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# Merck
# Q4 2022 Earnings

February 2, 2023

# Agenda

## Strategy and Business Update

**Rob Davis**
Chairman and 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., Rahway, N.J., USA

This presentation of Merck & Co., Inc., Rahway, 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**
Chairman and Chief Executive Officer

# Delivered on our key strategic priorities in 2022

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

# Exceptional 2022 sales and underlying earnings growth[1]

## 4Q Worldwide Sales

$13.8B

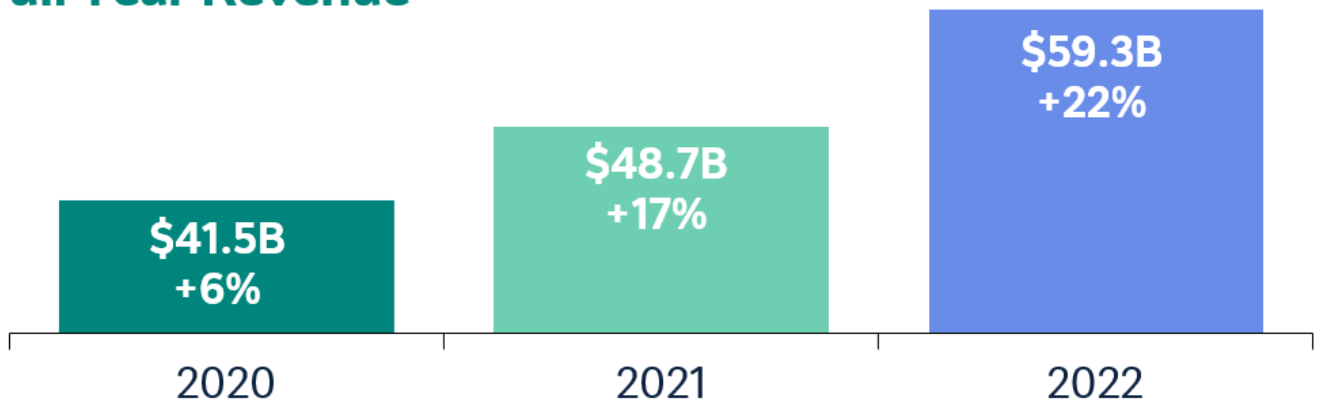
+2%

## 4Q Non-GAAP EPS[2,3]

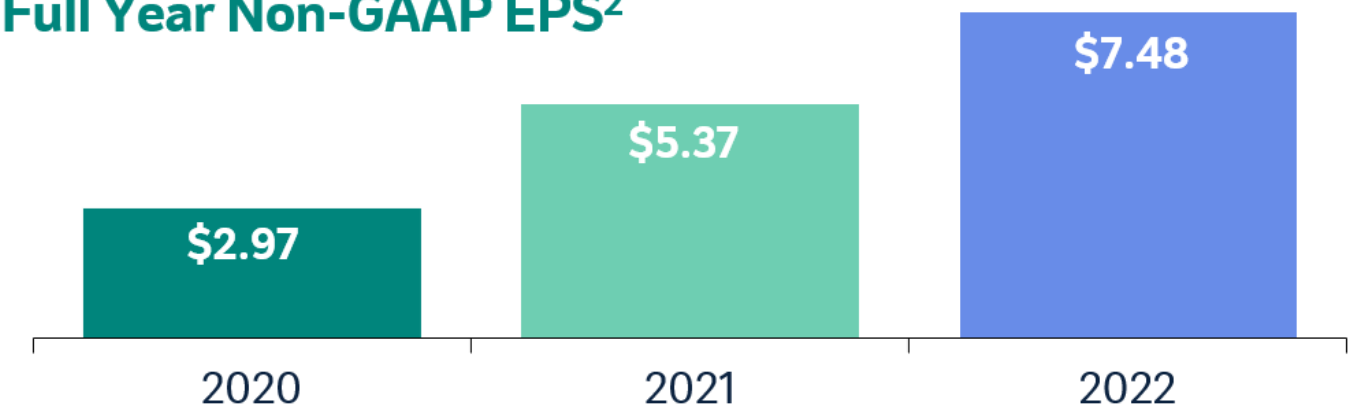
$1.62

-10%

## Full Year Revenue




## Full Year Non-GAAP EPS[2]




1. Results from continuing operations attributable to Merck & Co., Inc. 2. Beginning in 2022, Merck no longer excludes 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. For 2022, non-GAAP results include $690 million of R&D expense, or an estimated $0.22 of negative impact to EPS related to an asset acquisition, and collaboration and licensing agreements.
3. GAAP EPS of $1.18.

# Advancing and augmenting pipeline across multiple therapeutic areas in Q4

## Oncology

- Announced positive top line results for the Phase 2 trial evaluating **KEYTRUDA** in combination with **mRNA-4157/V940**, an investigational personalized mRNA therapeutic cancer vaccine in adjuvant treatment of patients with stage III/IV melanoma following complete resection
- Received FDA approval for **KEYTRUDA** for the adjuvant treatment of adult patients with stage IB (T2a >=4 cm), II or IIIA non-small cell lung cancer following resection and platinum-based chemotherapy based on KN-091

## Cardiovascular

- Merck to present data for **sotatercept** and **MK-0616**, oral macrocyclic peptide PCSK9 inhibitor, at ACC.23/WCC
- Merck to host **investor event** on March 6th to discuss these results

## Vaccines

- Merck collaborator Instituto Butantan (IB) announced positive topline results from IB's Phase 3 **dengue vaccine** candidate. Results to inform next steps for **V181** program[1]

## Business Development

- **Augmented pipeline** with new candidates from recent business development transactions, including:
  - Collaborations with Moderna and Kelun-Biotech
  - Acquisition of Imago
- In 2023, expect four **Phase 3 trial starts** from programs added in 2022 through business development

1. Both Merck and IB's investigational vaccines are derived from materials licensed from the U.S. National Institutes of Health and both institutions are evaluating formulations analogous to the NIH TV003 formulation.

# Building a sustainable engine to drive success into the next decade

## Enhance durable growth drivers

**Vaccines**

**Animal Health**

## Deploy cash flow to value-enhancing BD

**Pursuing the best external science**

**Ample balance sheet capacity**

**Disciplined approach**

## Leverage leadership in oncology

New **combinations** and **coformulations**

New **delivery mechanisms**

Additional **immuno-oncology approaches**

New **mechanisms of action** outside of immuno-oncology

## Advance pipeline across key therapeutic areas

**Cardiometabolic**

**Vaccines**

**Neuroscience**

**Infectious Disease/ Immunology**

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# Business/Financial Results and Outlook

**Caroline Litchfield**
Chief Financial Officer

# Merck achieved exceptional 2022 financial performance[1]

## WORLDWIDE SALES[2]

**$59.3B**

+22% growth
+26% ex-exchange
+15% ex-exchange, LAGEVRIO[4]

Merck

## NON-GAAP EPS3[3,5]

**$7.48**

+39% growth
+43% ex-exchange

1. Results from continuing operations attributable to Merck & Co., Inc. 2. Worldwide Sales includes Other Revenue; 3. 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 pre-tax 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. For a description of the non-GAAP adjustments, see Table 2a attached to the press release. Non-GAAP results for 2021 have been recast to conform to presentation changes implemented in 2022. 4. Excludes impact of foreign exchange and LAGEVRIO sales of $5.7B. 4. GAAP EPS of $5.71.

# Strong Q4 performance across Human Health and Animal Health

Merck

**WORLDWIDE SALES[1,2]**

**$13.8B**

+ 2% growth
+8% ex-exchange

**Human Health**

**$12.2B**

+1% growth
+9% ex-exchange

**Animal Health**

**$1.2B**

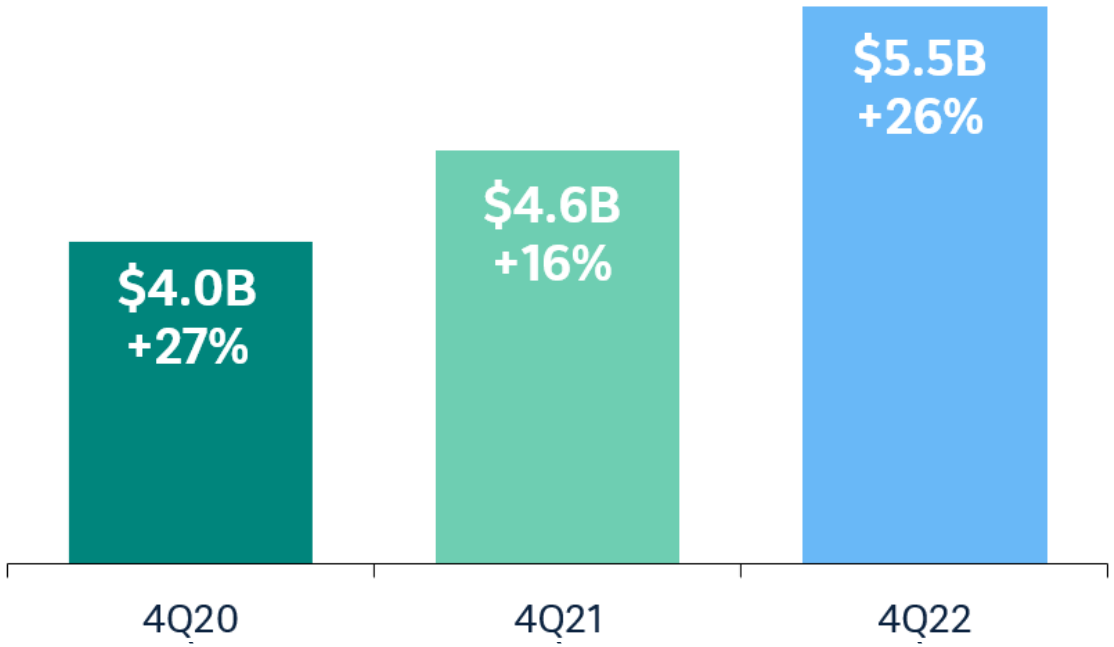
-2% growth
+6% ex-exchange

1. Results from continuing operations attributable to Merck & Co., Inc. 2. Worldwide Sales includes Other Revenue

# Oncology: KEYTRUDA drives continued growth

- KEYTRUDA sales of $5.5B increased 26% year-over-year, driven by strong global demand and expansion into new indications
  - In the U.S., growth of 27% reflects strong growth across all key tumor types, especially in earlier-stage cancers such as high-risk, early-stage TNBC
  - Expect to launch earlier stage NSCLC indication based on recent FDA approval of KEYNOTE-091 study
  - Ex-U.S., 24% increase driven by continued global uptake in metastatic indications, such as NSCLC, H&N and RCC
    - Strong uptake from recent launches in high-risk, early-stage TNBC and RCC

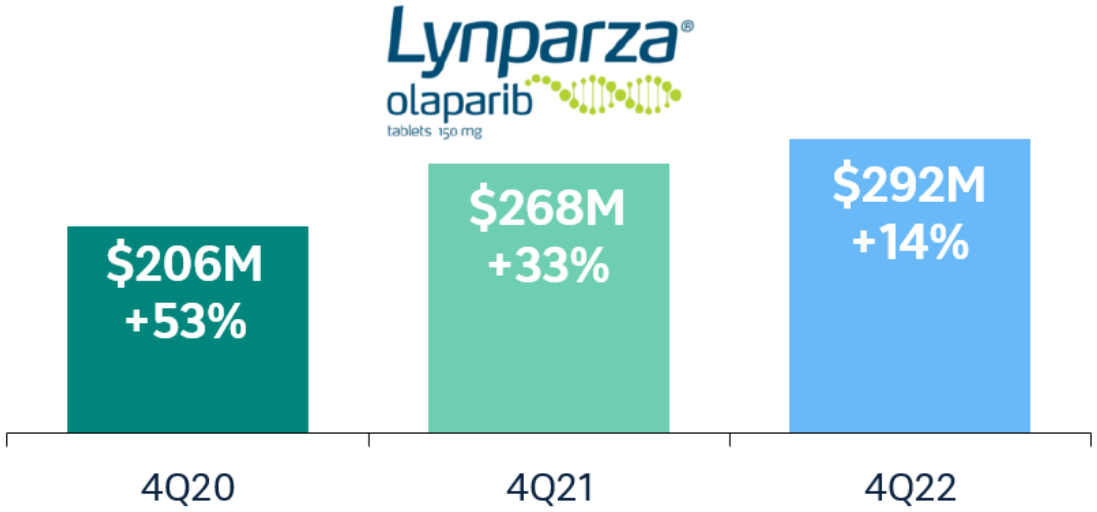
KEYTRUDA® (pembrolizumab) Injection 100 mg

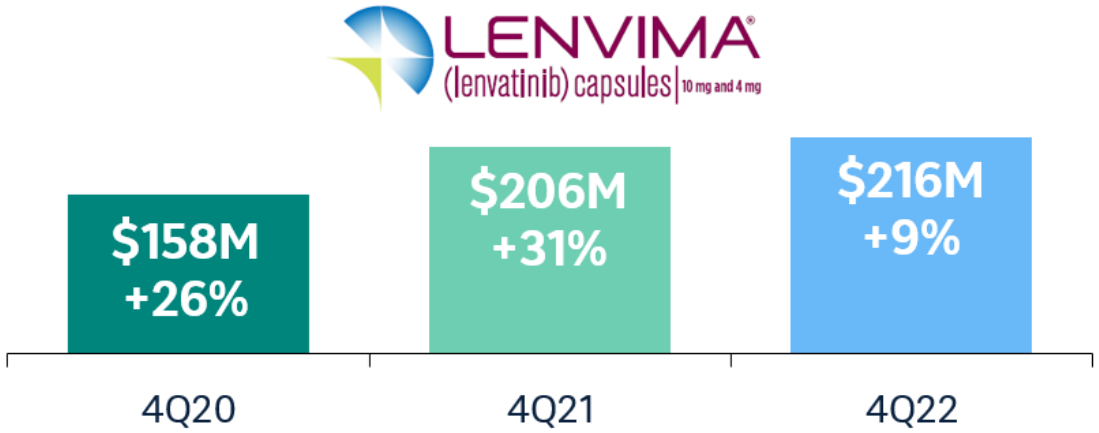



Growth rates exclude the impact of foreign exchange.

# Oncology: Robust performance across broad portfolio

- Lynparza[1] sales increased 14%, with growth driven by continued demand in adjuvant treatment of certain patients with gBRCAm, HER2-negative high-risk early-stage breast cancer
- Lenvima[2] sales grew 9% driven by increased uptake in advanced RCC and advanced endometrial cancer in the U.S.
- WELIREG continues to perform in line with expectations providing a treatment option for patients with certain VHL-associated tumors



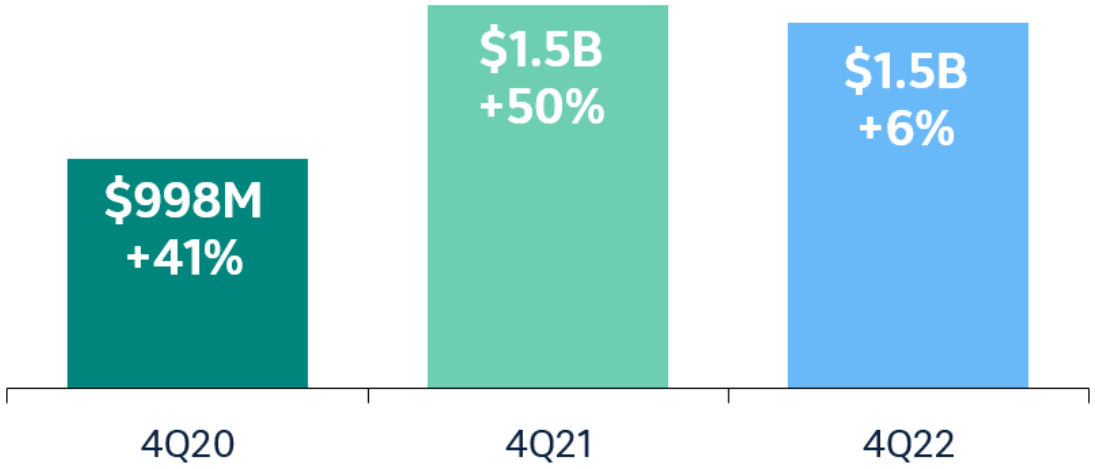

Growth rates exclude the impact of foreign exchange.
[1] In collaboration with AstraZeneca; [2] In collaboration with Eisai

# Vaccines: Gardasil growth driven by strong global demand

- GARDASIL sales of $1.5B increased 6% year-over-year primarily driven by strong underlying demand outside the U.S.
  - Ex-U.S., reflects demand driven growth, particularly in China
  - U.S. sales declined primarily due to CDC purchasing patterns
- Pediatric launch of VAXNEUVANCE off to an encouraging start; sales benefitted from inventory stocking

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

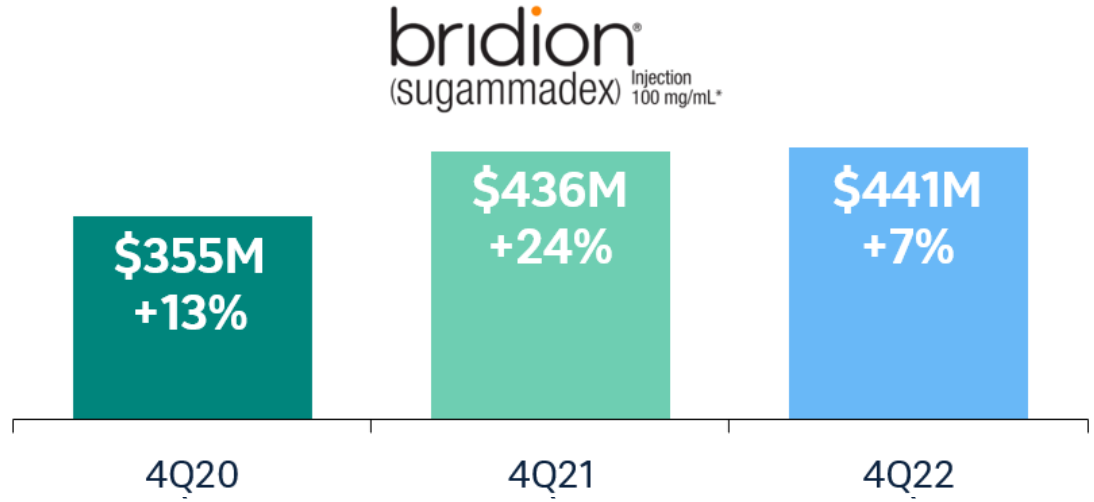
GARDASIL 9®
[Human Papillomavirus 9-valent Vaccine, Recombinant]

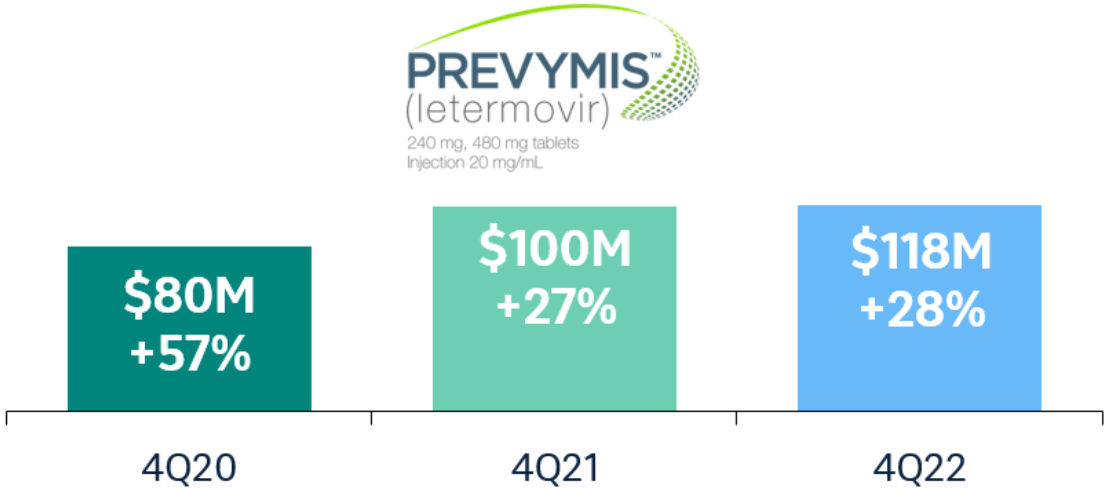



Growth rates exclude the impact of foreign exchange.

# Hospital: Strong global demand across key products

- BRIDION sales of $441M increased 7% primarily due to greater share among neuromuscular blockade reversal agents and increase in surgical procedures
- PREVYMIS sales grew 28%, driven by continued strong global demand
- ZERBAXA benefited from completion of global resupply which started in Q4 2021



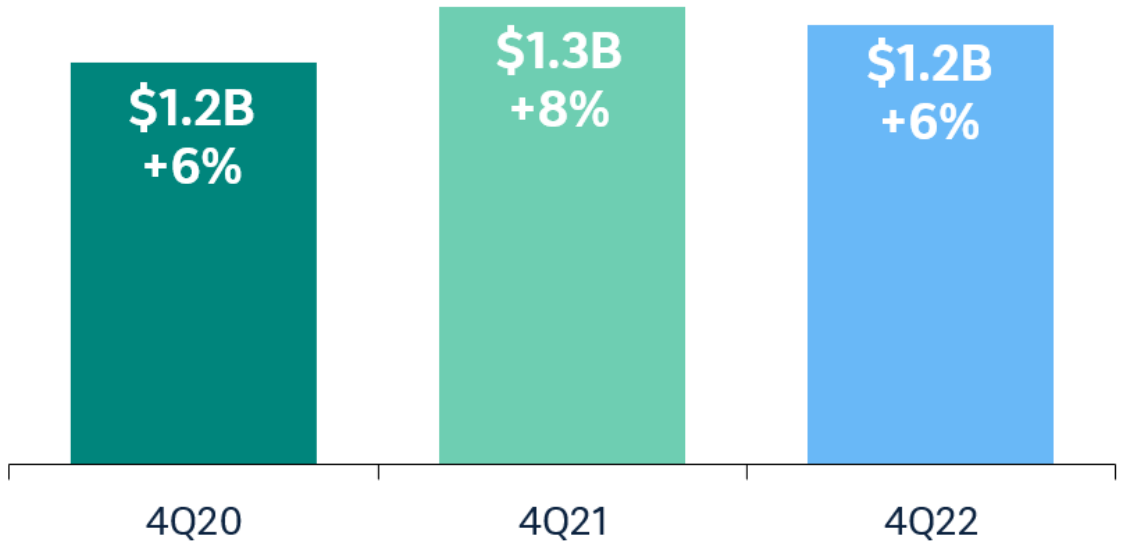




Growth rates exclude the impact of foreign exchange.

# Animal Health: Solid growth driven by livestock

- Animal Health sales increased 6% to $1.2B, reflecting strategic price actions and volume growth
  - Livestock sales grew 12% due to increased demand in ruminants and poultry products
  - Companion Animal sales decreased 5% due to supply challenges for certain vaccines and a reduction in vet visits in October, which improved during the quarter

MERCK Animal Health




Growth rates exclude the impact of foreign exchange.

# Q4 2022 continuing operations non-GAAP financial results summary[1]

$ in billions, except EPS amounts

| | Q4 2022 | Q4 2021 | Change | Change Ex-FX |
|---|---|---|---|---|
| **Sales** | $13.8 | $13.5 | +2% | +8% |
| **Non-GAAP Gross Margin** | 75.7% | 74.8% | +0.9pts | +0.3pts |
| **Non-GAAP Operating Expenses[2]** | $5.7 | $5.3 | +8% | +12% |
| **Non-GAAP Tax Rate** | 15.6% | 4.3% | +11.3pts | N/A |
| **Non-GAAP EPS[3]** | $1.62 | $1.81 | -10% | -7% |

1. 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 pre-tax 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. For a description of the non-GAAP adjustments, see Table 2a attached to the press release. Non-GAAP results for 2021 have been recast to conform to presentation changes implemented in 2022. 2. Non-GAAP results include $690 million of R&D expense, or an estimated $0.22 of negative impact to EPS, related to an asset acquisition, and collaboration and licensing agreements 3. Q4 2022 GAAP EPS of $1.18.

# Merck provides full-year 2023 guidance

| | Guidance | Key Assumptions |
|---|---|---|
| **Revenue** | $57.2B to $58.7B<br>-4% to -1% (-2% to +1% ex-FX) | • Includes approximately $1B of LAGEVRIO revenue<br>• Ex-LAGEVRIO, growth of 5% to 8% (7 to 10% ex-FX)<br>• Assumes ~2% FX headwind |
| **Non-GAAP Gross Margin Rate[1]** | ~77.0% | |
| **Non-GAAP Operating Expenses[2]** | $23.1B to $24.1B | • Includes $1.4B of upfront R&D expense related to acquisition of Imago Biosciences and expansion of collaboration with Kelun Biotech |
| **Other (Income) / Expense** | ~$250M of income | • Assumes no pension settlement cost as well as an expectation of higher interest income and higher joint venture equity income |
| **Tax Rate[3]** | ~17.0%-18.0% | • Assumes unfavorable impact due to the R&D capitalization provision, as well as ~1% unfavorable impact related to Imago |
| **Shares Outstanding** | ~2.55B | |
| **GAAP EPS** | $5.86 to $6.01 | |
| **Non-GAAP EPS[4,5]** | $6.80 to $6.95 | • Reflects upfront R&D expense $0.53 for Imago Biosciences and Kelun Biotech<br>• Assumes ~4% FX headwind |

1. GAAP Gross Margin Rate: ~73%. 2. GAAP Operating Expenses: $23.3 to $24.3 billion. 3. GAAP Tax Rate: ~17-18% 4. The GAAP to non-GAAP reconciliation is available in Merck's Q4 2022 earnings release 5. Merck does not 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.

# Key modeling considerations for 2023

## GARDASIL

- Expect strong growth driven by robust global demand, particularly in ex-U.S. markets
- Increased ability to supply positions us well to support significant demand now and in the future

## Other Revenue

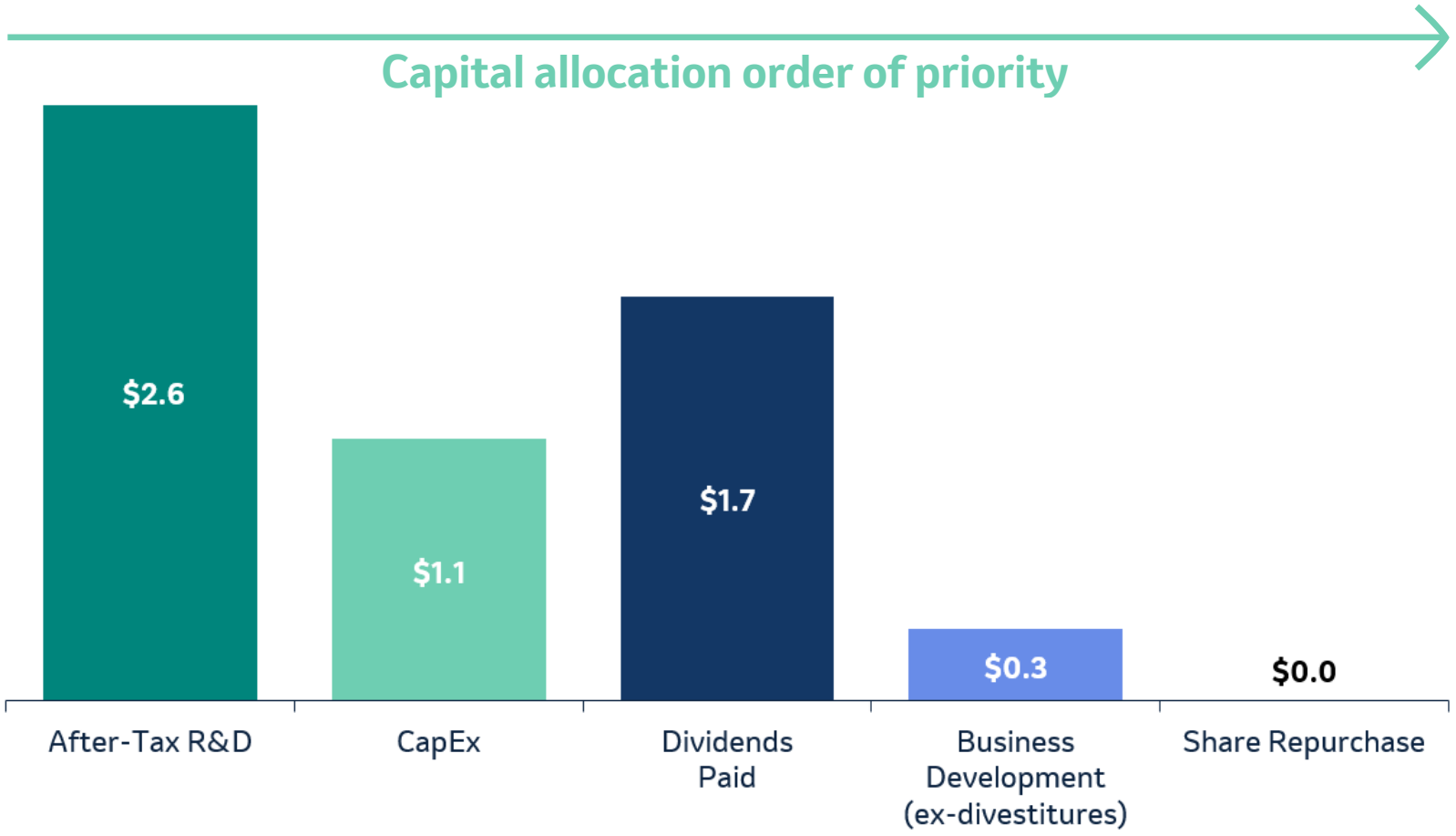
- Expect significant decline, resulting from smaller planned benefit from revenue hedges following U.S. dollar strength in 2022
  - Resulted in an ~$800M benefit in 2022
- Reflects discontinuation of third-party manufacturing sales to Johnson and Johnson

## Other (Income) / Expense and Tax Rate

- Other Income assumes no pension settlement cost; expect higher interest income and joint venture equity income
- Tax Rate assumes unfavorable impact of R&D capitalization provision and approximate 1 ppt unfavorable impact related to the Imago transaction

# Remain committed to balanced capital allocation strategy

$ Billions[1]




Continue to prioritize investments in our **pipeline** and **business** to realize value of near- and long-term opportunities

1. Reflects Q4 spend

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# Research Update

**Dr. Dean Li**
President, Merck Research Laboratories

# Working to help transform the landscape of cancer treatment by focusing on earlier stages of disease

## Making progress in the treatment of earlier stage non-small cell lung cancer through various clinical trials

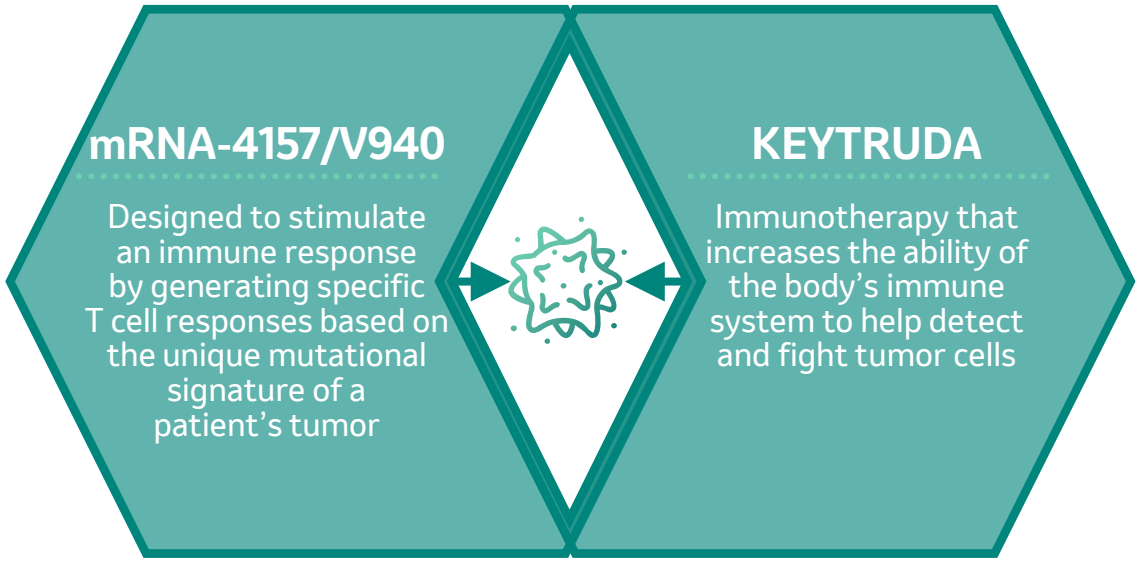
**APPROVED**

- **KEYNOTE-091:** Received FDA approval for KEYTRUDA for adjuvant treatment of adult patients with stage IB (T2a >=4 cm), II or IIIA NSCLC following resection and platinum-based chemotherapy

**PHASE III**

- **KEYNOTE-671:** Evaluating KEYTRUDA with platinum doublet chemotherapy as neoadjuvant followed by adjuvant therapy for patients with resectable stage II, IIIA and IIIB NSCLC
- **KEYNOTE-867:** Evaluating KEYTRUDA in patients undergoing stereotactic body radiotherapy with unresected stage I or II NSCLC
- **KEYLYNK-012:** Evaluating KEYTRUDA in combination with Lynparza[1] in stage III disease

## Advancing our collaboration with Moderna to leverage mRNA technology with KEYTRUDA to target the unique mutational signature of each patient's tumor in melanoma and other tumor types




[1] In collaboration with AstraZeneca

# Advancing our broader oncology portfolio

## Positive Data Readouts

- **KEYNOTE-966:** Announced positive Phase III results evaluating KEYTRUDA in combination with chemotherapy in 1L treatment of advanced or unresectable biliary tract cancer
- **KEYNOTE-859:** Announced positive Phase III results evaluating KEYTRUDA in combination with chemotherapy in HER2-negative locally advanced unresectable or metastatic gastric or gastroesophageal junction adenocarcinoma

## Hematology

- Announced acquisition of **Imago Biosciences**:
  - Lead candidate bomedemstat a potentially first-in-class orally available lysine-specific demethylase 1 inhibitor (LSD-1)
- Presented data at **American Society of Hematology Meeting** for:
  - favezelimab (anti-LAG3)
  - zilovertamab vedotin (ROR-1)
  - nemtabrutinib (BTKi)
  - KEYTRUDA

## Ex-U.S. Approvals

- **In Europe:**
  - Received approval for Lynparza[1] in combination with abiraterone and prednisone or prednisolone for the treatment of certain patients with mCRPC based on PROpel
- **In China:**
  - Received approval for KEYTRUDA in neoadjuvant / adjuvant high-risk, early-stage TNBC based on KN-522
  - Received approval for KEYTRUDA in hepatocellular carcinoma based on KN-394

## Tissue Targeting Therapies

- **Padcev[2]:** FDA accepted sBLA for Keytruda to be used in combination with Padcev, an ADC targeting Nectin-4, for 1L treatment of certain patients with locally advanced or metastatic urothelial cancer who are ineligible for cisplatin-containing chemotherapy
- **Kelun-Biotech:** Expanded collaboration with up to 7 additional preclinical antibody drug conjugate candidates
- **PeptiDream:** Expanded ongoing collaboration for the discovery and development of peptide drug conjugates

1. In collaboration with Astra Zeneca 2. In collaboration with Astellas and Seagen. Padcev is a registered trademark of Seagen and Agensys.

# Focusing on important unmet medical needs through vaccine development programs

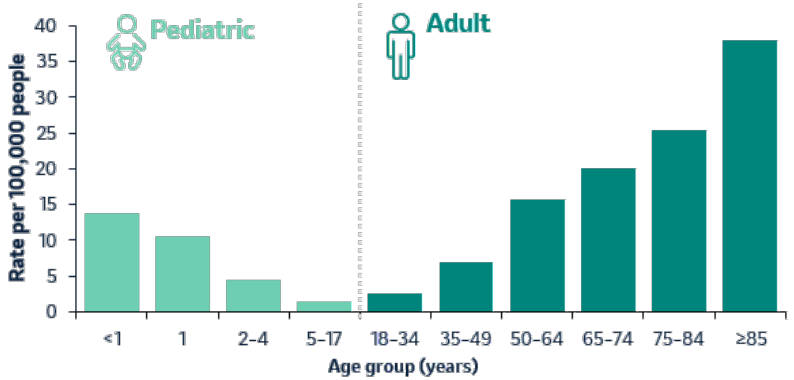
## Dengue

- Collaborating with Instituto Butantan (IB) to conduct a detailed analysis of IB's positive Phase 3 data in order to determine further clinical development of Merck's vaccine candidate, **V181**

V181 is being investigated to help provide, in a single dose, protection against all four dengue serotypes regardless of prior exposure to dengue

## Invasive Pneumococcal Disease

- Receiving positive feedback from physicians following launch of **VAXNEUVANCE** in the pediatric setting
- VAXNEUVANCE offers strong immunogenicity, including in the first year of life where incidence of IPD is greatest within the healthy pediatric population




**Pneumococcal Disease Chart**
Centers for Disease Control and Prevention, IPD serotype data 2019, as compiled from data provided through Active Bacterial Core surveillance (ABCs).
Active Bacterial Core Surveillance (ABCs) report emerging infections program network streptococcus pneumoniae, 2019. Available: SPN Surveillance Report 2019.pdf (cdc.gov).
Source: Epidemiology of pneumococcal disease and pneumococcal vaccine coverage in US children, Ryan Gierke, MPH.
Advisory Committee on Immunization Practices, February 24th, 2022.

# Recent data published on cancer incidence

## Cervical Cancer

- We, along with others in the industry, are making a real impact in our goal to help reduce cancer incidence
- American Cancer Society published its annual report on cancer facts and trends
- Reinforces our commitment to bringing forward treatment and prevention options to help patients

> Among women ages 20 to 24, cervical cancer incidence rates declined by a total of … 65% from 2012 through 2019.[1]
>
> **- American Cancer Society**

1. Cancer statistics, 2023, Rebecca L. Siegel, CA Cancer J Clin. 2023; 73:17–48

# Significant advancements across our broader pipeline and portfolio

## COVID-19

- Granted **conditional marketing authorization** for **LAGEVRIO** by China's National Medical Products Administration
- Under Emergency Use Authorization, **LAGEVRIO** remains an **important treatment option** as the COVID-19 pandemic continues to evolve

## Cardiovascular

At ACC.23/WCC on March 6th, Merck to:

- Present results from Phase 3 STELLAR study evaluating **sotatercept** for treatment of pulmonary arterial hypertension
- Present data from Phase 2 study evaluating **MK-0616, oral macrocyclic peptide PCSK9 inhibitor,** for treatment of hypercholesterolemia
- Host live investor event

# Strong progress across our pipeline throughout 2022

## Oncology

- **KEYTRUDA:**
  - Received approval for advanced endometrial cancer that is MSI-H or dMMR (KN-158)
  - Received approval for KN-091 for adjuvant treatment of adult patients with stage IB (T2a >= 4cm), II or IIIA NSCLC following resection and platinum-based chemotherapy
  - Announced positive topline results for HER2- locally advanced unresectable or metastatic gastric or GEJ adenocarcinoma (KN-859)
- **Lynparza:** Received approval for adjuvant treatment of adults with gBRCAm, HER2- high-risk early breast cancer (OlympiA)
- **MRNA-4157/V940:** Announced positive topline results for Phase 2b trial in adjuvant treatment in patients with stage III/IV melanoma following complete resection

## Cardiometabolic

- **Sotatercept:** Announced positive topline results for Phase 3 STELLAR trial in PAH
- **MK-0616:** Completed Phase 2 trial in patients with hypercholesterolemia
- **MK-2060:** Received Fast Track designation for the reduction in risk of major thrombotic cardiovascular events in patients with ESRD
- **MK-5475:** Initiated Phase 2 study in patients with PH-COPD

## Vaccines

- **VAXNEUVANCE:** Received approval in the pediatric setting
- **V116:** Received Breakthrough Therapy Designation and advanced into Phase 3 trials for the prevention of invasive pneumococcal disease and pneumococcal pneumonia in adults
- **V181:** Merck collaborator Instituto Butantan (IB) announced positive topline results from IB's Phase 3 dengue vaccine candidate. Results to inform next steps for V181 program[1]

## Infectious Disease

- **Islatravir:** Reinitiated development program in the HIV treatment setting
- **MK-8527:** Initiated Phase 1b study of internal novel NRTTI[2] for HIV PrEP
- **LAGEVRIO:** Initiated Phase 2 trial for the treatment of RSV

1. Both Merck and IB's investigational vaccines are derived from materials licensed from the U.S. National Institutes of Health and both institutions are evaluating formulations analogous to the NIH TV003 formulation. 2. nucleoside reverse transcriptase translocation inhibitor

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# Q&A

**Rob Davis**
Chairman & Chief Executive Officer

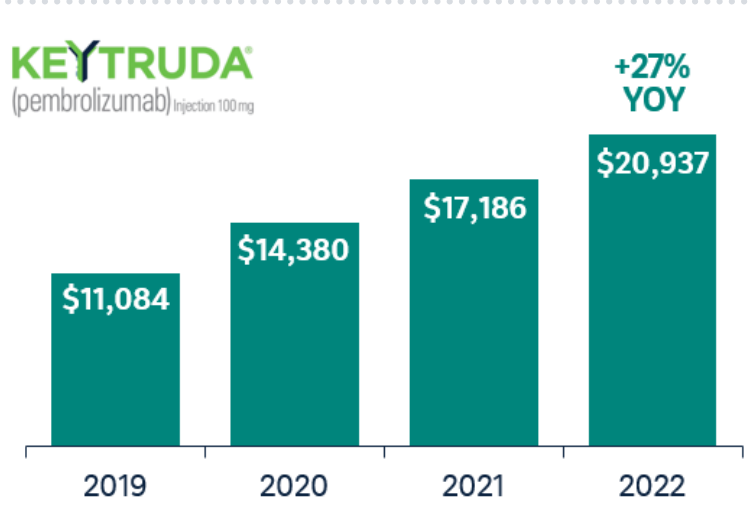
**Caroline Litchfield**
Chief Financial Officer

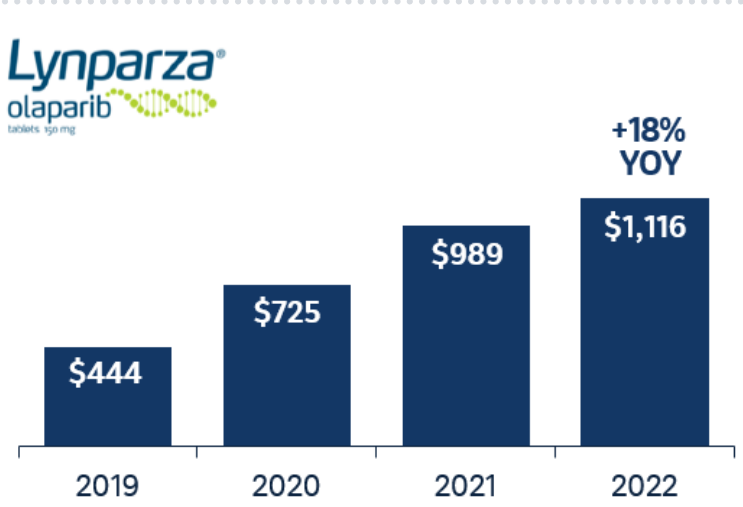
**Dr. Dean Li**
President, Merck Research Laboratories

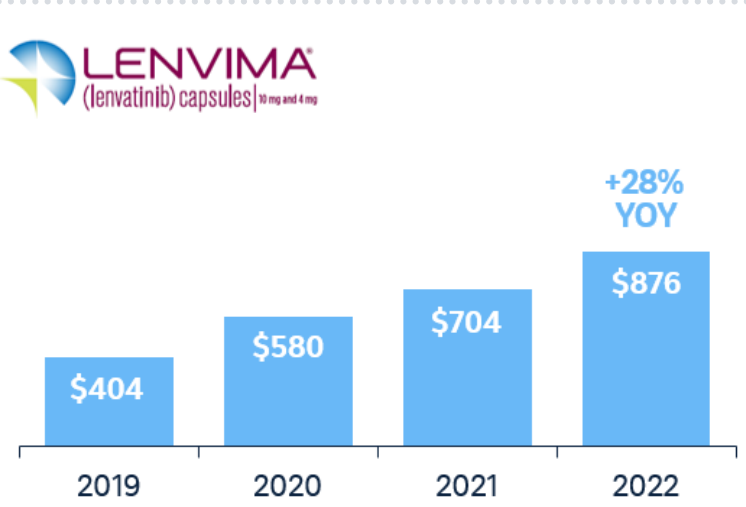
**Peter Dannenbaum**
Vice President, Investor Relations

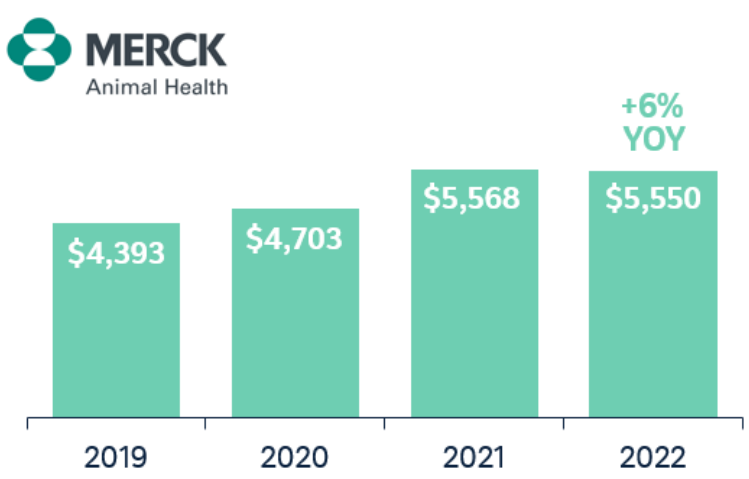
# Appendix

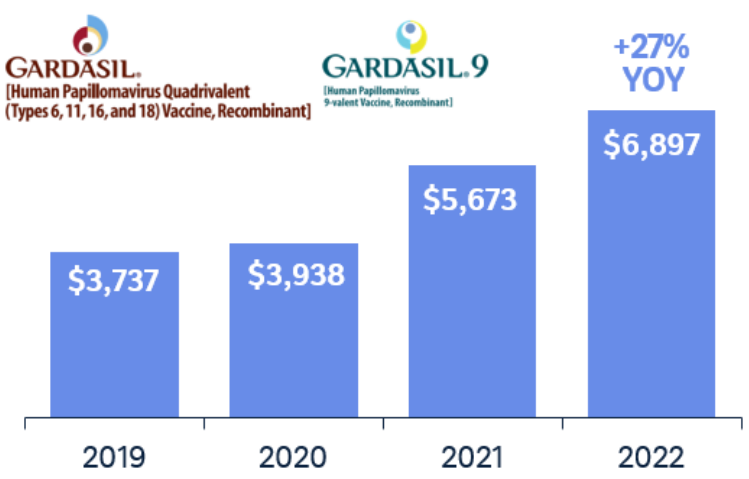
# Sustained strong full-year performance across key growth pillars

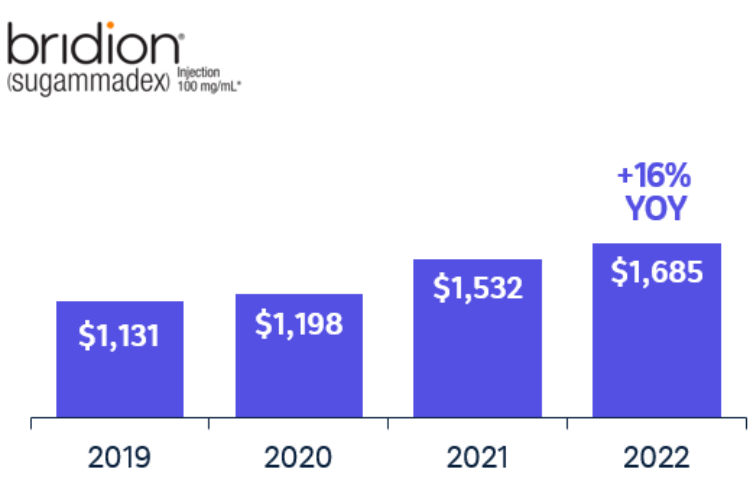



All growth rates exclude the impact of foreign exchange.
$ In millions.
Lynparza in collaboration with AstraZeneca. Lenvima in collaboration with Eisai.

# Q4 2022 continuing operations GAAP financial results summary

$ in billions, except EPS amounts

| | Q4 2022 | Q4 2021 | Change | Change Ex-FX |
|---|---|---|---|---|
| **Sales** | $13.8 | $13.5 | +2% | +8% |
| **Operating Expenses** | $6.5 | $5.9 | +10% | +13% |
| **Tax Rate** | 14.1% | 2.2% | +11.9pts | N/A |
| **GAAP EPS** | $1.18 | $1.51 | -22% | -17% |

# 2022 continuing operations GAAP financial results summary:

$ in billions, except EPS amounts

| | 2022 | 2021 | Change | Change Ex-FX |
|---|---|---|---|---|
| **Sales** | $59.3 | $48.7 | +22% | +26% |
| **Operating Expenses** | $23.6 | $21.9 | +8% | +11% |
| **Tax Rate** | 11.7% | 11.0% | +0.7pts | N/A |
| **GAAP EPS** | $5.71 | $4.86 | +17% | +21% |

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

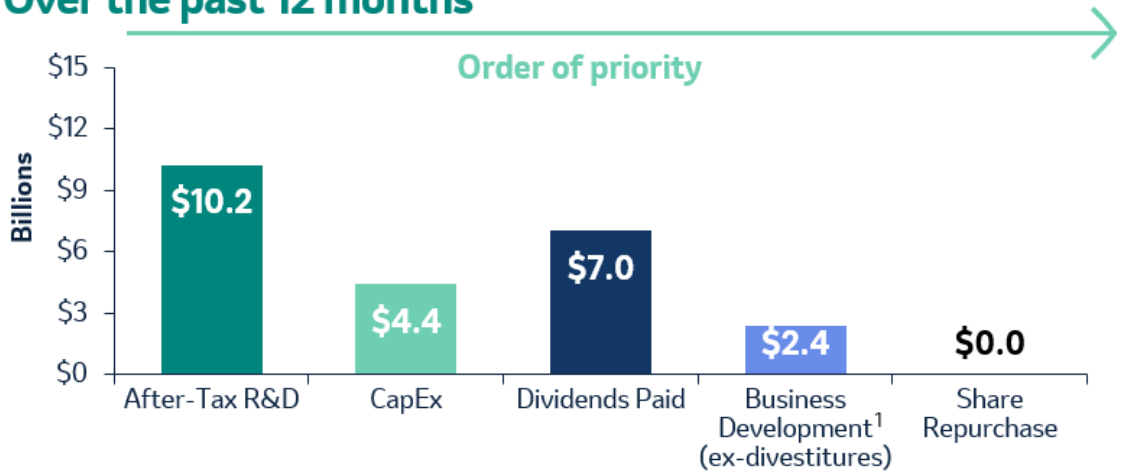
$ in billions, except EPS amounts

| | 2022 | 2021 | Change | Change Ex-FX |
|---|---|---|---|---|
| **Sales** | $59.3 | $48.7 | +22% | +26% |
| **Non-GAAP Gross Margin[1]** | 74.4% | 76.1% | -1.7pts | -2.1pts |
| **Operating Expenses** | $21.6 | $21.0 | +3% | +6% |
| **Tax Rate** | 14.2% | 12.4% | +1.8pts | N/A |
| **Non-GAAP EPS that excludes certain items[1]** | $7.48 | $5.37 | +39% | +43% |

1. 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 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.

# Capital allocation: Trailing twelve months

## Over the past 12 months




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

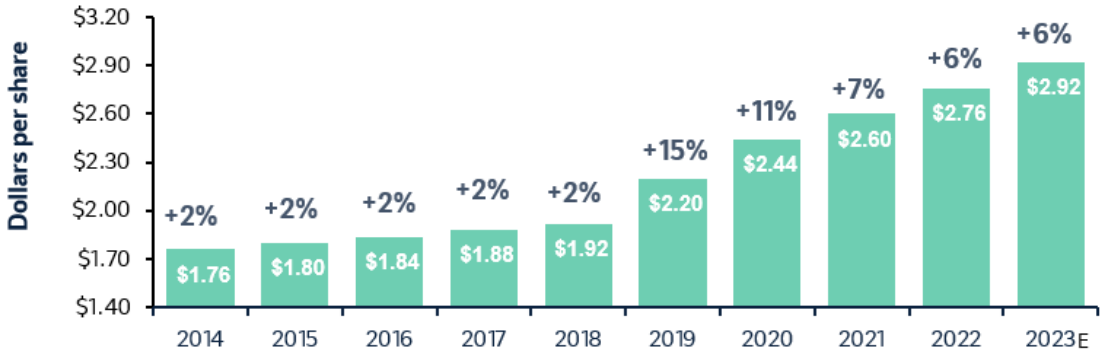
## Capital investments

2022 to 2026

**~$18B**

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

## Commitment to the dividend




1. Includes payments reflected in operating cash flow

# Driving value for patients and shareholders by progressing our pipeline

## Key regulatory milestones since the last earnings call:

- In the U.S.:
  - The FDA granted approval of KEYTRUDA following surgical resection and platinum-based chemotherapy in patients with stage IB, II or IIIA non-small cell lung cancer based on KN-091, as well as accepted submission of Supplemental Biologics License Applications for PADCEV[1] + KEYTRUDA to be used in combination as 1L treatment of certain patients with locally advanced or metastatic urothelial cancer who are ineligible for cisplatin-containing chemotherapy based on KN-869
- In Europe:
  - Received approval for Lynparza[2] in combination with abiraterone and prednisone or prednisolone in certain patients with metastatic castration-resistant prostate cancer based on PROpel
- In China:
  - Received approval for KEYTRUDA in patients with high-risk early-stage TNBC in combination with chemotherapy as neoadjuvant treatment based on KN-522, as well as conditional marketing authorization for LAGEVRIO in adult patients with mild to medium COVID-19 infection and a high risk of progressing to severe cases
- In Japan:
  - Completed submission of KN-170/KN-A33 in patients with relapsed or refractory primary mediastinal large B-cell lymphoma

## Key data & clinical advancements since the last earnings call:

- Announced with partner Moderna, positive topline results from Phase 2b KN-942 trial evaluating mRNA-4157/V940, an investigational personalized mRNA cancer vaccine in combination With KEYTRUDA
- Announced positive topline results from Phase 3 KN-859 trial evaluating KEYTRUDA in combination with chemotherapy for 1L treatment in patients with HER2-negative locally advanced unresectable or metastatic gastric or gastroesophageal junction (GEJ) adenocarcinoma
- Presented data across broad hematology pipeline and portfolio at ASH, including for favezelimab (MK-4280), zilovertamab vedotin (MK-2140), nemtabrutinib (MK-1026) and KEYTRUDA
- Announced publication of updated systematic literature review examining the global impact and effectiveness of GARDASIL across 138 studies
- Initiated Phase 3 studies for MK-1026 in hematologic malignancies

1. In collaboration with Astellas and Seagen. Padcev is a registered trademark of Seagen and Agensys. 2. In collaboration with AstraZeneca.

# Broad and innovative pipeline to solve significant unmet medical needs

## Phase 2

### Oncology

MK-0482
NSCLC

MK-1026 (nemtabrutinib)
Hematological Malignancies

MK-1308 (quavonlimab)
NSCLC

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

MK-2140 (zilovertamab vedotin)
Bladder
Breast
Gastric
Hematological Malignancies
NSCLC
Ovarian
Pancreas

MK-2870
Neoplasm Malignant

KEYTRUDA (MK-3475)
Advanced Solid Tumors

MK-3543 (bomedemstat)
Myeloproliferative Disorders

MK-4280 (favezelimab)
NSCLC

MK-4280A (favezelimab+pembrolizumab)
Esophageal
Melanoma
RCC
SCLC

MK-4830
CRC
Esophageal
Melanoma
NSCLC
Ovarian
RCC
SCLC

MK-5684
Prostate

MK-5890 (boserolimab)
NSCLC
SCLC

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

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

LYNPARZA (MK-7339)
Advanced Solid Tumors

LENVIMA (MK-7902)
Biliary
Pancreas
Prostate
SCLC

mRNA-4157/V940
Melanoma

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

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

### Vaccines

V181
Dengue Fever Virus

### Infectious diseases

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

MK-8591D (islatravir+lenacapavir)[2]
HIV-1 Infection

### Cardiovascular

MK-0616
Hypercholesterolemia

MK-2060
Thrombosis

MK-5475
Pulmonary Arterial Hypertension

MK-7962 (sotatercept)
Pulmonary Hypertension due to Left Heart Disease

### General medicine

MK-1942
Treatment Resistant Depression

MK-3655
NASH

MK-6024 (efinopegdutide)
NASH

MK-7075 (miransertib)
Overgrowth Syndrome

### Neuroscience

MK-8189[4]
Schizophrenia

[1]On FDA clinical hold [2]On FDA partial clinical hold for higher doses than those used in current clinical trials
[3]Available in the US under EUA [4]Development is co-funded by Royalty Pharma

## 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)
Melanoma
NSCLC
SCLC

MK-4280A (favezelimab +pembrolizumab)
CRC
Hematological Malignancies

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

LYNPARZA (MK-7339)
NSCLC
SCLC

WELIREG (MK-6482)
RCC

TUKYSA (MK-7119)
Breast
CRC

MK-3475 (pembrolizumab subcutaneous)
NSCLC

### Infectious diseases

MK-8591A (doravirine+islatravir)[2]
HIV-1 Infection

LAGEVRIO (MK-4482)[3]
COVID-19 antiviral

### Vaccines

MK-1654 (clesrovimab)
Respiratory Syncytial Virus (RSV)

V116
Pneumococcal vaccine, adult

### Cardiovascular

MK-7962 (sotatercept)
Pulmonary Arterial Hypertension

## Under regulatory review

### Oncology

KEYTRUDA (MK-3475)
1L Urothelial (US)
2L HCC (US)
LA Merkel Cell (US)
Adjuvant NSCLC (EU)
B-Cell Lymphoma (JPN)

LYNPARZA (MK-7339)
Metastatic 1L Prostate (US, JPN)

### Vaccines

V114
Pneumococcal Vaccine, pediatric (JPN)

### General medicine

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

### Infectious diseases

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



As of February 1, 2023