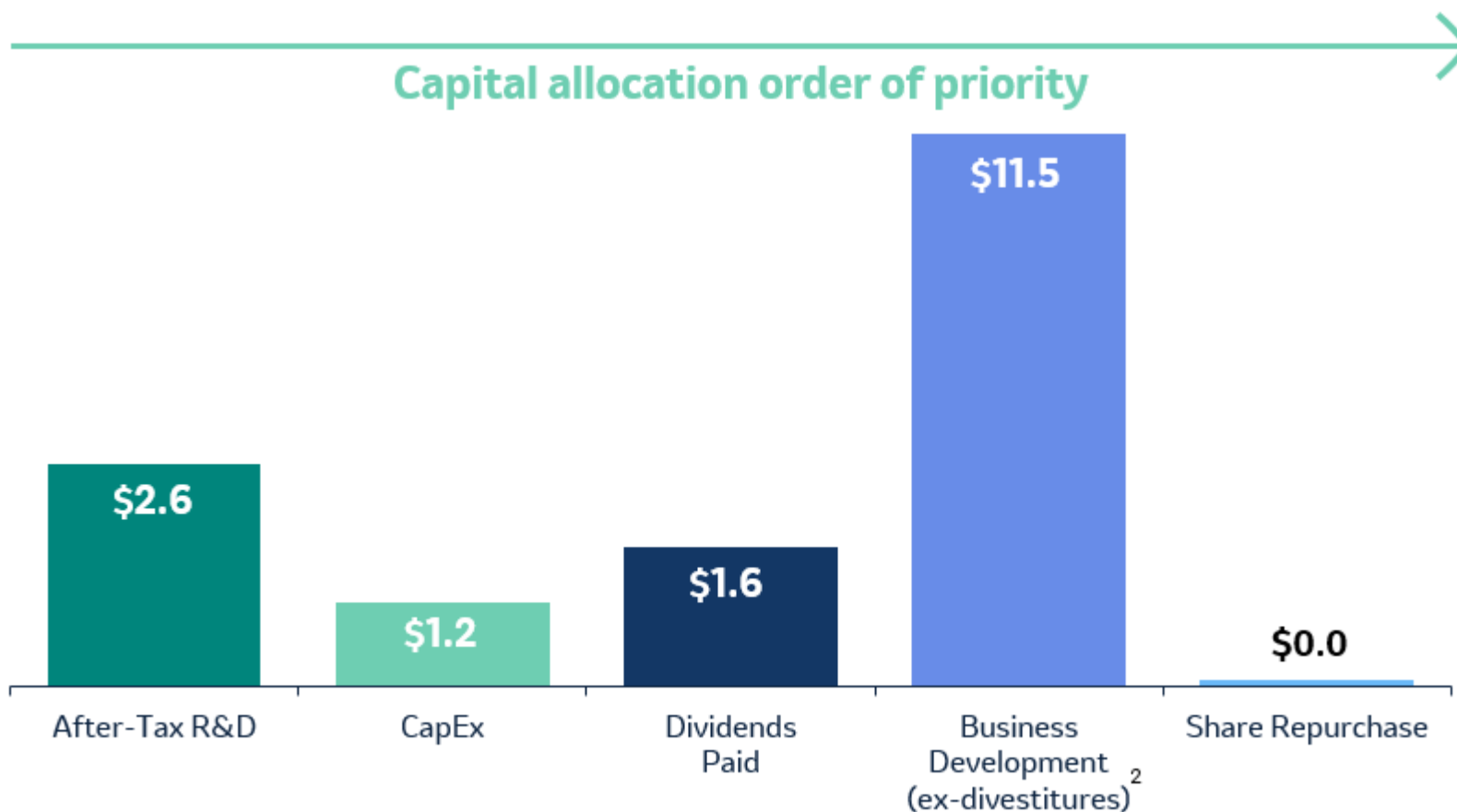
- Expect pneumococcal franchise to grow in 2022
- Uptake from recent launch of VAXNEUVANCE partially offset by PNEUMOVAX23 as the market shifts toward newer pneumococcal conjugate vaccines

Animal Health

- Above market growth in 2022
- Normalization of favorable companion animal trends

Higher Q4 business development spend driven by Acceleron acquisition

\$ Billions¹



Well positioned balance sheet with capacity to fund **additional value-enhancing business development** opportunities

1. Reflects Q4 spend 2. Includes payment for Acceleron acquisition



Research Update

Dr. Dean Li

President, Merck Research Laboratories



Driving value for patients and shareholders by progressing our pipeline in 2021

Oncology

Key regulatory milestones

- In the U.S. received 11 FDA approvals¹, 1 NME (WELIREG). FDA accepted filing for KN-158 and granted priority review for OlympiA
- In the EU, received 6 approvals² and Q6W dosing regimen for KEYTRUDA. Received CHMP positive opinion for KN-361 and KN-564²
- In Japan, received 5 approvals
- In China, received 3 approvals and Q6W dosing regimen for KEYTRUDA

Data and pipeline milestones

- Presented new data and announced topline results for assets across our broad portfolio, including KN-091 and PROpel
- Advanced novel mechanisms including coformulations with pembrolizumab into Phase 3:
 - vibostolimab+pembrolizumab (TIGIT)
 - quavonlimab+pembrolizumab (CTLA-4)
 - favezelimab+pembrolizumab (LAG3)

Vaccines

- In the U.S., received FDA approval for VAXNEUVANCE in the adult setting. FDA granted priority review for VAXNEUVANCE in the pediatric setting
- In the EU, received CHMP positive opinion for VAXNEUVANCE in the adult setting

- Announced topline results from Phase 3 trials for VAXNEUVANCE (i.e.: PNEU-PED)

Infectious diseases, cardiometabolic & new products

- Received FDA Emergency Use Authorization for molnupiravir as well as authorization in other markets
- In Japan, received approval for LYFNIA (gefapixant³) and RECARBRIO
- Verquvo received approvals in the U.S., EU and Japan

- Presented new data for MK-0616 (oral PCSK9)
- Advanced pipeline assets MK-2060 (Factor XI inhibitor), MK-5475 (inhaled SGC) and Verquvo
- Advanced molnupiravir in post-exposure prophylaxis for COVID-19
- Acquired new assets through business development, including MK-6194 (IL-2 mutein) and sotatercept (ligand trap)

In US, EU, Japan and China in 2021, **more than:**

30
Approvals

20
NDAs and sBLAs filed

1. Reflects new approvals and conversions to full approvals 2. Received European Commission approval for KN-564 in January 2022 3. Received Ministry of Health, Labor and Welfare approval in January 2022

Molnupiravir represents an important treatment option against COVID-19 in high-risk, non-hospitalized patients

- **Pandemic** continues to impact communities and health care systems
- **Accessible** therapeutic options are needed for high-risk patients
- **Six independent** preclinical studies demonstrated molnupiravir showed activity against Omicron variant *in vitro*
- Molnupiravir is well-positioned to play a role due to its key attributes:
 - **Oral** treatment option
 - **Reduction** in hospitalizations or deaths in MOVE-OUT trial, including ~90% fewer deaths
 - **Low** propensity for **drug-drug interactions**
 - **Activity** against **Omicron** *in vitro*
 - **High barrier** to resistance



The NEW ENGLAND
JOURNAL of MEDICINE

“

Early treatment with molnupiravir reduced the risk of hospitalization or death in at-risk, unvaccinated adults with Covid-19.

”

Cell Research

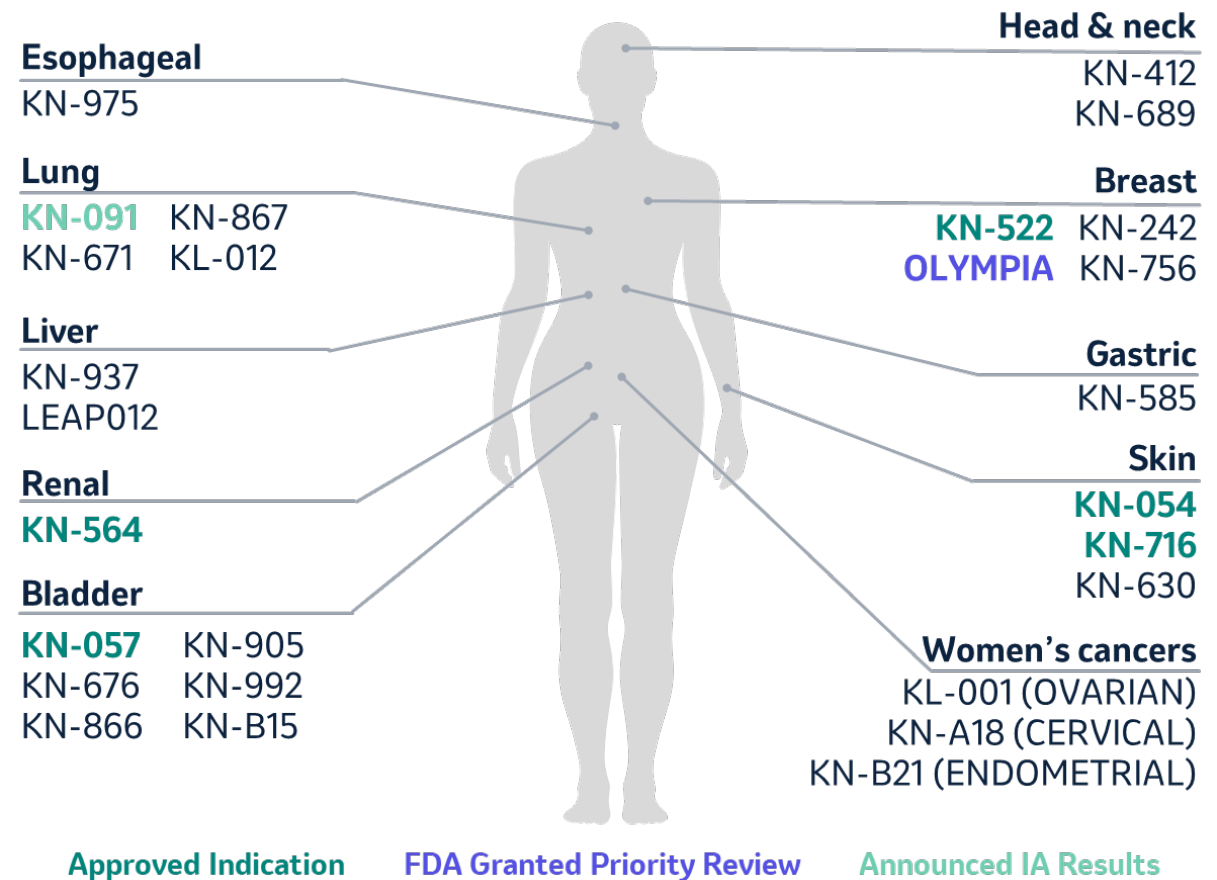
“

This study has demonstrated that molnupiravir ... potently inhibited the infection of SARS-CoV-2 Omicron variant.

”

Continuing to make progress with the broadest early-stage IO clinical development program

- **Recent approvals** in RCC and melanoma
 - KEYTRUDA is the first and only immunotherapy treatment option in the adjuvant RCC setting
 - KEYTRUDA is first and only anti-PD1 therapy approved as adjuvant treatment in melanoma across stages IIB, IIC and III disease
- **Announced findings** in NSCLC
- **Priority review** in early-stage, high-risk breast cancer



Pipeline updates and progress

Chronic Cough

- Discuss next steps with the FDA for gefapixant
- Committed to addressing significant unmet need
- Received approval for LYFNUA (gefapixant) in Japan

Pneumococcal Disease

- VAXNEUVANCE approved for adults in U.S. and EU
- Under priority review by the FDA in the pediatric setting

HIV

- Continue to evaluate data in studies with islatravir¹
- Confident in the potential of the NRTTI mechanism for prevention and treatment of HIV

Cardiometabolic

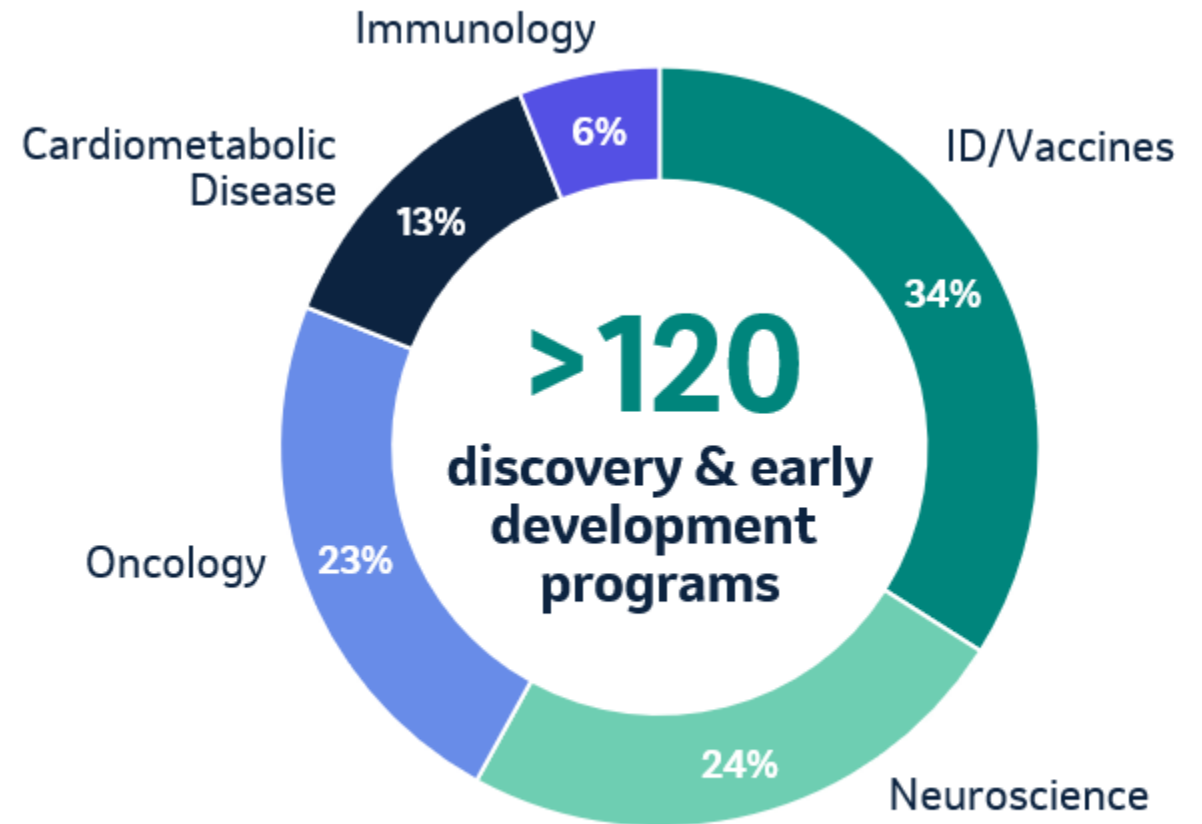
- Completed acquisition of Acceleron with ongoing integration
- Phase 3 program studying sotatercept for pulmonary arterial hypertension on track

1. On clinical hold

Extensive research efforts across multiple therapeutic areas and modalities

Executing on our strategy to:

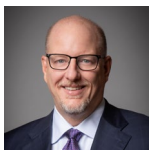
- **Become** the leading oncology company by 2025 and ensure that position is durable beyond
- **Extend** our impact across cardiometabolic, immunology, infectious diseases, neuroscience and vaccines
- **Advance** internal pipeline and augment with external assets



% of programs per area
Programs under other research areas are included within above categories



Q&A



Rob Davis
President & Chief Executive Officer



Caroline Litchfield
Chief Financial Officer



Dr. Dean Li
President, Merck Research Laboratories



Peter Dannenbaum
Vice President, Investor Relations



Appendix

Q4 2021 continuing operations GAAP financial results summary:

\$ in billions, except EPS amounts

	Q4 2021	Q4 2020	Change	Change Ex-FX
Sales	\$13.5	\$10.9	+24%	+23%
Operating Expenses	\$5.9	\$8.4	-30%	-30%
Tax Rate	2.2%	-2.7%	+4.9%	N/A
GAAP EPS	\$1.51	(\$1.03)	+>100%	+>100%

2021 continuing operations GAAP financial results summary:

\$ in billions, except EPS amounts

	2021	2020	Change	Change Ex-FX
Sales	\$48.7	\$41.5	+17%	+16%
Operating Expenses	\$21.9	\$22.4	-2%	-3%
Tax Rate	11.0%	22.9%	-11.9pts	N/A
GAAP EPS	\$4.86	\$1.78	+ >100%	+ >100%

2021 continuing operations non-GAAP financial results summary:

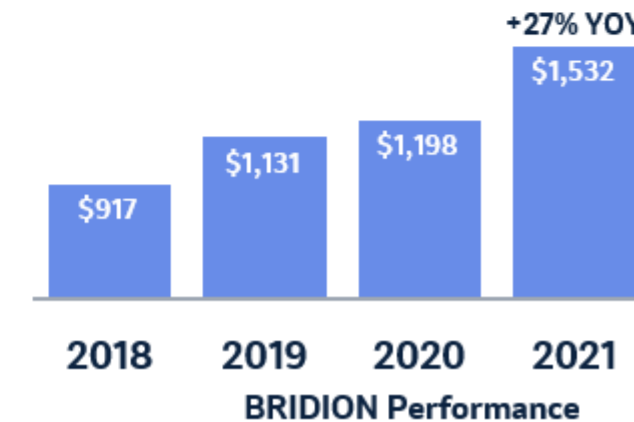
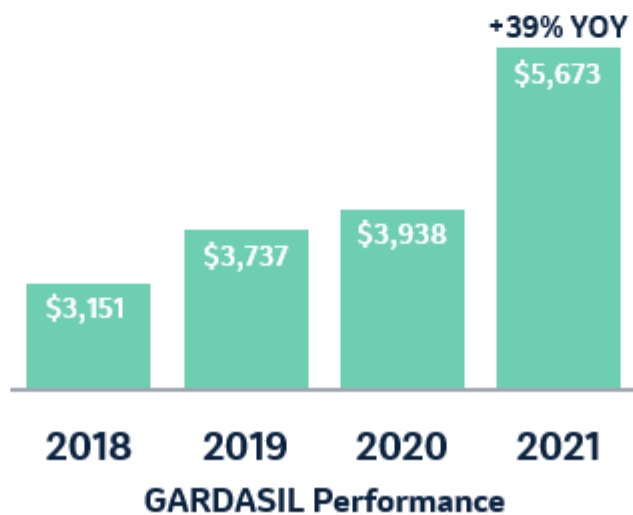
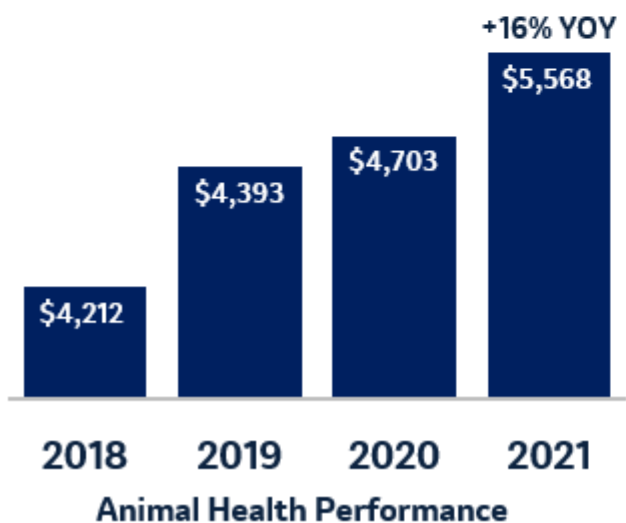
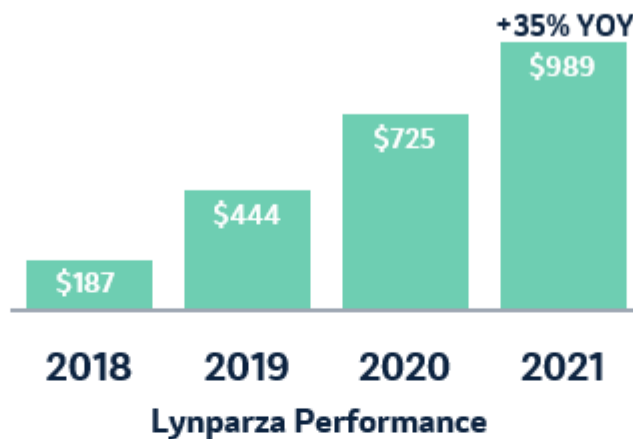
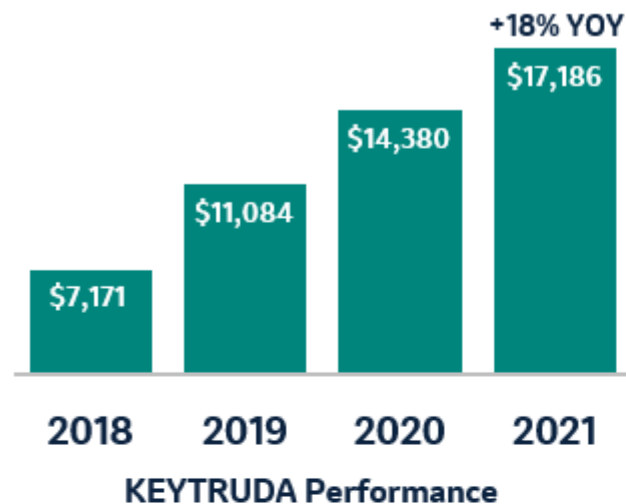
Delivered strong revenue and EPS growth

\$ in billions, except EPS amounts

	2021	2020	Change	Change Ex-FX
Sales	\$48.7	\$41.5	+17%	+16%
Non-GAAP Gross Margin¹	76.1%	76.3%	-0.2pts	-0.3pts
Operating Expenses	\$19.4	\$17.7	+9%	+8%
Tax Rate	11.2%	15.2%	-4.0pts	N/A
Non-GAAP EPS that excludes certain items¹	\$6.02	\$4.53	+33%	+32%

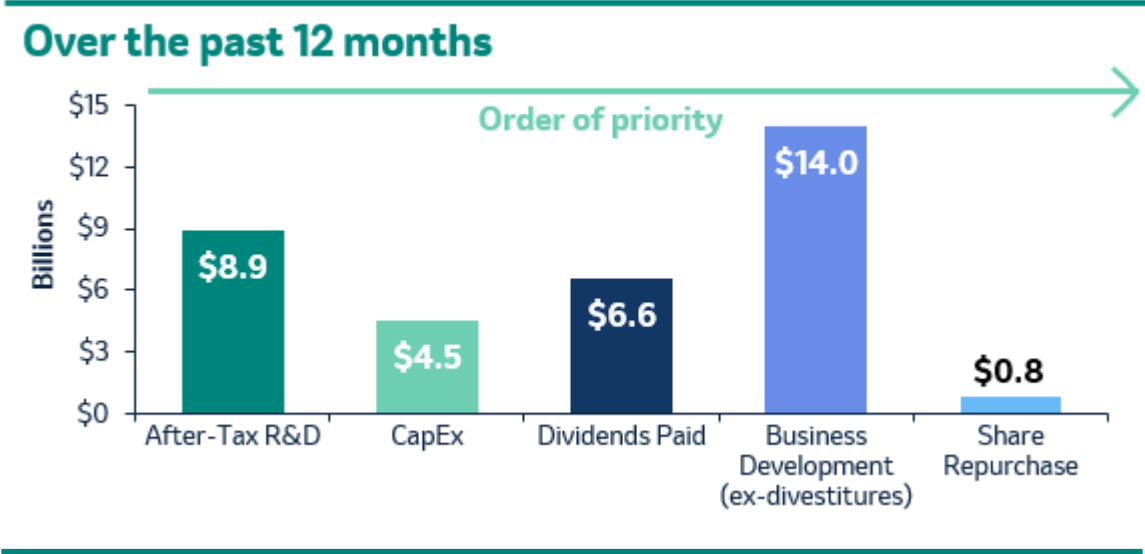
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2021: key pillars driving strong growth over the past four years¹



1. All growth rates exclude the impact of foreign exchange 2. In millions

Capital allocation: Trailing twelve months

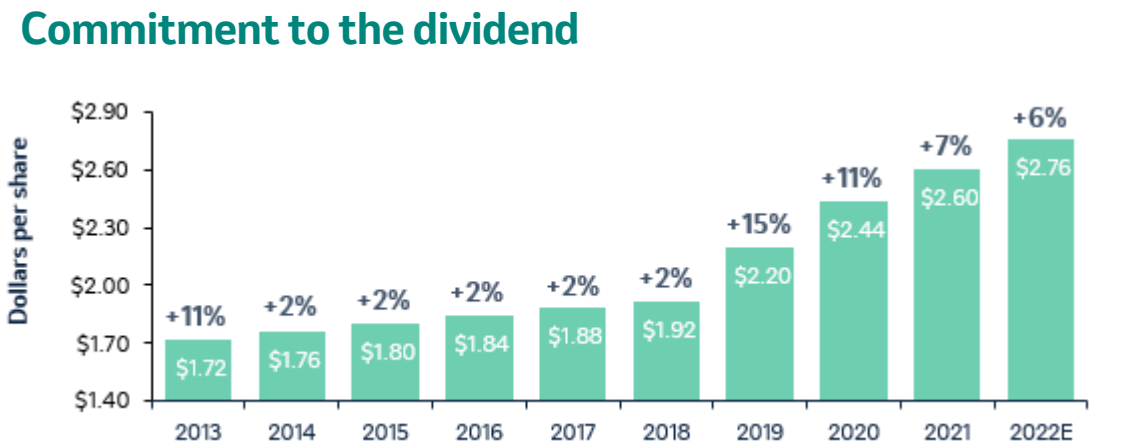


Capital investments
2021 to 2025

~\$20B

Over 5 years, including expanding manufacturing capacity for Oncology, Vaccines, and Animal Health. Includes >\$10B in the U.S.

Well positioned balance sheet with capacity to fund **additional value-enhancing business development opportunities**



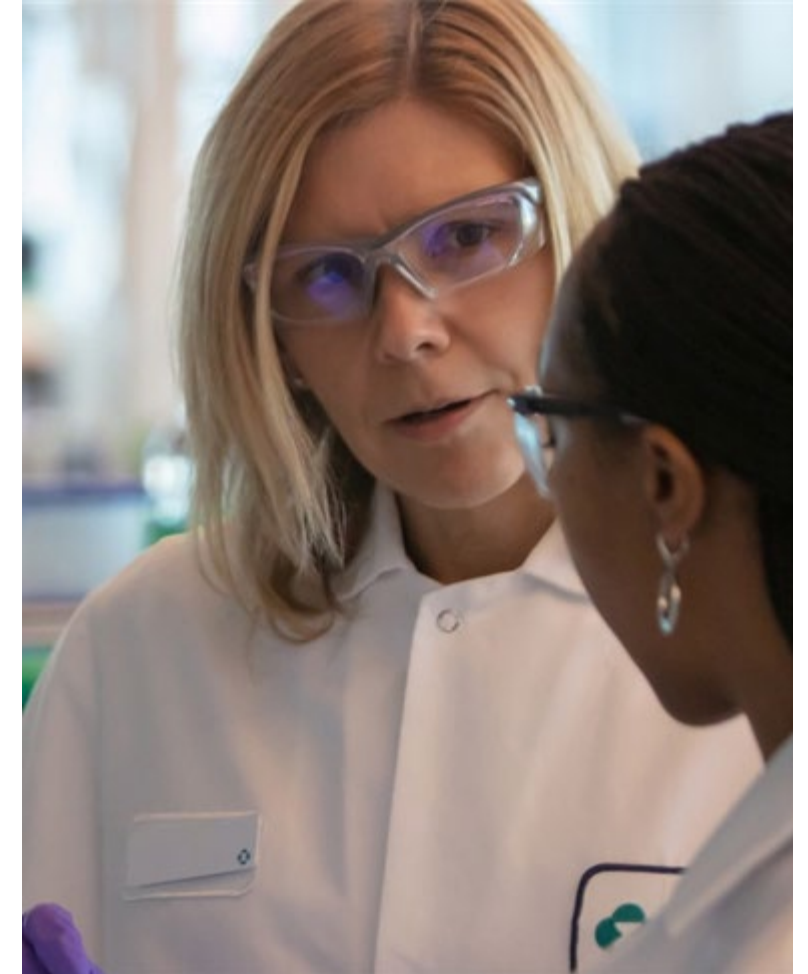
Driving value for patients and shareholders by progressing our pipeline

Key regulatory milestones since the last earnings call:

- In the U.S., received approval for KEYTRUDA as adjuvant therapy for certain patients with RCC based on KN-564 and as adjuvant treatment for patients with stage IIB and IIC melanoma based on KN-716
- Received FDA Emergency Use Authorization for molnupiravir as well as authorization in other markets
- FDA granted priority review for VAXNEUVANCE in the pediatric setting and for Lynparza in certain early-stage breast cancers based on OlympiA
- In the EU, received approvals for KEYTRUDA in adjuvant RCC based on KN-564, for KEYTRUDA+lenvatinib¹ in advanced RCC based on KN-581 and in endometrial cancer based on KN-775, as well as for VAXNEUVANCE in adults
- In Japan, received approvals for KEYTRUDA in esophageal cancer based on KN-590 and endometrial cancer based on KN-775 as well as gefapixant

Key data and presentations since the last earnings call:

- Presented data for KEYTRUDA at SMR, SITC and ASCO GI, for MK-2140 (ROR1-ADC) at ASH, for molnupiravir at ASTMH, and for MK-0616 (oral PCSK9 inhibitor) at AHA
- Initiated Phase 3 trial studying Verquvo in patients with chronic heart failure and reduced ejection fraction who have not had a recent worsening heart failure event
- Announced topline results for KEYTRUDA as adjuvant treatment for patients with NSCLC based on KN-091



1. Brand name in Europe is KYSPLIX for RCC and LENVIMA for endometrial

Broad and innovative pipeline to solve significant unmet medical needs

Phase 2					Phase 3	Under regulatory review
Oncology					Oncology	Oncology
KEYTRUDA (MK-3475) Advanced Solid Tumors	MK-4280 (favezelimab) NSCLC	V937 Melanoma	MK-1308A (quavonlimab/pembrolizumab) Advanced Solid Tumors	MK-2140 Breast	KEYTRUDA (MK-3475) Biliary Tract	KEYTRUDA (MK-3475) MSI-H or dMMR Endometrial (US)
LYNPARZA (MK-7339) Advanced Solid Tumors	Hematological Malignancies	CSCC	HCC	NSCLC	cSCC (EU)	TMB-H (JPN)
	LENVIMA (MK-7902) Biliary Tract	HNSCC	CRC	Heme	Gastric (EU)	Adjuvant RCC (JPN)
MK-6440 (ladiratuzumab vedotin) Breast	Glioblastoma	Solid Tumors	SCLC		Hepatocellular (EU)	Melanoma (EU)
NSCLC	Prostate	MK-4280A (favezelimab/pembrolizumab) RCC	Melanoma	MK-4830 NSCLC	Mesothelioma	High-risk early stage TNBC (EU, JPN)
SCLC	Pancreas	SCLC		SCLC	Ovarian	Cervical (EU, JPN)
HNSCC			TUKYSA (MK-7119) Advanced Solid Tumors	MK-0482 NSCLC	Prostate	
Esophageal	MK-7684A (vibostolimab/pembrolizumab) Biliary	WELIREG (MK-6482) Rare Cancers	Colorectal	MK-1308 NSCLC	SCLC	LENVIMA (MK-7902) 1L HCC (US)
Gastric	Cervical	CRC	Gastric	MK-7684A NSCLC		Advanced unresectable RCC (JPN)
Prostate	Esophageal	Pancreatic	Endometrial		WELIREG (MK-6482) RCC	LYNPARZA (MK-7339) Prostate cancer (EU)
Melanoma	Breast	Biliary	Bladder	MK-5890 NSCLC	TUKYSA (MK-7119) Breast	Adjuvant breast cancer (US, EU)
	HNSCC	HCC	Biliary	MK-4280A CRC		
MK-1026 Hematological Malignancies	HCC	Certain VHL tumors (EU)	Cervical		MK-3475 subcutaneous NSCLC	
	Endometrial					Vaccines
	Prostate					V114 Pneumoconjugate Vaccine, adult (JPN), pediatric (US)
	Hematological Malignancies					
Vaccines	Neuroscience	General medicine			Infectious diseases	General medicine
V116 Pneumococcal, adult	MK-8189 Schizophrenia	MK-7075 Overgrowth Syndrome			MK-8591A (doravirine/islatravir) ¹ HIV-1 Infection	Gefapixant (MK-7264) Cough (US, EU)
V184 Chikungunya Virus	Infectious diseases	MK-1942 Treatment Resistant Depression			Islatravir (MK-8591) ¹ HIV-1 prevention	CUBICIN (MK-3009) cSST & Sepsis, pediatric (JPN)
Cardiovascular	MK-8591B (islatravir/MK-8507) ¹ HIV-1 Infection	MK-3655 NASH			Vaccines	
MK-5475 Pulmonary Arterial Hypertension	MK-8591D (islatravir/lenacapavir) ¹ HIV-1 Infection	MK-6024 NASH			MK-1654 Respiratory Syncytial Virus	
MK-2060 Cardiovascular					Cardiovascular	
					Sotatercept (MK-7962) Pulmonary Arterial Hypertension	