Strategy and Business Update

Rob Davis
Chairman and Chief Executive Officer
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

- 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:

- 2021: +15%
- 2022: +12%
- 2023: +9%

**Significant pipeline advancements**

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

- Oncology
- Cardiovascular
- HIV
- Immunology
- Vaccines

**Strategic business development**

~$50B\textsuperscript{1} invested since 2019 including:

- Prometheus Biosciences
- Daiichi-Sankyo

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 disease¹
- 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

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.
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 *peroperative treatment* for certain resectable stages of NSCLC (KN-671)
  - **KEYTRUDA + EV** for LA mUC (KN-A39 / EV-302\(^1\))
  - **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 20\(^{th}\))
  - Patritumab deruxtecan\(^2\) in LA and metastatic EGFR-mutated NSCLC granted priority review (PDUFA June 26\(^{th}\))

- **Notable Phase 3 trial initiations include:**
  - V940\(^3\) in adjuvant melanoma & NSCLC
  - MK-2870\(^4\) in EGFRm NSCLC
  - Bomedemstat in essential thrombocytemia
  - MK-5684\(^5\) in mCRPC

**Vaccines & Infectious Disease**

- **Pneumococcal**
  - Granted priority review for **V116**, for prevention of invasive pneumococcal disease and pneumococcal pneumonia in adults (PDUFA June 17\(^{th}\))
    - Presented positive V116 Phase 3 data in *vaccine-naive* 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 26\(^{th}\))
  - 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

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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-CTLA-4
  - quavonlimab/pembro (MK-1308A)
  - anti-CTLA-4
  - MK-4830
  - anti-ILT-4
  - MK-5890
  - CD27 agonist

- **V940**
  - 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)*
  - MK-5684
  - CYP11A1 inhibitor

- **Welireg** *(belzutifan)*
  - nemtabrutinib (MK-1026)
  - BTK inhibitor

- **bomedemstat** *(MK-3543)*
  - LSD1 inhibitor

**Tissue Targeting**
Increase cancer cell sensitivity with ADCs and immune-engagers

- **MK-2870**
  - TROP2 ADC

- **MK-1200**
  - Claudin 18.2 ADC

- **MK-3120**
  - Nectin-4 ADC

- **zilovertamab vedotin** *(MK-2140)*
  - ROR1 ADC

- **MK-5909**
  - Undisclosed preclinical ADC targets

- **MK-1022**
  - HER3 ADC

- **MK-2400**
  - B7H3 ADC

- **MK-1022**
  - CDH6 ADC

- **MK-5909**
  - Bi-and tri-specific T & NK cell engagers

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Advancing one of the industry’s broadest ADC programs

<table>
<thead>
<tr>
<th>Target</th>
<th>Status</th>
<th>Current Tumor Types</th>
<th>Generic Name</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>HER3</td>
<td>Phase 3³</td>
<td>EGFRm NSCLC, Breast</td>
<td>Patritumab deruxtecan</td>
<td>3</td>
</tr>
<tr>
<td>TROP2</td>
<td>Phase 3</td>
<td>NSCLC, Breast</td>
<td>Sacituzumab tirumotecan</td>
<td>1</td>
</tr>
<tr>
<td>B7H3</td>
<td>Phase 2</td>
<td>ES-SCLC, Advanced Solid Tumors</td>
<td>Ifinatamab deruxtecan</td>
<td>2</td>
</tr>
<tr>
<td>CDH6</td>
<td>Phase 1</td>
<td>Ovarian</td>
<td>Raludotatug deruxtecan</td>
<td>2</td>
</tr>
<tr>
<td>Claudin 18.2</td>
<td>Phase 1</td>
<td>GI Tumors</td>
<td>Undisclosed</td>
<td></td>
</tr>
<tr>
<td>Nectin-4</td>
<td>Phase 1</td>
<td>Advanced Solid Tumors</td>
<td>Undisclosed</td>
<td></td>
</tr>
</tbody>
</table>

**KEYNOTE-A39 / EV-302⁵**

Received [FDA approval](https://www.fda.gov) for KEYTRUDA in combination with *enfortumab vedotin* in 1L locally advanced or metastatic urothelial carcinoma

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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 HERATHENA-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

<table>
<thead>
<tr>
<th>Vaccines &amp; Infectious Disease</th>
<th>Cardiometabolic</th>
<th>Immunology</th>
<th>Neuroscience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pneumococcal Disease: Adults</strong></td>
<td><strong>PAH</strong></td>
<td><strong>Inflammatory Bowel Disease</strong></td>
<td><strong>Schizophrenia</strong></td>
</tr>
<tr>
<td>V116 (PCV, Filed)</td>
<td>Sotatercept (activin signaling inhibitor, Filed)</td>
<td>Tulisokibart (MK-7240) (TL1A inhibitor, Phase 3)</td>
<td>MK-8189 (PDE10 inhibitor, Phase 2)</td>
</tr>
<tr>
<td><strong>RSV</strong></td>
<td><strong>Lipid Lowering</strong></td>
<td><strong>Vitiligo, Lupus</strong></td>
<td><strong>Alzheimer’s Disease</strong></td>
</tr>
<tr>
<td>Clesrovimab (mAb, Phase 3)</td>
<td>MK-0616 (Oral PCSK9 inhibitor, Phase 3)</td>
<td>MK-6194 (IL-2 mutein, Phase 2a)</td>
<td>MK-2214 (Anti-Tau mAb, Phase 1)</td>
</tr>
<tr>
<td><strong>HIV: Treatment</strong></td>
<td><strong>Chronic Heart Failure (without worsening event)</strong></td>
<td><strong>Immune Mediated Disease</strong></td>
<td><strong>Alzheimer’s Clinical Syndrome</strong></td>
</tr>
<tr>
<td>Ilatravir (NRTTI, Phase 3)</td>
<td>VERQUVO (sGC stimulator, Phase 3)</td>
<td>MK-8690 (CD30L antagonist, Phase 1)</td>
<td>MK-4334 (Alpha 7 Nicotinic Acetylcholine Receptor PAM, Phase 1)</td>
</tr>
<tr>
<td><strong>Dengue</strong></td>
<td><strong>PAH</strong></td>
<td><strong>Narcolepsy</strong></td>
<td><strong>Narcolepsy</strong></td>
</tr>
<tr>
<td>V181 (LATV, Phase 2)</td>
<td>MK-5475 (Inhaled sGC stimulator, Phase 2/3)</td>
<td>MK-6552 (Undisclosed, Phase 1)</td>
<td></td>
</tr>
<tr>
<td><strong>HIV: PrEP</strong></td>
<td><strong>Thrombosis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MK-8527 (NRTTI, Phase 2a)</td>
<td>MK-2060 (Factor XI inhibitor, Phase 2)</td>
<td></td>
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</tr>
<tr>
<td><strong>Pneumococcal Disease: Pediatrics</strong></td>
<td><strong>NASH</strong></td>
<td></td>
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</tr>
<tr>
<td>V117 (PCV, Phase 1)</td>
<td>MK-6024 (GLP-1/glucagon receptor dual agonist, Phase 2b)</td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Ulcerative Colitis</th>
<th>Crohn’s Disease</th>
<th>SSc-ILD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase</strong></td>
<td>Phase 3 ongoing</td>
<td>Phase 3 to start in 2024</td>
<td>Phase 2 ongoing</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Study 1: induction and maintenance Study 2: induction</td>
<td>Not disclosed</td>
<td>Safety and efficacy in patients with SSc-ILD</td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td>PCD: November 2026</td>
<td>N/A</td>
<td>PCD: December 2025</td>
</tr>
</tbody>
</table>
Expanding robust pipeline with opportunity for patient impact, long-term growth and value creation well into the next decade

<table>
<thead>
<tr>
<th>Prior Outlook</th>
<th>Updated Outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oncology</strong> (excludes innovation from marketed products)</td>
<td><strong>&gt;$20B</strong></td>
</tr>
<tr>
<td></td>
<td>Now includes HER3, B7H3 and CDH6 ADCs(^3) and V940 (INT)(^3)</td>
</tr>
<tr>
<td><strong>Cardiometabolic</strong></td>
<td><strong>~$15B</strong></td>
</tr>
<tr>
<td></td>
<td>Now includes MK-6024, and reflects increased confidence supported by clinical data readouts for sotatercept and MK-0616</td>
</tr>
<tr>
<td><strong>Immunology</strong></td>
<td><strong>&gt;$10B</strong></td>
</tr>
<tr>
<td></td>
<td>Includes TROP-2(^1), ROR-1, CYP11A1(^2), LSD-1(i), KRAS(i), BTK(i) and others</td>
</tr>
<tr>
<td><strong>Multibillion in each indication (CD and UC) for tulisokibart</strong></td>
<td><strong>Multibillion in each indication (CD and UC) for tulisokibart</strong></td>
</tr>
</tbody>
</table>

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
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.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADC</td>
<td>Antibody-drug conjugate</td>
</tr>
<tr>
<td>CD</td>
<td>Crohn’s Disease</td>
</tr>
<tr>
<td>CVOT</td>
<td>Cardiovascular outcomes trial</td>
</tr>
<tr>
<td>DAC</td>
<td>Degrader-antibody conjugate</td>
</tr>
<tr>
<td>FDA</td>
<td>Food &amp; Drug Administration</td>
</tr>
<tr>
<td>EGFRm</td>
<td>Epidermal growth factor receptor mutated</td>
</tr>
<tr>
<td>GI</td>
<td>Gastrointestinal</td>
</tr>
<tr>
<td>LA</td>
<td>Locally advanced</td>
</tr>
<tr>
<td>LATV</td>
<td>Live attenuated tetravalent vaccine</td>
</tr>
<tr>
<td>INT</td>
<td>Individualized neoantigen therapy</td>
</tr>
<tr>
<td>mAb</td>
<td>Monoclonal antibody</td>
</tr>
<tr>
<td>mCRPC</td>
<td>Metastatic castration-resistant prostate cancer</td>
</tr>
<tr>
<td>mUC</td>
<td>Metastatic urothelial cancer</td>
</tr>
<tr>
<td>NASH</td>
<td>Nonalcoholic steatohepatitis</td>
</tr>
<tr>
<td>NRTTI</td>
<td>Nucleoside reverse transcriptase translocator inhibitor</td>
</tr>
<tr>
<td>NSCLC</td>
<td>Non-small cell lung cancer</td>
</tr>
<tr>
<td>PAH</td>
<td>Pulmonary arterial hypertension</td>
</tr>
<tr>
<td>PAM</td>
<td>Positive allosteric modulator</td>
</tr>
<tr>
<td>PCV</td>
<td>Pneumococcal conjugate vaccine</td>
</tr>
<tr>
<td>PDC</td>
<td>Peptide-drug conjugate</td>
</tr>
<tr>
<td>PCD</td>
<td>Primary completion date</td>
</tr>
<tr>
<td>PDUFA</td>
<td>Prescription drug user fee act</td>
</tr>
<tr>
<td>PrEP</td>
<td>Pre-exposure prophylaxis</td>
</tr>
<tr>
<td>sGC</td>
<td>Soluble guanylate cyclase</td>
</tr>
<tr>
<td>SSc-ILD</td>
<td>Systemic Sclerosis associated with Interstitial Lung Disease</td>
</tr>
<tr>
<td>TKI</td>
<td>Tyrosine kinase inhibitor</td>
</tr>
<tr>
<td>UC</td>
<td>Ulcerative Colitis</td>
</tr>
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</table>