MERCK
INVENTING FOR LIFE

Merck
Q1 2022 Earnings

April 28, 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 Annual Report on Form 10-K for the year ended December 31, 2021 and the company's other filings with the Securities and Exchange Commission (SEC) available at the SEC's Internet site (www.sec.gov).

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Strategy & Business Update

Rob Davis
President & Chief Executive Officer



Delivered on our key strategic priorities Q1



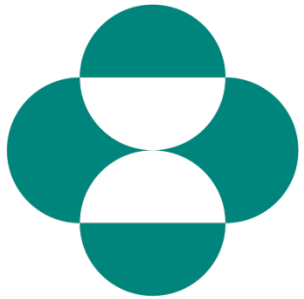
- Achieved strong commercial and financial performance
- Advanced the pipeline to meet patient unmet need
- Executed on strategic business development to enhance pipeline
- Created long-term value for patients and shareholders

Merck achieved excellent Q1 financial performance[1]

WORLDWIDE SALES[1]

$15.9B

+50% growth
Ex-LAGEVRIO, +19% growth



Merck

NON-GAAP EPS

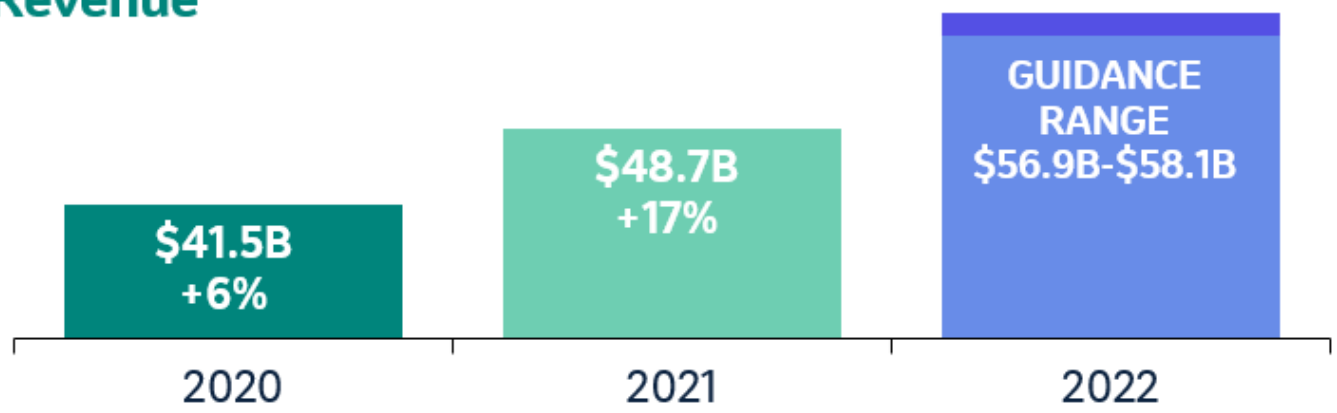
$2.14

+84% growth

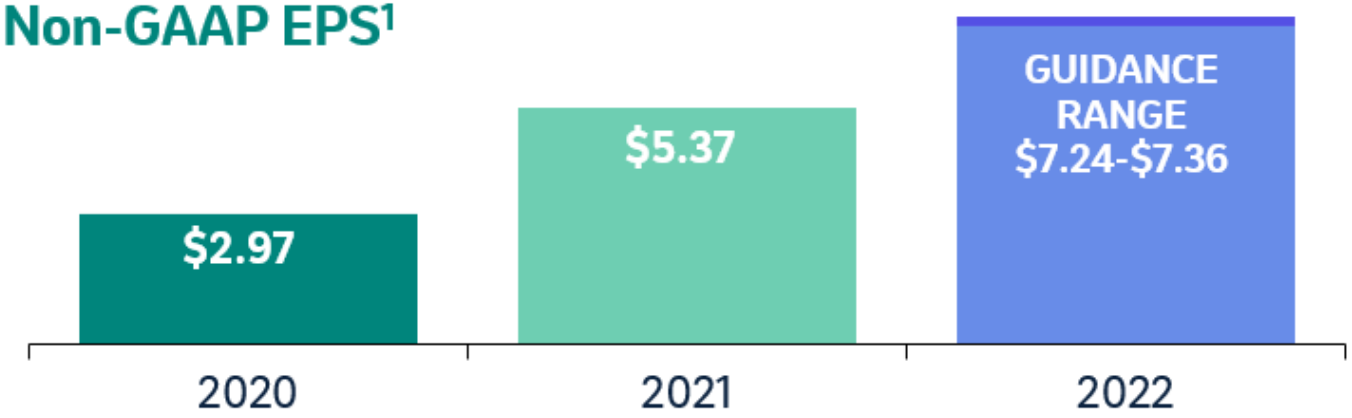
1. Results from continuing operations attributable to Merck & Co., Inc.

Expect continued strong growth in revenues and earnings

Revenue



Non-GAAP EPS[1]



Longer term…

Revenue growth

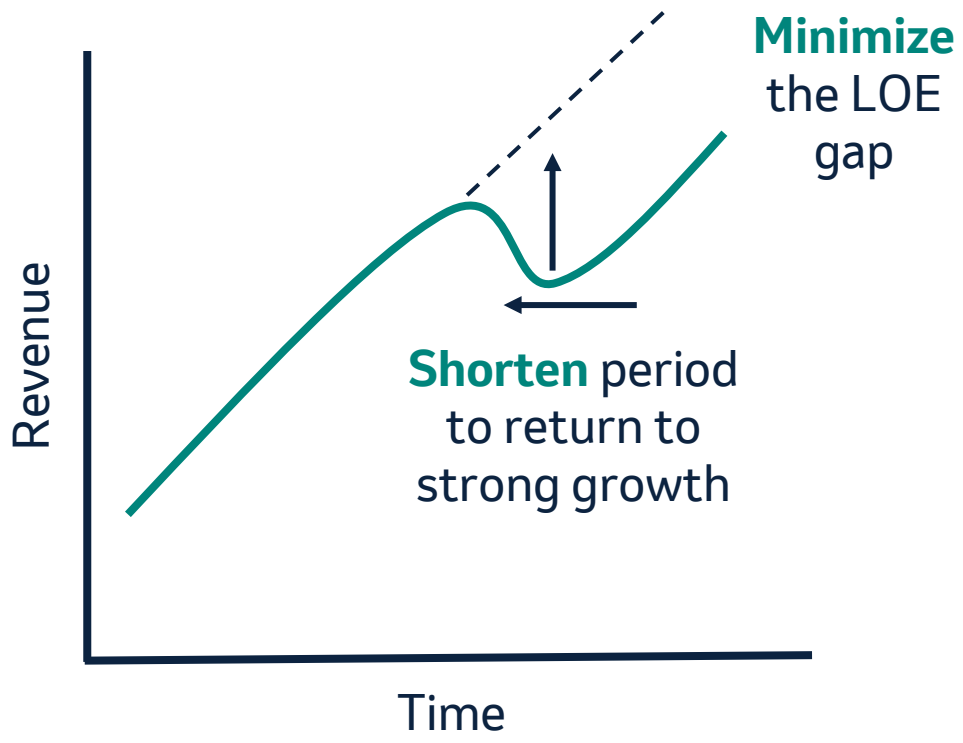
Delivering visible de-risked revenue growth through 2025

Operating margin expansion

Commitment to drive leverage in the P&L with operating margins[2] >43% by 2025

1. Beginning in 2022, Merck will no longer exclude expenses for upfront and milestone payments related to collaborations and licensing agreements, or charges related to pre-approval assets obtained in transactions accounted for as asset acquisitions from its non-GAAP results. For 2020, non-GAAP results have been recast to include $4.2 billion of incremental R&D expenses, which reduced EPS by $1.56. For 2021, non-GAAP results have been recast to include $1.7 billion of incremental R&D expense, which reduced EPS by $0.65. 2. Non-GAAP operating margins.

Multiple levers to navigate the KEYTRUDA LOE



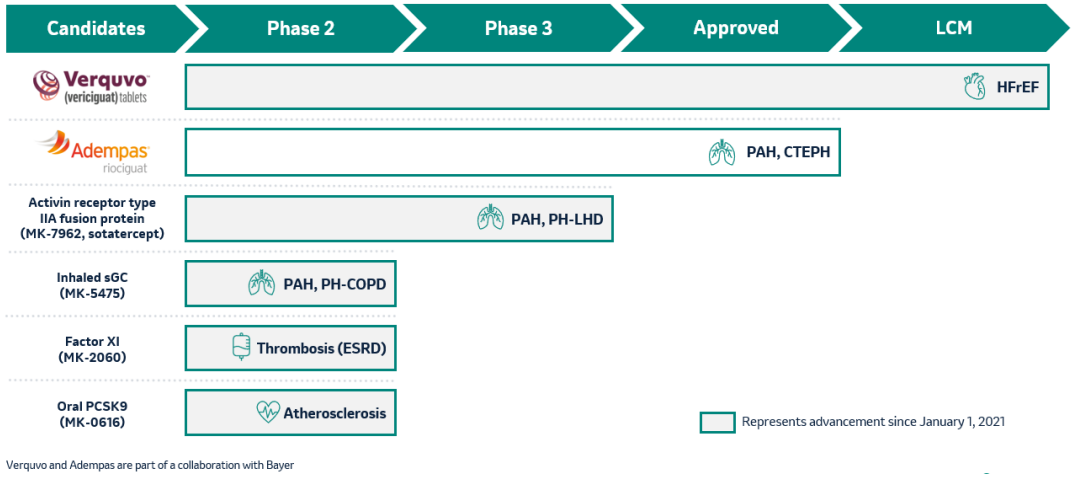
- **Leverage** leadership in oncology
- **Enhance** durable growth drivers
- **Deploy cash flow** from key assets to business development
- **Advance pipeline** across key therapeutic areas

Chart not to scale.

Increasing transparency into our business

Cardiovascular event

- Highlighted broad and growing cardiovascular pipeline and portfolio
- Eight potential approvals across cardiovascular pipeline expected by 2030



Verquvo and Adempas are part of a collaboration with Bayer

ESG event

- Highlighted our ESG priority areas and outlined our long-term strategy
- ESG approach grounded in Merck's core values



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Business/Financial Results and Outlook

Caroline Litchfield
Chief Financial Officer



Strong Q1 sales growth across Human Health and Animal Health

Merck

WORLDWIDE SALES[1,2,3]

$15.9B

+ 50% growth
+19% ex-LAGEVRIO[4]
+21% ex-exchange, ex-LAGEVRIO[5]



Human Health[3]

$14.1B

+53% growth
+18% ex-LAGEVRIO[4]
+21% ex-exchange, ex-LAGEVRIO[5]



Animal Health

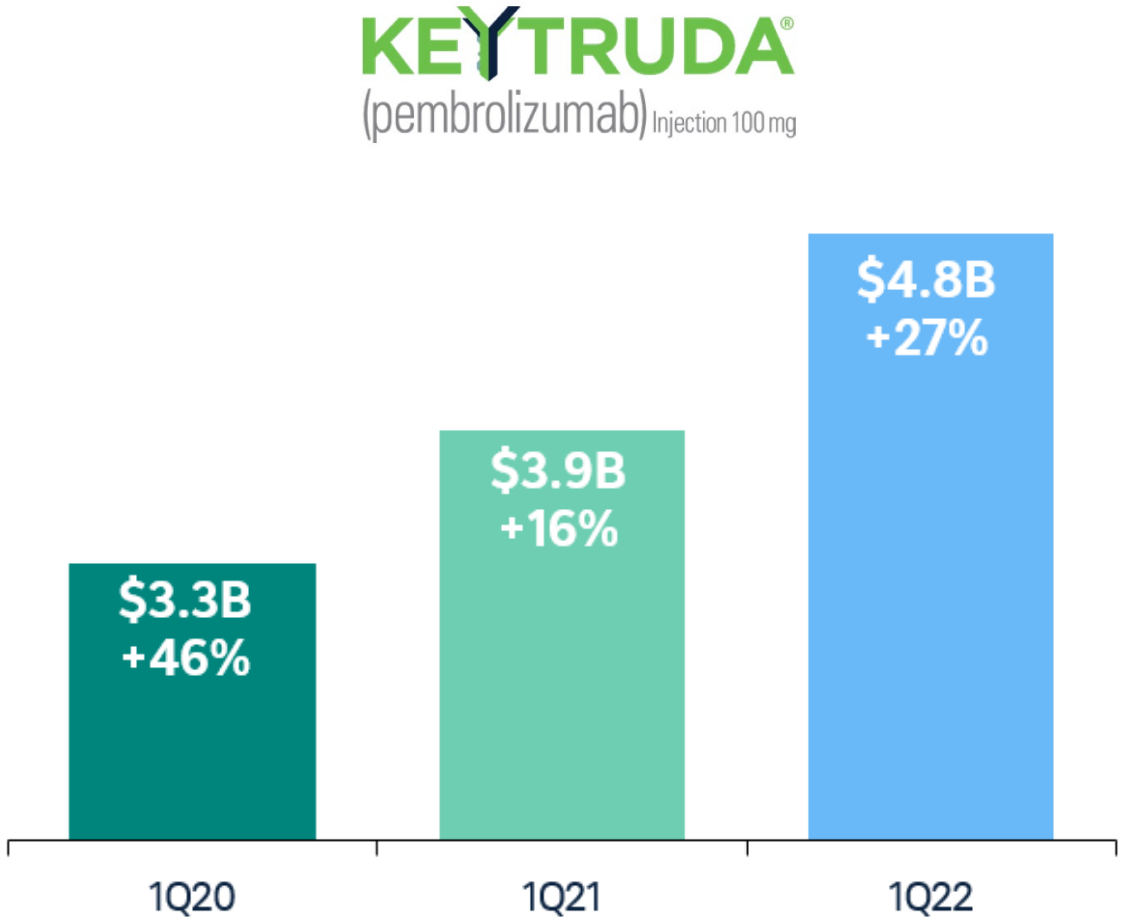
$1.5B

+4% growth
+9% ex-exchange

1. Results from continuing operations attributable to Merck & Co., Inc. 2. Worldwide Sales includes Other Revenue 3. In 1Q 2021 human health had ~$500M of negative pandemic impact 4. Excludes LAGEVRIO sales of $3.2 billion in the quarter 5. Excludes LAGEVRIO sales of $3.2 billion in the quarter and foreign exchange

Oncology: KEYTRUDA drives continued momentum

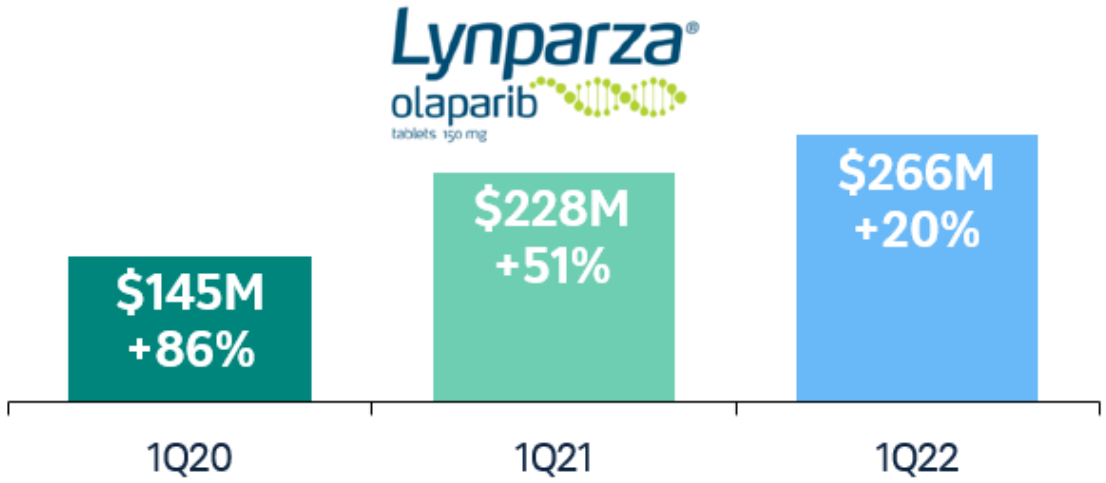
- KEYTRUDA sales of $4.8B increased 27% year-over-year, driven by momentum across key tumor types and recent launches
  - In the U.S., sales of $2.8B driven by growth across key tumor types, including continued leadership in lung, as well as recent earlier-stage cancer launches in TNBC, RCC and melanoma
  - Ex-U.S., 26% growth was driven by global uptake in lung as well as HNSCC and RCC
- KEYTRUDA will continue to expand into earlier lines of therapy
  - KEYTRUDA is approved in 5 early-stage cancers
  - More than half of KEYTRUDA's growth will come from indications in earlier-stage treatment settings through 2025, and will represent approximately 25% of total KEYTRUDA revenue

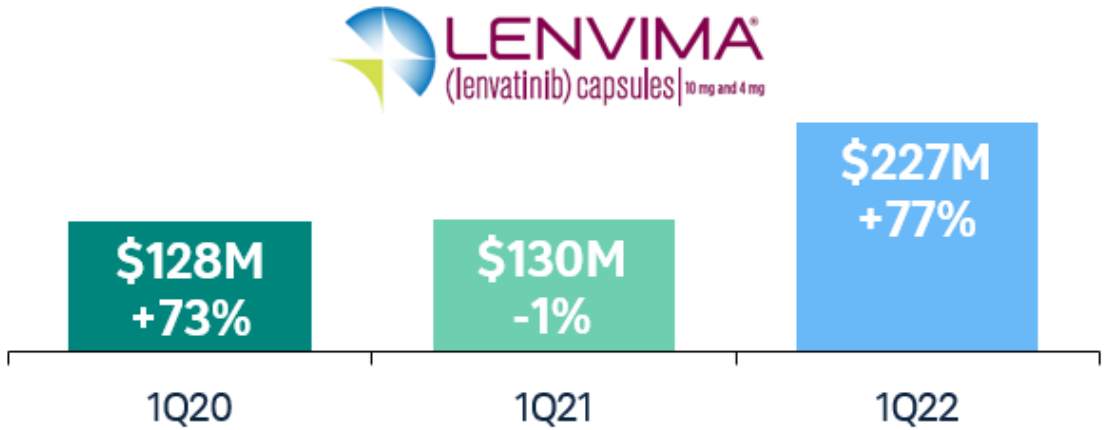


Growth rates exclude the impact of foreign exchange.

Oncology: Strong growth across broad portfolio

- Lynparza sales increased 20%, with growth driven by continued uptake in metastatic breast cancer
  - Opportunity in early-stage breast following OlympiA approval
  - Potential to expand further in metastatic castration-resistant prostate based on encouraging PROpel trial results
- Lenvima growth driven largely by recent launches in RCC and endometrial as well as HCC in China and certain one-time items
- WELIREG launching successfully in patients with certain VHL-associated tumors
  - Potential to expand to broader RCC indications in the future





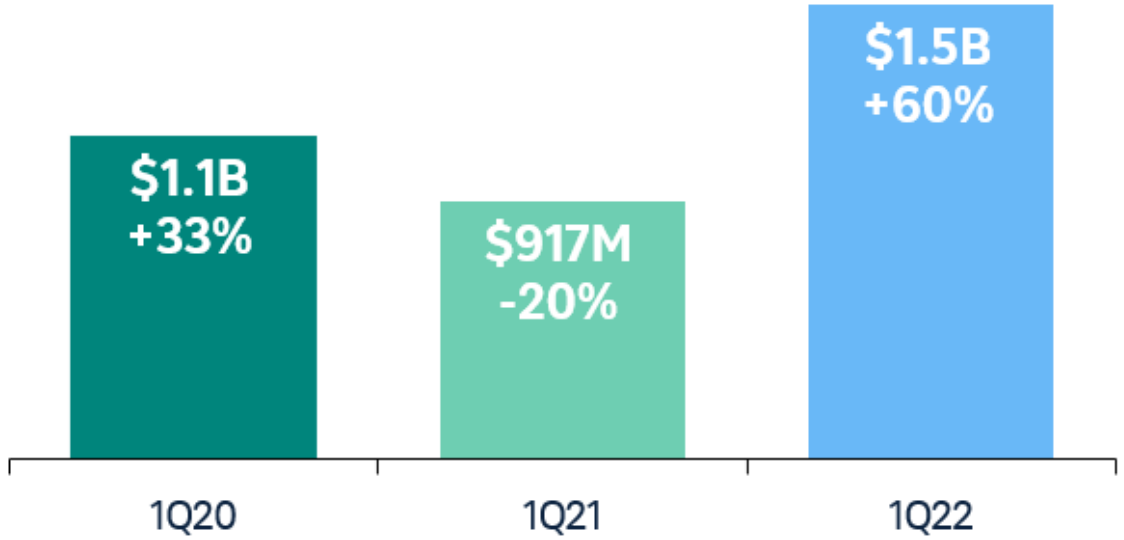
Increase/decrease in sales exclude the impact of foreign exchange.

Vaccines: GARDASIL growth reflects robust demand and improved supply

- GARDASIL sales of $1.5B increased 60% year-over-year driven by strong demand outside the U.S. and increased supply
  - Ex-U.S., growth was driven by robust demand, particularly in China, and increased supply
  - U.S. sales increased due to timing of CDC purchases

GARDASIL®
[Human Papillomavirus Quadrivalent (Types 6, 11, 16, and 18) Vaccine, Recombinant]

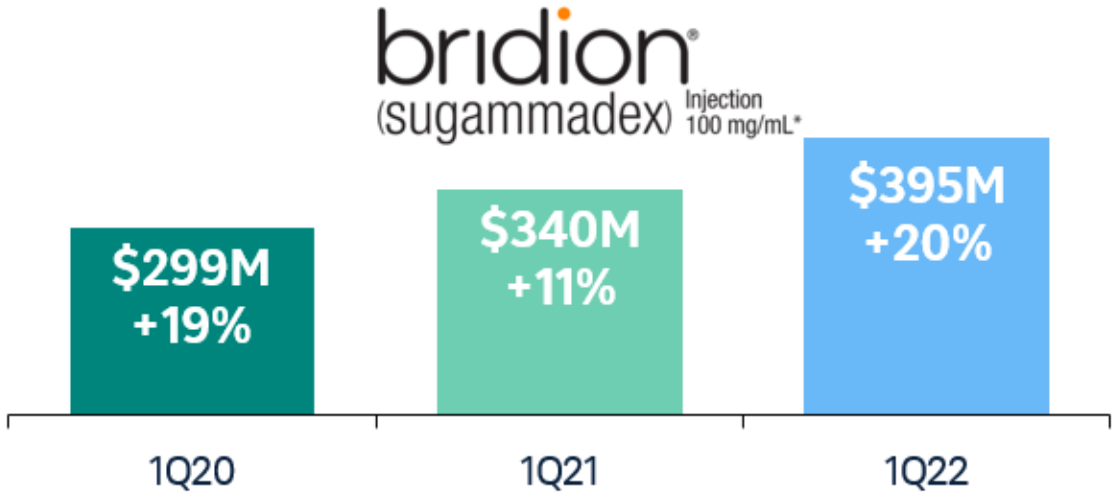
GARDASIL 9®
[Human Papillomavirus 9-valent Vaccine, Recombinant]

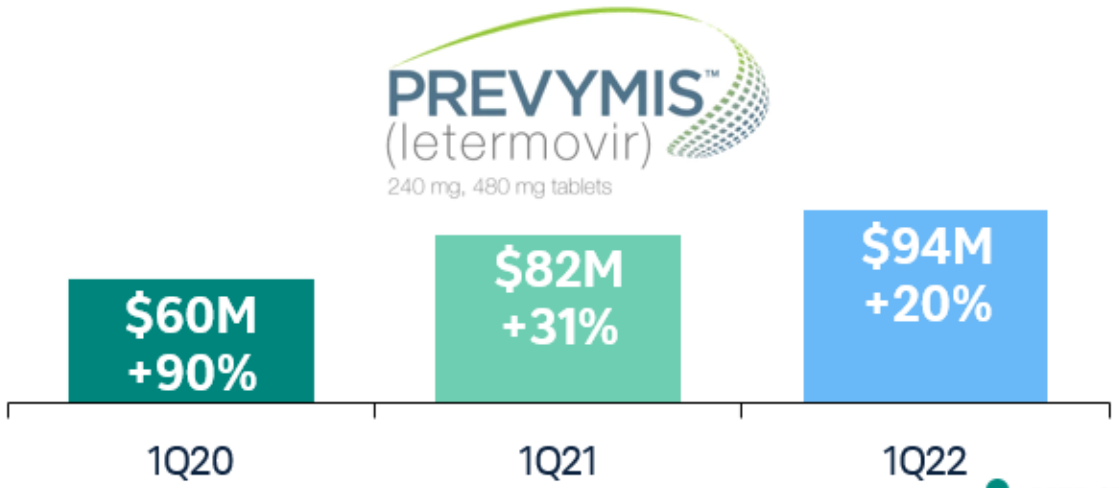


Increase/decrease in sales exclude the impact of foreign exchange.

Hospital: Strong global demand across products

- BRIDION sales of $395M increased 20% primarily due to the ongoing recovery in surgical procedures
- PREVYMIS sales grew 20%, driven by continued strong global demand
- ZERBAXA continued restocking and uptake following initiation of resupply in Q4 2021

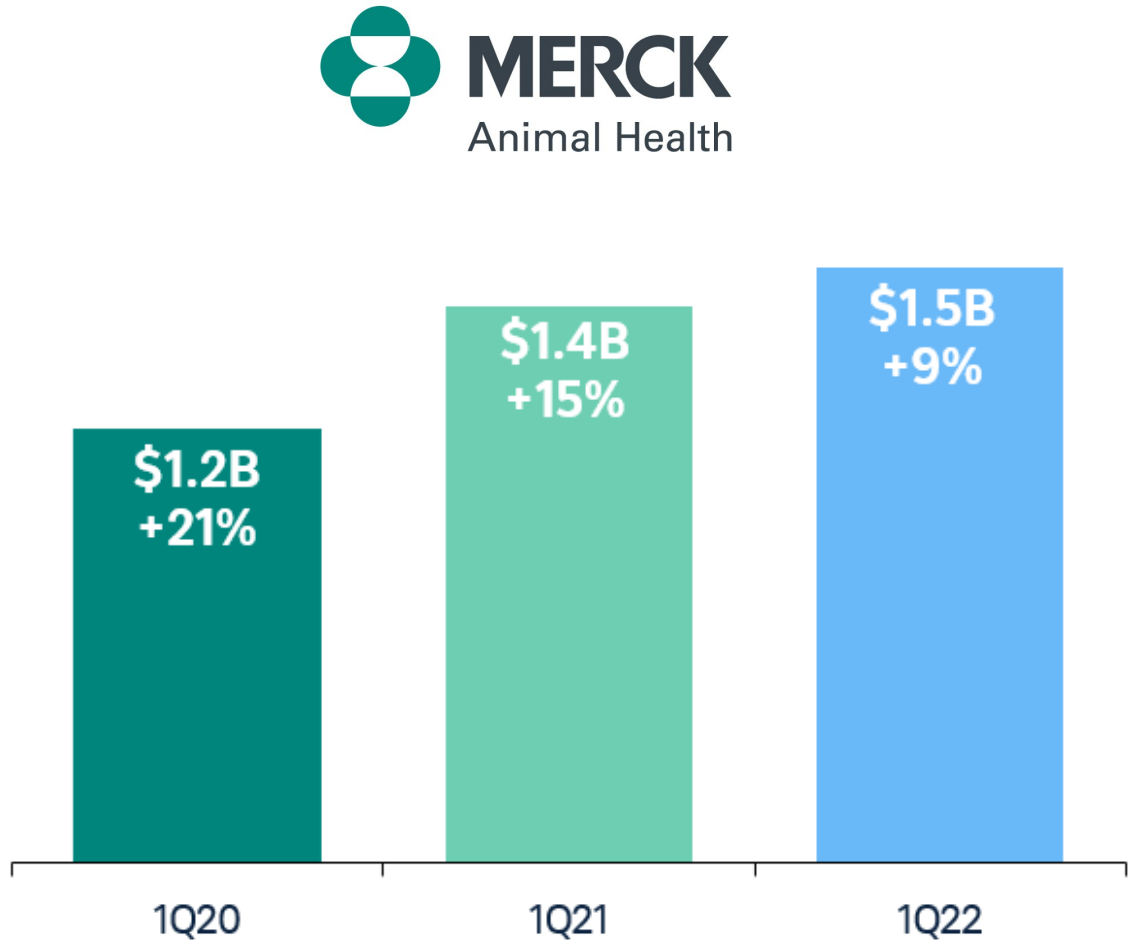




Growth rates exclude the impact of foreign exchange.

Animal Health: durable growth across portfolio

- Animal Health sales increased 9% to $1.5B, reflecting growth across geographies and segments
  - Companion Animal sales grew 13%, driven by the BRAVECTO parasiticide line of products and vaccines
  - Livestock sales increased 7% reflecting higher demand globally for ruminants and poultry products



Growth rates exclude the impact of foreign exchange.

Q1 2022 continuing operations non-GAAP financial results summary: Delivered strong revenue and EPS growth

$ in billions, except EPS amounts

	Q1 2022	Q1 2021	Change	Change Ex-FX
Sales	$15.9	$10.6	+50%	+52%
Non-GAAP Gross Margin	70.7%	76.6%	-5.9pts	-5.7pts
Non-GAAP Operating Expenses	$4.8	$4.6	+5%	+7%
Non-GAAP Tax Rate	14.0%	14.3%	-0.3pts	N/A
Non-GAAP EPS that excludes certain items	$2.14	$1.16	+84%	+89%

Merck is providing certain 2022 and 2021 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 because management uses non-GAAP results to assess performance. Management uses Non-GAAP 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 a non-GAAP pretax income metric. This information should be considered in addition to, but not as a substitute for or superior to, information prepared in accordance with GAAP. See 1Q22 earnings release for GAAP to non-reconciliation.

Merck updated full-year 2022 guidance

	Prior Guidance	Updated Guidance	Key Assumptions
Revenue	$56.1B to $57.6B +15% to +18% (+17% to +20% ex-FX)	$56.9B to $58.1B +17% to +19% (+19% to +21% ex-FX)	• +11% to +12% excluding LAGEVRIO and the impact from foreign exchange • Includes $5-5.5 billion of LAGEVRIO revenue • Assumes ~2% negative FX impact ○ Includes an incremental $200M headwind
Non-GAAP Gross Margin Rate[1]	~74.0%	74.0% - 74.5%	
Non-GAAP Operating Expenses[2]	Increase by mid-to-high single-digit rate	$20.3B to $21.3B	• Consistent with the midpoint implied by our prior guidance
Other (Income) / Expense	~$350M of expense	~$350M of expense	
Tax Rate[3]	~13.0-14.0%	~13.5-14.5%	• Reflects an increase in estimated U.S. taxes to be paid on foreign income
Shares Outstanding	~2.53B	~2.53B	
GAAP EPS	$5.76 to $5.91	$5.90 to $6.02	
Non-GAAP EPS[4,5]	$7.12 to $7.27	$7.24 to $7.36	• Now assumes ~2% negative FX impact (vs. prior ~1% negative FX impact)

1. GAAP Gross Margin Rate: ~68%. 2. GAAP Operating Expenses: $20.5 to $21.5 billion. 3. GAAP Tax Rate: ~12.5% - 13.5% 4. The GAAP to non-GAAP reconciliation is available in Merck's Q1 2022 earnings release 5. Beginning in 2022, Merck will no longer exclude expenses for upfront and milestone payments related to collaborations and licensing agreements, as well as charges related to pre-approval assets obtained in transactions accounted for as asset acquisitions from its non-GAAP results. Prior periods have been recast to reflect this change

Key modeling assumptions & outlook

LAGEVRIO

- Updated full year guidance of $5.0B to $5.5B
- Delivered ~6.4M of ~10M courses committed from supply and purchase agreements through Q1; expect approximately half of the remaining full-year revenue from LAGEVRIO in the second quarter

GARDASIL

- Expect very strong growth in 2022, particularly ex-U.S., driven by robust demand and increased supply
- Full year sales growth not anticipated to be at the same pace as 2021

Other Revenue

- Reflects ongoing supply sales to Organon as well as to Johnson & Johnson for its COVID vaccine
- Reflects revenue hedge and royalties
- Received ~$100M of payments related to out-licensing agreements in Q1

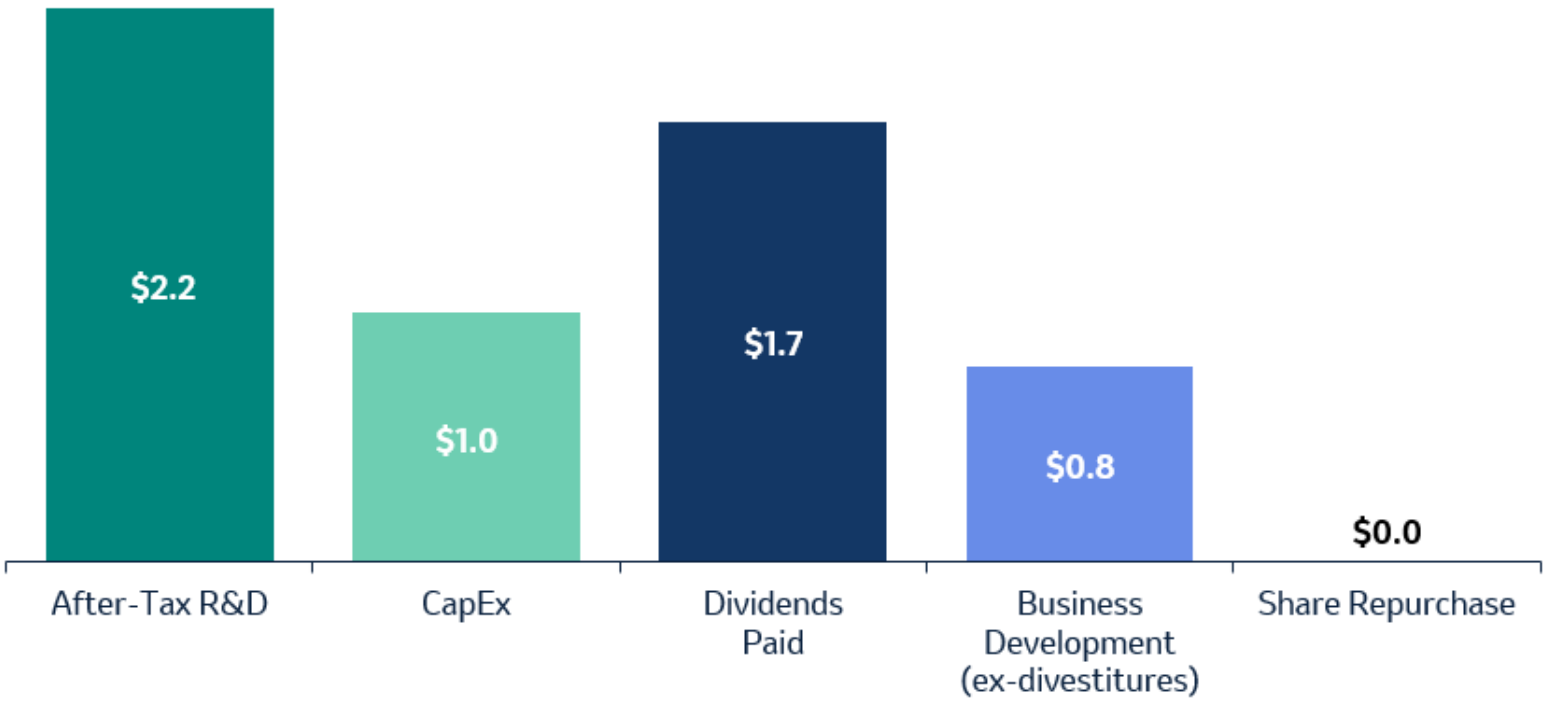
Financial Reporting

- Non-GAAP results will no longer exclude charges related to expenses for upfront and milestone payments related to collaborations and licensing agreements, or charges related to pre-approval assets obtained in transactions accounted for as asset acquisitions

Remain committed to balanced capital allocation strategy

$ Billions[1]

Capital allocation order of priority



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

1. Reflects Q1 spend

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Research Update

Dr. Dean Li
President, Merck Research Laboratories



Driving value for patients and shareholders by progressing our pipeline

Key regulatory milestones since the last earnings call:

- In the U.S., received FDA approval for Lynparza for adjuvant treatment of adults with gBRCAm, HER2-negative high-risk early breast cancer based on OlympiA and for KEYTRUDA in advanced endometrial cancer that is MSI-H or dMMR deficient based on KN-158 (Cohorts D & K)
- In the EU, received positive CHMP opinions for certain MSI-H tumors based on KN-158 and KN-164, recurrent or metastatic cervical cancer in certain patients based on KN-826 and neoadjuvant / adjuvant treatment for locally advanced or early stage TNBC based on KN-522
- In Japan, received approval for KEYTRUDA + Lenvima RCC based on KN-581 and KEYTRUDA approved for previously treated TMB-H based on KN-158

Key data & clinical advancements since the last earnings call:

- Presented data at ESMO Virtual Plenary for KN-091 and OlympiA, at ASCO GU for PROpel and at AACR for vibostolimab+pembrolizumab for the first time in ovarian and cervical cancers
- Presented data from the Phase 3 MOVe-OUT trial studying LAGEVRIO (molnupiravir) at ECCMID
- Following approval for KEYTRUDA as adjuvant treatment for melanoma (stage IIB and IIC) based on KEYNOTE-716, announced the study met its secondary endpoint of DMFS (distant metastasis-free survival)
- Announced breakthrough therapy designation for V116 and plans to move to Phase 3 clinical development
- Completed enrollment for the Phase 3 STELLAR trial studying sotatercept in PAH
- Presented real-world observational studies providing additional evidence of effectiveness of PREVYMIS in preventing CMV in adults undergoing allogeneic HCT



Continuing to expand, deepen and extend in oncology

Earlier-stage

- **Broadest** IO clinical development program
- **Six** FDA approvals in oncology
  - Received approval for **early-stage breast cancer** for Lynparza based on OlympiA
  - Following approval in **adjuvant melanoma**, KN-716, met key secondary endpoint of DMFS

Women's cancers

- **Expansive** program across multiple tumors
- Received **fourth FDA approval** in gynecologic cancers for KEYTRUDA
- Marks **fifth FDA approval** based on innovative trial design of KN-158

Prostate cancer

- **Robust** Phase 3 program
  - PROpel: Lynparza + abiraterone **reduced** the risk of disease progression or death by **34%** in mCRPC
  - KN-921: KEYTRUDA + docetaxel in mCRPC
  - KN-641: KEYTRUDA + enzalutamide in mCRPC

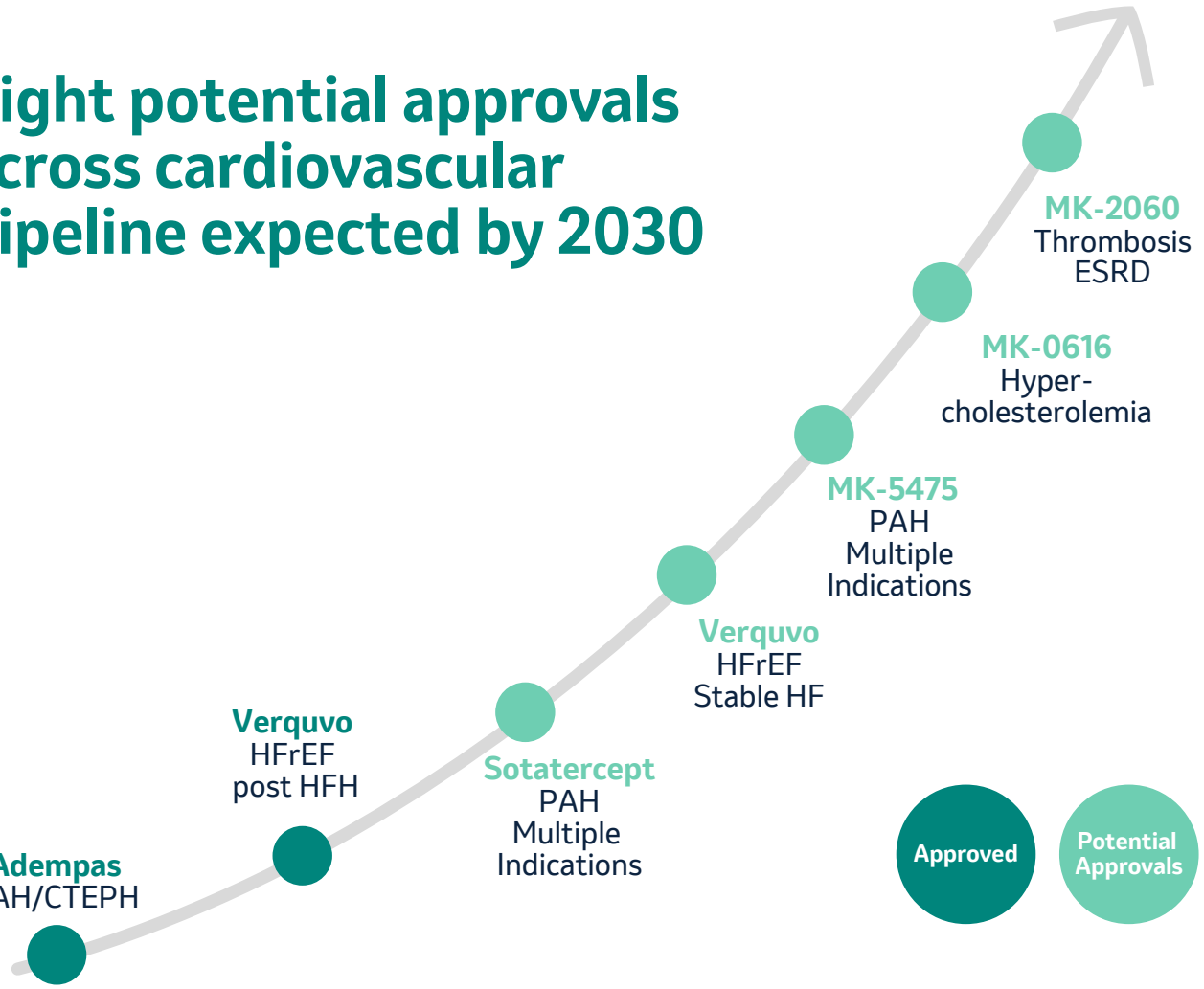
Global highlights

- **Positive CHMP opinions**:
  - Cervical cancer based on KN-826
  - MSI-H or dMMR tumors in five cancer types based on KN-158 and KN-164
  - Neoadjuvant / adjuvant treatment for locally advanced or early stage TNBC based on KN-522
- **Approval** for renal cell carcinoma based on KN-581 in Japan

Cardiovascular portfolio well positioned for growth

- **Completed enrollment** for the **STELLAR** trial, evaluating sotatercept in PAH, ahead of schedule
- **Verquvo** included in the 2022 AHA, ACC and HFSA guideline as a level 2b recommendation
- Ongoing **VICTOR** study designed to **broaden opportunity** for Verquvo

Eight potential approvals across cardiovascular pipeline expected by 2030



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

- Pandemic continues to evolve with **regional surges**
- Recent variants appear to be resistant to specific monoclonal antibody regimens and able to evade vaccine protection
- **Accessible** therapeutic options are needed for appropriate high-risk patients
- LAGEVRIO is **well-positioned** to play a role due to its key attributes:
  - **Oral** treatment option
  - **Low** propensity for **drug-drug interactions**
  - **High barrier** to resistance



Pipeline updates and progress

Population-specific pneumococcal vaccine development program

VAXNEUVANCE adults

- Sequence of VAXNEUVANCE and PNEUMOVAX 23 is an option recommended by CDC for adults 65+, and for adults 19 to 64 with certain underlying medical conditions or other risk factors
- Sequence offers patients a **strong immune response** together with the **broadest serotype coverage**

VAXNEUVANCE pediatrics

- Under review by the FDA [PDUFA: July 1]
- Provided requested analyses to the FDA; no additional studies requested
- Potential to **maintain existing protection** and **prevent additional** disease

V116 adults

- Received **Breakthrough Therapy Designation** by the FDA
- Designed to **target serotypes responsible for ~85% of residual disease** in the adult 65+ population[1]
- Full results from the Phase 1/2 trial studying V116 to be presented at ISPPD in June 2022
- Planning to enter **Phase 3 in 2022**

V117 pediatrics

- **Targeted approach** to pediatric development in Phase 1 clinical development

1. Centers for Disease Control and Prevention, IPD serotype data 2019, as compiled from data provided through Active Bacterial Core surveillance (ABCs).

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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

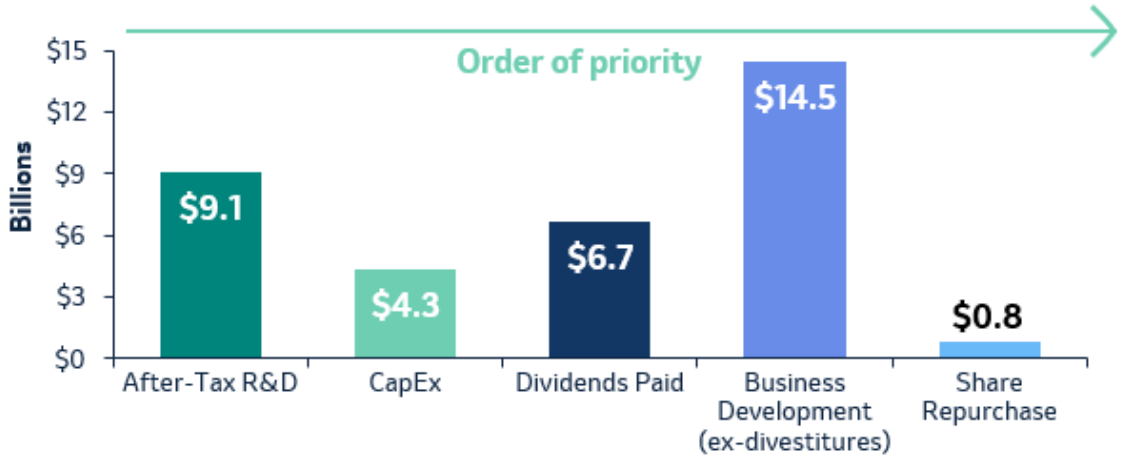
Q1 2022 continuing operations GAAP financial results summary

$ in billions, except EPS amounts

	Q1 2022	Q1 2021	Change	Change Ex-FX
Sales	$15.9	$10.6	+50%	+52%
Operating Expenses	$4.9	$4.6	+7%	+8%
Tax Rate	11.4%	8.0%	+3.4pts	N/A
GAAP EPS	$1.70	$1.08	+57%	+62%

Capital allocation: Trailing twelve months

Over the past 12 months



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

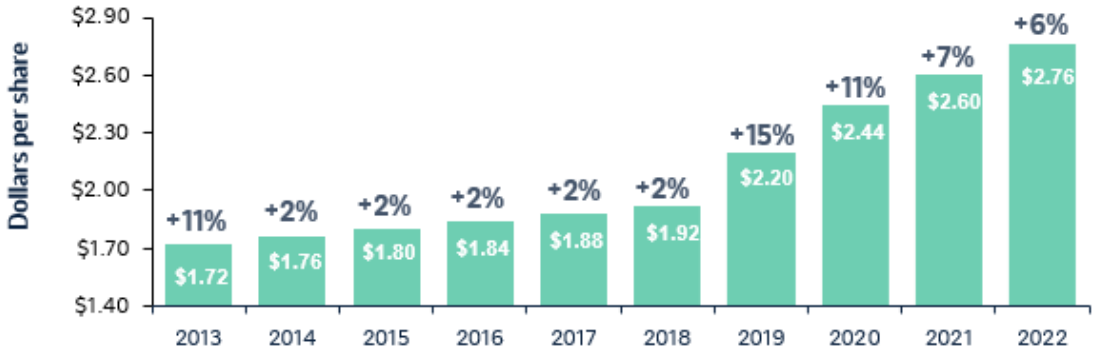
Capital investments

2021 to 2025

~$20B

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

Commitment to the dividend



Broad and innovative pipeline to solve significant unmet medical needs

Phase 2

Oncology

KEYTRUDA (MK-3475)
Advanced Solid Tumors

LYNPARZA (MK-7339)
Advanced Solid Tumors

MK-6440 (ladiratuzumab vedotin)
Breast
NSCLC
SCLC
HNSCC
Esophageal
Gastric
Prostate
Melanoma

MK-1026 (nemtabrutinib)
Hematological Malignancies

MK-4280 (favezelimab)
NSCLC
Hematological Malignancies

LENVIMA (MK-7902)
Biliary
Glioblastoma
Prostate
SCLC
Pancreas

MK-7684A (vibostolimab+ pembrolizumab)
Biliary
Cervical
Esophageal
Breast
HNSCC
HCC
Endometrial
Prostate
Hematological Malignancies

V937
Melanoma
Breast
CSCC
HNSCC
Solid Tumors

MK-4280A (favezelimab+pembrolizumab)
RCC
SCLC

WELIREG (MK-6482)
Rare Cancers
CRC
Pancreatic
Biliary
HCC
Certain VHL tumors (EU)

MK-1308A (quavonlimab+ pembrolizumab)
Advanced Solid Tumors
HCC
CRC
SCLC
Melanoma

TUKYSA (MK-7119)
Advanced Solid Tumors
CRC
Gastric
Endometrial
NSCLC
Bladder
Biliary
Cervical

MK-7684 (vibostolimab)
Melanoma

MK-2140
Breast
NSCLC
Heme
Solid Tumors

MK-4830
NSCLC
SCLC
RCC
CRC

MK-0482
NSCLC

MK-1308 (quavonlimab)
NSCLC

MK-5890
NSCLC
SCLC

Vaccines

V116
Pneumococcal, adult

V184
Chikungunya Virus

Cardiovascular

MK-5475
Pulmonary Arterial Hypertension

MK-2060
Cardiovascular

MK-0616
Hypercholesterolemia

Neuroscience

MK-8189
Schizophrenia

Infectious diseases

MK-8591B (islatravir+MK-8507)[1]
HIV-1 Infection

MK-8591D (islatravir+lenacapavir)[1]
HIV-1 Infection

General medicine

MK-7075
Overgrowth Syndrome

MK-1942
Treatment Resistant Depression

MK-3655
NASH

MK-6024
NASH

1. On clinical hold

Phase 3

Oncology

KEYTRUDA (MK-3475)
Biliary Tract
cSCC (EU)
Gastric (EU)
Hepatocellular (EU)
Mesothelioma
Ovarian
Prostate
SCLC

MK-1308A (quavonlimab +pembrolizumab)
RCC

MK-7684A (vibostolimab + pembrolizumab)
NSCLC
SCLC

MK-4280A (favezelimab + pembrolizumab)
CRC

LENVIMA (MK-7902)
HNSCC
Melanoma
CRC
Esophageal
NSCLC
Gastric

LYNPARZA (MK-7339)
NSCLC
SCLC
CRC

WELIREG (MK-6482)
RCC

TUKYSA (MK-7119)
Breast

MK-3475 (pembrolizumab subcutaneous)
NSCLC

Infectious diseases

MK-8591A (doravirine+islatravir)[1]
HIV-1 Infection

Islatravir (MK-8591)[1]
HIV-1 prevention

Molnupiravir (MK-4482)
COVID-19 antiviral

Vaccines

MK-1654
Respiratory Syncytial Virus

Cardiovascular

Sotatercept (MK-7962)
Pulmonary Arterial Hypertension

Under regulatory review

Oncology

KEYTRUDA (MK-3475)
MSI-H or dMMR Six Tumor Basket (EU)
Adjuvant RCC (JPN)
Adjuvant Melanoma (EU)
High-risk early stage TNBC (EU, JPN)
Cervical (EU, JPN)
2L HCC (US)

LENVIMA (MK-7902)
1L HCC (US)

LYNPARZA (MK-7339)
Prostate cancer (EU)
Adjuvant breast cancer (EU, JPN)

Vaccines

V114
Pneumoconjugate Vaccine, adult (JPN), pediatric (US)

General medicine

Gefapixant (MK-7264)
Cough (US, EU)

CUBICIN (MK-3009)
cSST & Sepsis, pediatric (JPN)

Infectious diseases

Molnupiravir (MK-4482)
COVID-19 antiviral (EU)

As of April 28, 2022