MSD Pipeline

Q1 2024 Reflecting Pipeline to February 23, 2024

Lead-in language

The chart below reflects the company's research pipeline as of **February 23, 2024**. Candidates shown in Phase 3 include specific products and the date such candidate entered into Phase 3 development. Candidates shown in Phase 2 include the most advanced compound with a specific mechanism or, if listed compounds have the same mechanism, they are each currently intended for commercialization in a given therapeutic area. Small molecules and biologics are given MK-number designations and vaccine candidates are given V-number designations. Except as otherwise noted, candidates in Phase 1, additional indications in the same therapeutic area (other than with respect to cancer and certain other indications) and additional claims, line extensions or formulations for in-line products are not shown.

1. Being developed in a collaboration.
2. Being developed in combination with Keytruda
3. Being developed as monotherapy and/or in combination with Keytruda

▶ Moved forward since last pipeline update.

MSD pipeline as of February 23, 2024

Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
Cancer NSCLC quavonlimab **MK-1308**[2]	Cancer CRC quavonlimab + pembrolizumab **MK-1308A**	Thrombosis **MK-2060**	Heme zilovertamab vedotin **MK-2140**	Cancer SCLC ifinatamab deruxtecan **MK-2400**[1]
Cancer Neoplasm Malignant **MK-2870**[1, 3]	Cancer Advanced solid tumors Prostate KEYTRUDA® **MK-3475**	Cancer Cutaneous Squamous Cell pembrolizumab + hyaluronidase subcutaneous **MK-3475A**	Cancer NSCLC favezelimab **MK-4280**[2]	▶ Cancer Bladder Cutaneous Squamous Cell Endometrial Esophageal Melanoma RCC favezelimab + pembrolizumab **MK-4280A**
Pulmonary Arterial Hypertension **MK-5475**	▶ Cancer Neoplasm Malignant boserolimab **MK-5890**[2]	NASH efinopegdutide **MK-6024**	▶ Systemic Lupus Erythematosus **MK-6194**	▶ Cancer Endometrial Esophageal HCC Prostate Rare cancers **WELIREG™** **MK-6482**[3]

MSD pipeline as of February 23, 2024

1. Being developed in a collaboration.
2. Being developed in combination with Keytruda
3. Being developed as monotherapy and/or in combination with Keytruda
4. On FDA clinical hold
5. On partial clinical hold for higher doses than those used in current clinical trials
6. Phase 2b development costs are being co-funded

Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
Cancer Advanced solid tumors **LYNPARZA®** **MK-7339** [1,3]	Cancer Biliary Bladder Breast Cervical CRC Endometrial Esophageal Gastric HNSCC HCC Ovarian Prostate vibostolimab + pembrolizumab **MK-7684A**	Cancer HNSCC **LENVIMA®** **MK-7902** [1, 2]	Pulmonary Hypertension due to Left Heart Disease sotatercept **MK-7962**	Schizophrenia **MK-8189** [6]
HIV-1 prevention **MK-8527**	HIV-1 Infection islatravir+MK-8507 **MK-8591B** [4]	HIV-1 Infection islatravir+lenacapavir **MK-8591D** [1,5]	Dengue fever virus Vaccine **V181**	

MSD pipeline as of February 23, 2024

1. Being developed in a collaboration.
2. Being developed in combination with Keytruda
3. Being developed as monotherapy and/or in combination with Keytruda
4. On partial clinical hold for higher doses than those used in current clinical trials
5. Available in the U.S. under Emergency Use Authorization

▶ Moved forward since last pipeline update.

Phase 3	Phase 3	Phase 3	Phase 3
Hypercholesterolemia **MK-0616**	Cancer NSCLC patritumab deruxtecan **MK-1022**[1] **(EU)**	Cancer Heme nemtabrutinib **MK-1026**	Cancer RCC quavonlimab + pembrolizumab **MK-1308A**
Respiratory syncytial virus clesrovimab **MK-1654**	▶ Cancer Endometrial NSCLC **MK-2870**[1,3]	Cancer Cutaneous Squamous Cell Carcinoma (EU) Hepatocellular (EU) Mesothelioma Ovarian SCLC **KEYTRUDA®** **MK-3475**	Cancer NSCLC pembrolizumab + hyaluronidase subcutaneous **MK-3475A**
▶ Cancer Myeloproliferative Disorders bomedemstat **MK-3543**	Cancer CRC Heme favezelimab + pembrolizumab **MK-4280A**	Anti-Viral COVID-19 molnupiravir **MK-4482**[1,5] **(US)**	▶ Cancer Prostate **MK-5684**[1]
Ulcerative Colitis tulisokibart **MK-7240**	Cancer NSCLC SCLC **LYNPARZA®** **MK-7339**[1,2]	Cancer Melanoma NSCLC SCLC vibostolimab + pembrolizumab **MK-7684A**	Cancer Esophageal Gastric **LENVIMA®** **MK-7902**[1,2]
HIV-1 infection doravirine + islatravir **MK-8591A**[4]	Pneumococcal Vaccine Adult **V116** **(EU)**	▶ Cancer Melanoma NSCLC **V940**[1,2]	

1. Being developed in a collaboration
2. In Dec 2023, FDA issued a CLR for the NDA for gefapixant. MSD is reviewing the feedback to determine next steps.

▶ Moved forward since last pipeline update.

MSD pipeline as of February 23, 2024

New Molecular Entities Under Review	**New Molecular Entities** Under Review	**Certain Supplemental Filings** Under Review	**Certain Supplemental Filings** Under Review	**Certain Supplemental Filings** Under Review
▶ Previously Treated Locally Advanced or Metastatic EGFR-Mutated NSCLC (HERTHENA-Lung01) patritumab deruxtecan **MK-1022** [1] **(US)**	▶ von Hippel-Lindau (VHL) disease (LIGHTSPARK-004) **WELIREG® MK-6482 (EU)**	1L Locally Advanced Unresectable or Metastatic Biliary Tract Cancer (KN966) **KEYTRUDA® MK-3475 (JPN)**	▶ Primary Advanced or Recurrent Endometrial Carcinoma (KN868) **KEYTRUDA® MK-3475 (US)**	1L HER2 negative Locally Advanced Unresectable or Metastatic Gastric Cancer (KN859) **KEYTRUDA® MK-3475 (JPN)**
Cough gefapixant **MK-7264 (US**[2]**)**	▶ Pulmonary Arterial Hypertension (STELLAR) sotatercept **MK-7962 (US, EU)**	Resectable Stage II, IIIA or IIIB NSCLC (KN671) **KEYTRUDA® MK-3475 (EU, JPN)**	▶ 1L Locally Advanced or Metastatic Urothelial Cancer (KNA39) **KEYTRUDA® MK-3475 (EU, JPN)**	▶ High-Risk Locally Advanced Cervical Cancer (KNA18) **KEYTRUDA® MK-3475 (EU)**
▶ Pneumococcal Vaccine Adult **V116 (US)**		▶ Previously Treated Advanced Renal Cell Carcinoma (LIGHTSPARK-005) **WELIREG® MK-6482 (EU)**		

1. Approvals obtained within the last 3 months.
2. Being developed in a collaboration

▶ Moved forward since last pipeline update.

MSD pipeline as of February 23, 2024

Certain Supplemental Approvals[1]	**Certain Supplemental** Approvals[1]	**Certain Supplemental** Approvals[1]
▶ FIGO 2014 Stage III-IVA Cervical Cancer (KNA18) **KEYTRUDA® MK-3475 (US)**	▶ 1L Locally Advanced Unresectable or Metastatic Biliary Tract Cancer (KN966) **KEYTRUDA® MK-3475 (EU, CHN)**	▶ 1L HER2 negative Locally Advanced Unresectable or Metastatic Gastric Cancer (KN859) **KEYTRUDA® MK-3475 (US, EU, CHN)**
▶ 2L Hepatocellular Cancer secondary to hepatitis B (KN394) **KEYTRUDA® MK-3475 (US)**	▶ 1L Locally Advanced or Metastatic Urothelial Cancer (KNA39) **KEYTRUDA® MK-3475 (US)**	▶ Previously Treated Advanced Renal Cell Carcinoma (LIGHTSPARK-005) **WELIREG® MK-6482 (US)**
▶ Prophylaxis of CMV in kidney transplant patients **PREVYMIS™ MK-8228 (EU)**		

Forward-looking statement

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 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, 2023 and the company's other filings with the Securities and Exchange Commission (SEC) available at the SEC's Internet site (www.sec.gov).

No duty to update

The information contained in the presentation set forth below was current as of February 23, 2024. While this presentation remains on the company's website the company assumes no duty to update the information to reflect subsequent developments. Consequently, the company will not update the information contained in the presentation and investors should not rely upon the information as current or accurate after February 23, 2024.

The chart reflects the MSD research pipeline as of February 23, 2024.

Candidates shown in Phase 3 include specific products. Candidates shown in Phase 2 include the most advanced compound with a specific mechanism in a given therapeutic area. Phase 1 candidates are not shown.