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Strategy and Business Update

Rob Davis
Chairman and Chief Executive Officer

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, 2022 and the company's other filings with the Securities and Exchange Commission (SEC) available at the SEC's Internet site (www.sec.gov).

Delivered on our key strategic priorities

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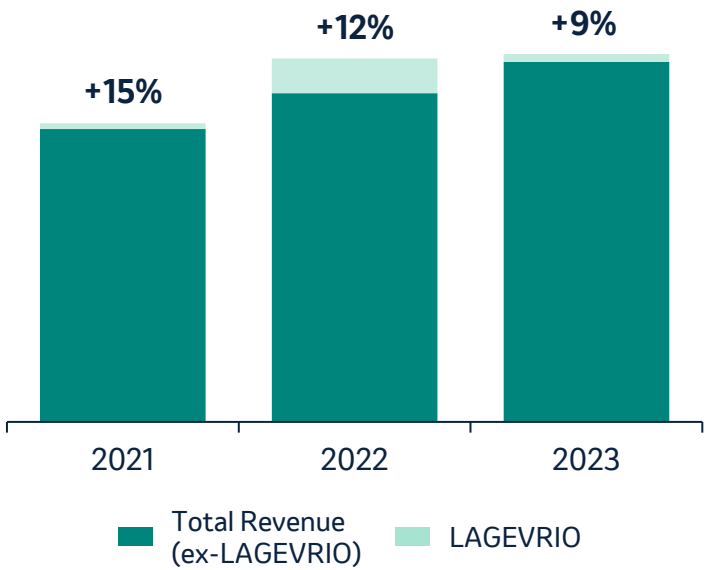
- **Advanced the pipeline to meet patient unmet need**
- **Executed on strategic business development to augment pipeline**
- **Achieved strong commercial and financial performance**
- **Created long-term value for patients and shareholders**

Substantial progress in 2023 builds on strong track record of execution

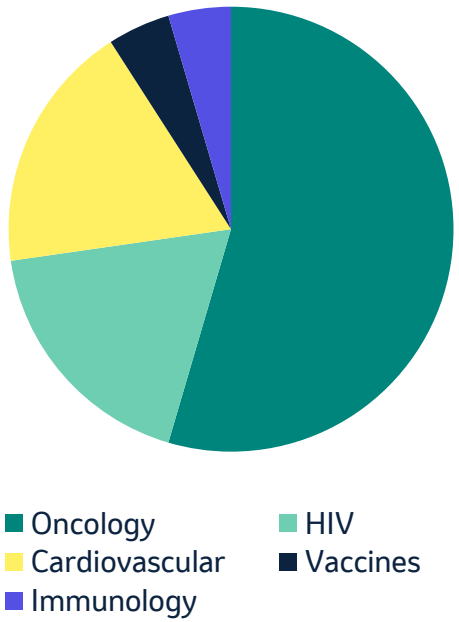
Sustained underlying revenue growth

+12% annualized growth from 2020 to 2023:



Significant pipeline advancements

>20 Phase 3 study starts with 8 being novel assets:



Strategic business development

~$50B[1] invested since 2019 including:

Completed in 2023

Prometheus Biosciences

Daiichi-Sankyo

IMAGO BioSciences

KELUN-BIOTECH 科伦博泰

ORION

RIDGEBACKBIO

moderna

Hanmi

GILEAD

ACCELERON PHARMA

VELOSBIO

Peloton Therapeutics

ARQULE

PANDION THERAPEUTICS

ORNA

Growth rates represent annualized nominal growth on an ex-LAGEVRIO basis.
2023 not actuals; 2023 values reflect the midpoint of guidance issued on October 26, 2023.
1. BD figure includes bolt-on acquisitions, strategic collaborations & licensing, and milestone payments.

Exciting 2024 launches with potential for significant patient benefit

Sotatercept

- Potential to **transform the treatment of PAH**
- FDA granted **priority review** with a PDUFA of March 26th
- **Multibillion dollar peak revenue** opportunity

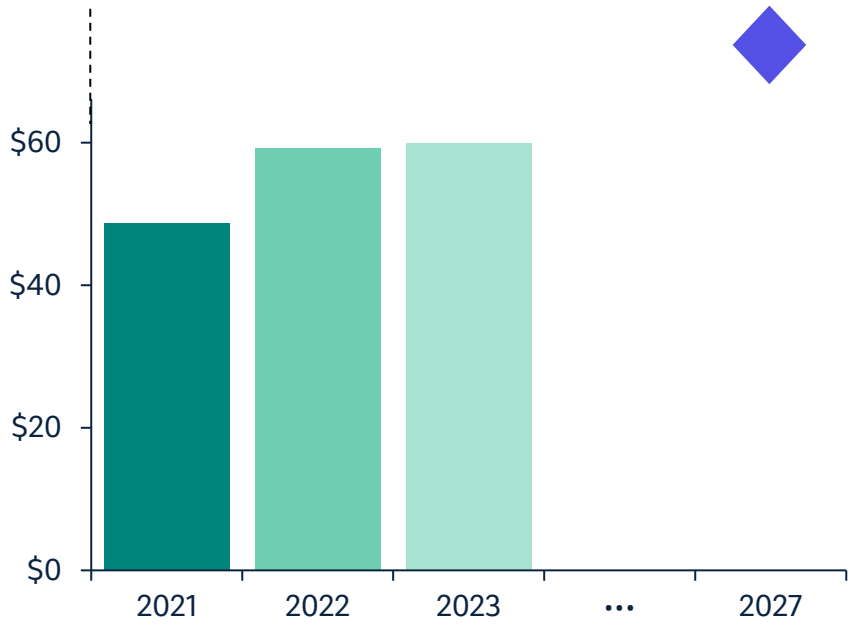
V116

- Potential to be first approved PCV specifically **designed for adults**, protecting against **~83%** of adult invasive pneumococcal disease[1]
- FDA granted **priority review** with a PDUFA of June 17th
- **Multibillion dollar peak revenue** opportunity

1. Individuals 65 and older, according to CDC data from 2018-2021

Remain confident in medium-term outlook for growth

Revenue
$ in billions



Expect strong de-risked revenue growth

Driven by key growth pillars and new launches across **Oncology**, **Vaccines, Cardiometabolic** and **Animal Health**

Remain committed to disciplined investment in the business

Deliver **operating margin expansion,** including to >43% by 2025, while fully **investing behind key growth drivers** and **expansive pipeline**

Capacity to pursue additional business development

Strong **balance sheet** and **cash flow** enables additional **science-driven, value-creating** business development

Results from continuing operations attributable to Merck & Co., Inc
2023+ not actuals; 2023 values reflect the midpoint of guidance issued on October 26, 2023. Growth beyond 2023 is not shown to scale.

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Research Update

Dr. Dean Li
President, Merck Research Laboratories

Significant pipeline advancements across therapeutic areas in 2023

Oncology

- **Significant approvals include:**
  - **KEYTRUDA** as **adjuvant treatment** for certain stages of **NSCLC** (KN-091)
  - **KEYTRUDA** as **perioperative treatment** for certain resectable stages of **NSCLC** (KN-671)
  - **KEYTRUDA + EV** for **LA mUC** (KN-A39 / EV-302[1,2])
  - **WELIREG** in **aRCC** following progression after both PD-1/PD-L1 inhibitor and VEGF-TKI (LS-005)
- **Key data readouts include:**
  - **KEYTRUDA** in **high-risk LA cervical cancer** granted priority review based on KN-A18 (PDUFA Jan 20th)
  - **Patritumab deruxtecan**[3] in **LA and metastatic EGFR-mutated NSCLC** granted priority review (PDUFA June 26th)
- **Notable Phase 3 trial initiations include:**
  - **V940**[4] in adjuvant **melanoma** & **NSCLC**
  - **MK-2870**[5] in **EGFRm NSCLC**
  - **Bomedemstat** in **essential thrombocythemia**
  - **MK-5684**[6] in **mCRPC**

Vaccines & Infectious Disease

- **Pneumococcal**
  - Granted priority review for **V116**, for prevention of invasive pneumococcal disease and pneumococcal pneumonia in adults (PDUFA June 17th)
    - Presented positive **V116** Phase 3 data in **vaccine-naïve** adults from STRIDE-3 trial
    - Announced positive topline **V116** Phase 3 data in adults **≥50 years of age** who **previously received** pneumococcal vaccine from STRIDE-6 trial
- **HIV**
  - Initiated Phase 2a trial for **MK-8527** for **once-monthly PrEP**
- **CMV**
  - Received approval for **PREVYMIS** for prophylaxis for certain adult recipients of **kidney transplant** who are at high-risk of infection

General Medicine

- **Cardiometabolic**
  - Granted priority review for **sotatercept** for the treatment of **PAH** (PDUFA March 26th)
  - Initiated multiple Phase 3 CORALreef studies for **MK-0616** in **hypercholesterolemia** and heterozygous **familial hypercholesterolemia** as well as **CVOT**
  - Initiated Phase 2b for **MK-6024**, GLP-1/glucagon receptor dual agonist, for treatment of **NASH**
- **Immunology**
  - Initiated Phase 3 study for **tulisokibart** (MK-7240) in **ulcerative colitis**

1. Trial conducted in collaboration with Seagen (now Pfizer) and Astellas 2. Previously received accelerated approval for KEYTRUDA + EV for LA mUC cis-ineligible patients based on KN-869 / EV-103
3. Collaboration with Daiichi Sankyo 4. Collaboration with Moderna 5. Collaboration with Kelun Biotech 6. Collaboration with Orion

Shaping the future of oncology with robust portfolio and pipeline

Immuno-oncology

Boost anti-tumor immune responses

KEYTRUDA® (pembrolizumab) Injection 100 mg

vibostolimab/pembro
(MK-7684A)
anti-TIGIT

quavonlimab/pembro
(MK-1308A)
anti-CTLA-4

MK-4830
anti-ILT-4

MK-5890
CD27 agonist

V940[1]
Individualized Neoantigen Therapy

favezelimab/pembro
(MK-4280A)
anti-LAG-3

MK-0482
anti-ILT-3

MK-1484
IL-2 Rβγ

Precision Molecular Targeting

Impact pathways that can drive cancer growth

Lynparza™ olaparib[2]

WELIREG™ (belzutifan) 40 mg tablets

nemtabrutinib
(MK-1026)
BTK inhibitor

bomedemstat
(MK-3543)
LSD1 inhibitor

LENVIMA® (lenvatinib) capsules 10 mg and 4 mg[3]
RESULTS THAT MATTER

MK-5684[4]
CYP11A1 inhibitor

MK-1084
KRAS G12C inhibitor

Tissue Targeting

Increase cancer cell sensitivity with ADCs and immune-engagers

MK-2870[5]
TROP2 ADC

MK-1200[5]
Claudin 18.2 ADC

MK-3120[5]
Nectin-4 ADC

zilovertamab vedotin
(MK-2140)
ROR1 ADC

MK-1022[6]
HER3 ADC

MK-2400[6]
B7H3 ADC

MK-5909[6]
CDH6 ADC

Undisclosed preclinical ADC targets[5]

Bi-and tri-specific T & NK cell engagers[7]

1. Collaboration with Moderna 2. Collaboration with AstraZeneca 3. Collaboration with Eisai 4. Collaboration with Orion
5. Collaboration with Kelun Biotech and internal pipeline 6. Collaboration with Daiichi Sankyo 7. Collaborations with Dragonfly and Janux and others

Advancing one of the industry's broadest ADC programs

	MK-1022[1]	MK-2870[2]	MK-2400[1]	MK-5909[1]	MK-1200[2]	MK-3120[2]
Target	HER3	TROP2	B7H3	CDH6	Claudin 18.2	Nectin-4
Current Tumor Types[4]	EGFRm NSCLC, Breast	NSCLC, Breast	ES-SCLC, Advanced Solid Tumors	Ovarian	GI Tumors	Advanced Solid Tumors
Status	Phase 3[3]	Phase 3	Phase 2	Phase 1	Phase 1	Phase 1
Generic Name	Patritumab deruxtecan	Sacituzumab tirumotecan	Ifinatamab deruxtecan	Raludotatug deruxtecan	Undisclosed	Undisclosed

KEYNOTE-A39 / EV-302[5]

Received **FDA approval** for **KEYTRUDA** in combination with **enfortumab vedotin** in 1L **locally advanced or metastatic urothelial carcinoma**

1. Collaboration with Daiichi Sankyo 2. Collaboration with Kelun Biotech 3. Granted priority review of biologics license application (BLA) in the U.S. based on the Phase 2 HERTHENA-Lung01 data in EGFRm NSCLC that has progressed after EGFR TKI and platinum-based therapies 4. Shows tumor types currently being studied in various phases of development
5. Trial conducted in collaboration with Seagen (now Pfizer) and Astellas

Progressing broad pipeline across key therapeutic areas

Vaccines & Infectious Disease

Pneumococcal Disease: Adults
V116 (PCV, Filed)

RSV
Clesrovimab (mAb, Phase 3)

HIV: Treatment
Islatravir (NRTTI, Phase 3)

Dengue
V181 (LATV, Phase 2)

HIV: PrEP
MK-8527 (NRTTI, Phase 2a)

Pneumococcal Disease: Pediatrics
V117 (PCV, Phase 1)

Cardiometabolic

PAH
Sotatercept (activin signaling inhibitor, Filed)

Lipid Lowering
MK-0616 (Oral PCSK9 inhibitor, Phase 3)

Chronic Heart Failure (without worsening event)
VERQUVO (sGC stimulator, Phase 3)

PAH
MK-5475 (Inhaled sGC stimulator, Phase 2/3)

Thrombosis
MK-2060 (Factor XI inhibitor, Phase 2)

NASH
MK-6024 (GLP-1/glucagon receptor dual agonist, Phase 2b)

Immunology

Inflammatory Bowel Disease
Tulisokibart (MK-7240) (TL1A inhibitor, Phase 3)

Vitiligo, Lupus
MK-6194 (IL-2 mutein, Phase 2a)

Immune Mediated Disease
MK-8690 (CD30L antagonist, Phase 1)

Neuroscience

Schizophrenia
MK-8189 (PDE10 inhibitor, Phase 2)

Alzheimer's Disease
MK-2214 (Anti-Tau mAb, Phase 1)

Alzheimer's Clinical Syndrome
MK-4334 (Alpha 7 Nicotinic Acetylcholine Receptor PAM, Phase 1)

Narcolepsy
MK-6552 (Undisclosed, Phase 1)

Primary completion date in 2024 per clinicaltrials.gov

Tulisokibart (MK-7240): potential first-in-class mechanism of action with opportunities across multiple indications

- **Potential first and best-in-class TL1A** with dual mechanism of action (anti-inflammatory and anti-fibrotic)
- Phase 2 induction efficacy **comparable or superior** to leading approved agents
- Safety profile to date **in-line with safest approved agents** on the market
- **Initiated Phase 3 program in UC** and ongoing programs in **other indications**

	Ulcerative Colitis	Crohn's Disease	SSc-ILD
Phase	Phase 3 ongoing	Phase 3 to start in 2024	Phase 2 ongoing
Design	Study 1: induction and maintenance Study 2: induction	Not disclosed	Safety and efficacy in patients with SSc-ILD
Status	PCD: November 2026	N/A	PCD: December 2025

Expanding robust pipeline with opportunity for patient impact, long-term growth and value creation well into the next decade

	Prior Outlook	Updated Outlook
Oncology (excludes innovation from marketed products)	**>$10B** Includes TROP-2[1], ROR-1, CYP11A1i[2], LSD-1i, KRASi, BTKi and others	**>$20B** Now includes HER3, B7H3 and CDH6 ADCs[3] and V940 (INT)[4]
Cardiometabolic	**>$10B** Includes sotatercept, MK-0616, MK-2060, MK-5475 and Verquvo[5]	**~$15B** Now includes MK-6024, and reflects increased confidence supported by clinical data readouts for sotatercept and MK-0616
Immunology	**Multibillion** in each indication (CD and UC) for tulisokibart	**Multibillion** in each indication (CD and UC) for tulisokibart

Additional Opportunities in Late-Phase Pipeline Programs Across Vaccines, Neurosciences, HIV and Animal Health, Early-Phase Programs & Additional Potential Business Development

Note: All dollar figures above are non-risk adjusted annual sales by the mid 2030s
1. Collaboration with Kelun Biotech 2. Collaboration with Orion 3. Collaboration with Daiichi Sankyo 4. Collaboration with Moderna
5. Collaboration with Bayer, includes expanded indication to chronic heart failure without a worsening event for VERQUVO

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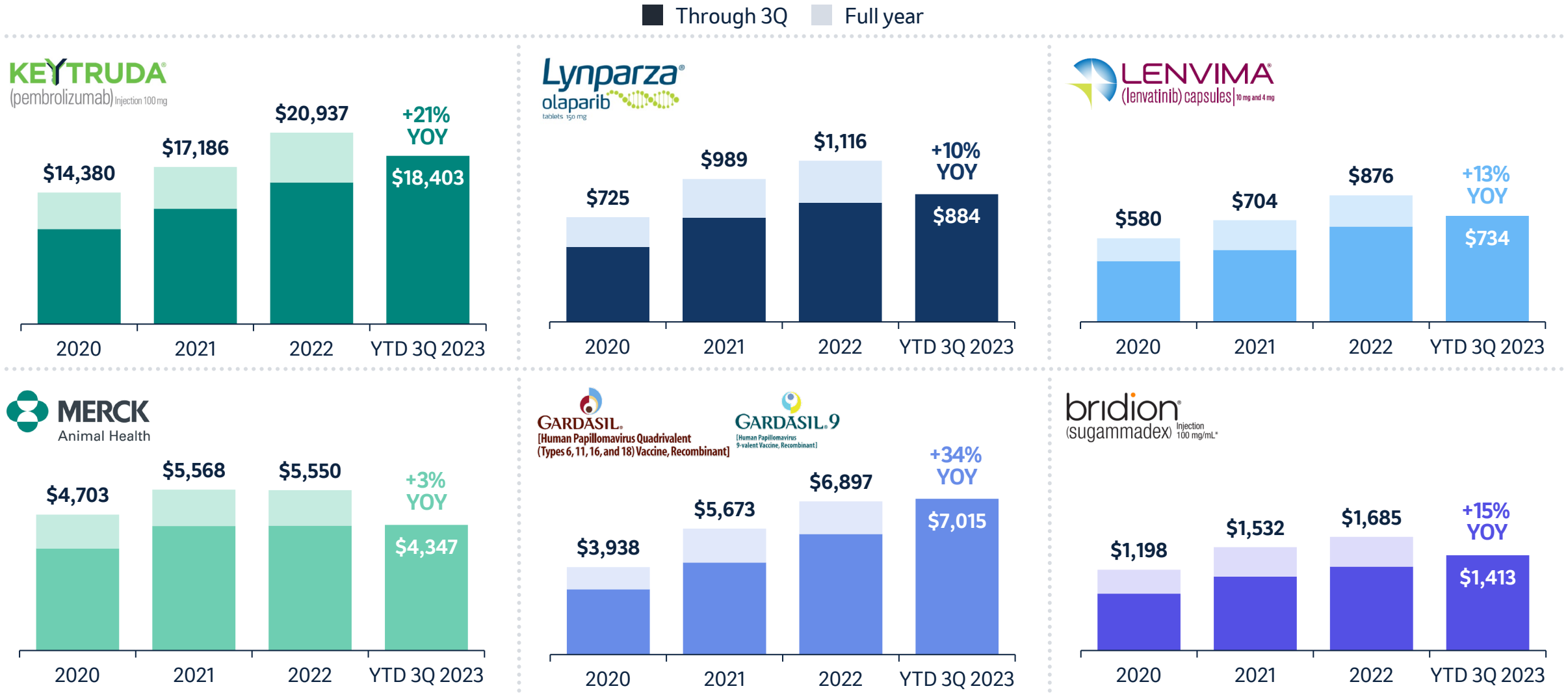
Q&A

Rob Davis
Chairman and Chief Executive Officer

Dr. Dean Li
President, Merck Research Laboratories

Appendix

Sustained solid global performance across key growth pillars



All growth rates exclude the impact of foreign exchange. All growth rates represent 3Q YTD growth.
$ In millions.
Lynparza in collaboration with AstraZeneca. Lenvima in collaboration with Eisai.

Acronyms

ADC – Antibody-drug conjugate

CD – Crohn's Disease

CVOT – Cardiovascular outcomes trial

DAC – Degrader-antibody conjugate

FDA – Food & Drug Administration

EGFRm – Epidermal growth factor receptor mutated

GI – Gastrointestinal

LA – Locally advanced

LATV – Live attenuated tetravalent vaccine

INT – Individualized neoantigen therapy

mAb – Monoclonal antibody

mCRPC – Metastatic castration-resistant prostate cancer

mUC – Metastatic urothelial cancer

NASH – Nonalcoholic steatohepatitis

NRTTI – Nucleoside reverse transcriptase translocator inhibitor

NSCLC – Non-small cell lung cancer

PAH – Pulmonary arterial hypertension

PAM – Positive allosteric modulator

PCV – Pneumococcal conjugate vaccine

PDC – Peptide-drug conjugate

PCD – Primary completion date

PDUFA – Prescription drug user fee act

PrEP – Pre-exposure prophylaxis

sGC – soluble guanylate cyclase

SSc-ILD – Systemic Sclerosis associated with Interstitial Lung Disease

TKI – Tyrosine kinase inhibitor

UC – Ulcerative Colitis