Merck Pipeline

Q2 2022 Reflecting Pipeline to August 2, 2022

Lead-in language

The chart below reflects the company's research pipeline as of **August 2, 2022**. 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.

Merck pipeline as of August 2, 2022[4]

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. In the pipeline chart included in the Company's Form 10-Q for the quarterly period ended June 30, 2022, the Company inadvertently listed MK-1200 in Phase 2. MK-1200 is currently in Phase 1.

▶ Moved forward since last pipeline update.

Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
Cancer NSCLC **MK-0482**[3]	Hypercholesterolemia **MK-0616**	Cancer Heme nemtabrutinib **MK-1026**	Cancer NSCLC quavonlimab **MK-1308**[2]	Cancer CRC Hepatocellular Melanoma SCLC Advanced Solid Tumors quavonlimab + pembrolizumab **MK-1308A**
Treatment Resistant Depression **MK-1942**	Cardiovascular **MK-2060**	▶ Cancer Breast Gastric Heme NSCLC Ovarian Pancreas Solid Tumors zilovertamab vedotin **MK-2140**	Cancer Advanced solid tumors KEYTRUDA® **MK-3475**	NASH **MK-3655**
Cancer Heme NSCLC favezelimab **MK-4280**[2]	Cancer RCC SCLC favezelimab + pembrolizumab **MK-4280A**	▶ Cancer CRC Melanoma NSCLC RCC SCLC **MK-4830**[2]	Pulmonary Arterial Hypertension **MK-5475**	Cancer NSCLC SCLC **MK-5890**[3]
▶ Cancer Neoplasm Malignant **MK-2870**[3]	▶ Cancer Neoplasm Malignant **MK-5684**[1]			

Merck pipeline as of August 2, 2022[5]

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. In the pipeline chart included in the Company's Form 10-Q for the quarterly period ended June 30, 2022, the Company inadvertently listed MK-1200 in Phase 2. MK-1200 is currently in Phase 1.

▶ Moved forward since last pipeline update.

Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
NASH **MK-6024**	Breast Esophageal Gastric HNSCC Melanoma NSCLC Prostate SCLC ladiratuzumab vedotin **MK-6440**[1,3]	Cancer Biliary Certain VHL tumors (EU) CRC HCC Pancreatic Rare cancers WELIREG™[3] **MK-6482**	Overgrowth syndrome miransertib **MK-7075**	Cancer Advanced Solid Tumors Biliary Bladder Cervical CRC Endometrial Gastric NSCLC TUKYSA®[1] **MK-7119**
Cancer Advanced solid tumors LYNPARZA®[1,3] **MK-7339**	Cancer Melanoma vibostolimab **MK-7684**[2]	▶ Cancer Biliary Breast Cervical CRC Endometrial Esophageal HCC Heme HNSCC Prostate vibostolimab + pembrolizumab **MK-7684A**	Cancer Biliary Glioblastoma Pancreas Prostate SCLC LENVIMA®[1,2] **MK-7902**	Schizophrenia **MK-8189**
HIV-1 Infection Islatravir+MK-8507 **MK-8591B**[4]	HIV-1 Infection islatravir+lenacapavir **MK-8591D**[1,4]	Chikungunya virus Vaccine **V184**	Cancer Breast Cutaneous Squamous Cell Carcinoma HNSCC Melanoma Solid Tumors **V937**	

Merck pipeline as of August 2, 2022

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. Available in the U.S. under Emergency Use Authorization

▶ Moved forward since last pipeline update.

Phase 3	Phase 3	Phase 3	Phase 3
Cancer RCC quavonlimab + pembrolizumab **MK-1308A**	Respiratory syncytial virus clesrovimab **MK-1654**	Cancer NSCLC pembrolizumab subcutaneous **MK-3475**	Cancer Biliary tract Cutaneous Squamous Cell Carcinoma (EU) Gastric (EU) Hepatocellular (EU) Mesothelioma Ovarian Prostate SCLC **KEYTRUDA®** **MK-3475**
Cancer CRC favezelimab + pembrolizumab **MK-4280A**	Anti-Viral COVID-19 molnupiravir **MK-4482** [1,5] **(US)**	Cancer RCC **WELIREG™** **MK-6482** [3]	Cancer Breast TUKYSA® [1] **MK-7119**
Cancer NSCLC SCLC LYNPARZA® **MK-7339** [1,3]	Cancer NSCLC **SCLC** vibostolimab + pembrolizumab **MK-7684A**	Cancer CRC Esophageal Gastric HNSCC Melanoma NSCLC LENVIMA® [1,2] **MK-7902**	Pulmonary Arterial Hypertension sotatercept **MK-7962**
HIV-1 prevention islatravir **MK-8591** [4]	HIV-1 infection doravirine + islatravir **MK-8591A** [4]	▶ Pneumococcal Vaccine Adult **V116**	

Merck pipeline as of August 2, 2022

1. Approvals obtained within the last 24 months
2. Being developed in a collaboration
3. In response to the CRL received Jan 2022, Merck is performing additional analyses and anticipates submitting this information to the FDA in the first half of 2023.

▶ Moved forward since last pipeline update.

New Molecular Entities Under Review	**New Molecular Entities** Approvals[1]	**New Molecular Entities** Approvals[1]	**New Molecular Entities** Approvals[1]	**New Molecular Entities** Approvals[1]	**Emergency Use**
Anti-Viral COVID-19 molnupiravir **MK-4482**[2] **(EU)**	Heart failure VERQUVO® **MK-1242**[2] **(US, EU, JPN, CHN)**	Fungal infection NOXAFIL® **MK-5592** **(CHN)**	Neurofibromatosis type-1 for pediatric KOSELUGO® **MK-5618**[2] **(EU)**	VHL - aRCC WELIREG ™ **MK-6482** **(US)**	Anti-Viral COVID-19 LAGEVRIO® **MK-4482**[2] **(US, JPN)**
Cough gefapixant **MK-7264** **(US**[3]**, EU)**	Cough LYFNUA® **MK-7264** **(JPN)**	Bacterial infection RECARBRIO™ relebactam+ imipenem/cilastatin **MK-7655A** **(JPN)**	Prophylaxis of CMV PREVYMIS **MK-8228** **(CHN)**	Pneumococcal Vaccine Adult VAXNEUVANCE™ **V-114** **(US, EU)**	
Pneumococcal Vaccine Adult **V-114** **(JPN)**					

Merck pipeline as of August 2, 2022

1. Being developed in a collaboration
2. In combination with KEYTRUDA
3. In July 2020, the FDA issued a CRL for Merck's and Eisai's applications. Merck and Eisai intend to submit additional data when available to the FDA.

▶ Moved forward since last pipeline update.

Certain Supplemental Filings Under Review	**Certain Supplemental Filings** Under Review	**Certain Supplemental Filings** Under Review
Cervical Cancer (KN826) KEYTRUDA® **MK-3475** **(JPN)**	Adjuvant Renal Cell Cancer (KN564) KEYTRUDA® **MK-3475** **(JPN)**	High-risk early stage TNBC (KN522) KEYTRUDA® **MK-3475** **(JPN)**
2L hepatocellular cancer (KN394) **KEYTRUDA®** **MK-3475** **(US)**	Adjuvant NSCLC (KN091) **KEYTRUDA®** **MK-3475** **(US, EU)**	BRCA-mutated HER2-negative adjuvant breast cancer (OlympiA) LYNPARZA®[1] **MK-7339** **(JPN)**
Metastatic 1L prostate cancer (PROpel) LYNPARZA®[1] **MK-7339** **(EU, JPN)**	1L metastatic hepatocellular cancer (KN524) LENVIMA® **MK-7902**[1, 2, 3] **(US)**	Pneumococcal Infection for pediatric use Vaxneuvance™ **V114** **(EU, JPN)**

Merck pipeline as of August 2, 2022

1. Approvals obtained within the last 24 months

▶ Moved forward since last pipeline update.

Certain Supplemental Approvals[1]	**Certain Supplemental Approvals**[1]	**Certain Supplemental Approvals**[1]	**Certain Supplemental Approvals**[1]	**Certain Supplemental Approvals**[1]
▶ Vomiting Post Chemo for pediatric use EMEND **MK-0517** **(US)**	HIV-1 infection =>12 years/>35kgs PIFELTRO™ **MK-1439** **(US, EU)**	HIV-1 infection =>12 years/>35kgs DELSTRIGO™ **MK-1439A** **(US, EU)**	Alternative dosing regiment (Q6W) KEYTRUDA® **MK-3475** **(US, EU, JPN, CHN)**	Cervical Cancer (KN826) KEYTRUDA® MK-3475 **(US, EU)**
MSI-H or dMMR Endometrial Cancer (KN158) **KEYTRUDA®** **(US)**	1st line esophageal cancer (KN590) KEYTRUDA® **MK-3475** **(US, EU, JPN, CHN)**	Recurrent LA or metastatic esophageal cancer (KN180/KN181) KEYTRUDA® **MK-3475** **(CHN, JPN)**	1st line head and neck cancer (KN048) KEYTRUDA® **MK-3475** **(CHN)**	Refractory classical Hodgkin lymphoma (rrcHL) (KN204) KEYTRUDA® **MK-3475** **(US, EU)**
Metastatic HER2+ Gastric Cancer (KN811) KEYTRUDA **MK-3475** **(US)**	▶ Adjuvant Melanoma (KN716) KEYTRUDA® **MK-3475** **(US, EU)**	Unresectable or Metastatic MSI-H or dMMR Colorectal Cancer (KN177) KEYTRUDA® **MK-3475** **(EU, JP, CHN)**	Recurrent LA or metastatic cutaneous squamous cell carcinoma (KN629) KEYTRUDA® **MK-3475** **(US)**	Adjuvant Renal Cell Cancer (KN564) KEYTRUDA® **MK-3475** **(US, EU)**
Previously treated TMB-H (KN158) KEYTRUDA® **MK-3475** **(JPN)**	MSI-H or dMMR Five Tumor Basket (KN158) KEYTRUDA® **MK-3475** **(EU)**	Metastatic TNBC (KN355) KEYTRUDA® **MK-3475** **(US, EU, JPN)**	▶ High-risk early stage TNBC (KN522) KEYTRUDA® **MK-3475** **(US, EU)**	Invasive Aspergillosis NOXAFIL® MK-5592 **(US, EU, JPN, CHN)**
▶ cSSTI and Sepsis for pediatric use CUBICIN® **MK-3009** **(JPN)**				

Merck pipeline as of August 2, 2022

1. Approvals obtained within the last 24 months
2. Being developed in a collaboration
3. In combination with KEYTRUDA
4. Not MSI-H/dMMR

▶ Moved forward since last pipeline update.

Certain Supplemental Approvals[1]	**Certain Supplemental** Approvals[1]	**Certain Supplemental** Approvals[1]	**Certain Supplemental** Approvals[1]	**Certain Supplemental** Approvals[1]
▶ gBRCA-mutated HER2-negative adjuvant breast cancer (OlympiA) LYNPARZA® **MK-7339**[2] **(US, EU)**	1L maintenance newly diagnosed advanced ovarian cancer (PAOLA) LYNPARZA® **MK-7339**[2] **(US, EU, JPN)**	1L gBRCAm Pancreatic Cancer (POLO) LYNPARZA® **MK-7339**[2] **(JPN)**	Metastatic prostate cancer (PROfound) LYNPARZA® **MK-7339**[2] **(EU, JPN, CHN)**	HABP/VABP RECARBRIO™ **MK-7655A** **(EU)**
Advanced Endometrial Cancer (KN775) LENVIMA® **MK-7902**[2,3] **(US**[4]**,EU, JPN)**	Advanced unresectable renal cell carcinoma (KN581) LENVIMA® **MK-7902**[2,3] **(US, EU, JPN)**	Thymic Carcinoma (NCCH1508/REMORA) LENVIMA® **MK-7902**[2] **(JPN)**	Differentiated Thyroid Cancer LENVIMA® **MK-7902**[2,3] **(CHN)**	Neuromuscular blockade reversal Pediatric BRIDION® **MK-8616** **(US)**
Diabetes STEGLATRO® **MK-8835**[2] **(CHN)**	▶ Pneumococcal Infection for pediatric use Vaxneuvance™ **V114** **(US)**	HPV Vaccine Girls & Women (9-45yrs.) GARDASIL® **V501** **(CHN)**	HPV Vaccine HPV related anal disease in men GARDASIL® **V501** **(JPN)**	

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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 products that the products 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 2021 Annual Report on Form 10-K 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 August 2, 2022. 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 August 2, 2022.

The chart reflects the Merck research pipeline as of August 2, 2022.

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.