MERCK
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Merck Pipeline

Q3 2022 Reflecting Pipeline to November 3, 2022

Lead-in language

The chart below reflects the company's research pipeline as of **November 3, 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.

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.

Merck pipeline as of November 3, 2022

Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
Cancer NSCLC **MK-0482**[2]	Hypercholesterolemia **MK-0616**	Cancer Heme nemtabrutinib **MK-1026**	Cancer NSCLC quavonlimab **MK-1308**[2]	Cancer CRC Hepatocellular Melanoma SCLC quavonlimab + pembrolizumab **MK-1308A**	Treatment Resistant Depression **MK-1942**
Thrombosis **MK-2060**	Cancer Breast Gastric Heme NSCLC Ovarian Pancreas zilovertamab vedotin **MK-2140**	Cancer Neoplasm Malignant **MK-2870**[1, 3]	Cancer Advanced solid tumors KEYTRUDA® **MK-3475**	NASH **MK-3655**	Cancer NSCLC favezelimab **MK-4280**[2]
▶ Cancer Esophageal RCC SCLC favezelimab + pembrolizumab **MK-4280A**	▶ Cancer CRC Esophageal Melanoma NSCLC Ovarian RCC SCLC **MK-4830**[2]	Pulmonary Arterial Hypertension **MK-5475**	▶ Cancer Prostate **MK-5684**[1]	▶ Cancer NSCLC SCLC boserolimab **MK-5890**[2]	NASH **MK-6024**

Merck pipeline as of November 3, 2022

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

▶ Moved forward since last pipeline update.

Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
Cancer Breast Esophageal Gastric HNSCC Melanoma NSCLC Prostate SCLC ladiratuzumab vedotin **MK-6440** [1, 3]	▶ Cancer Biliary CRC Endometrial Esophageal HCC Pancreatic Rare cancers Certain VHL tumors (EU) **WELIREG™** **MK-6482** [3]	Overgrowth syndrome miransertib **MK-7075**	Cancer Advanced Solid Tumors Biliary Bladder Cervical Endometrial Gastric NSCLC **TUKYSA®** **MK-7119** [1]	Cancer Advanced solid tumors **LYNPARZA®** **MK-7339** [1,3]	Cancer Melanoma vibostolimab **MK-7684** [2]
Cancer Biliary Breast Cervical CRC Endometrial Esophageal Heme HNSCC HCC Prostate vibostolimab + pembrolizumab **MK-7684A**	Cancer Biliary Glioblastoma Pancreas Prostate SCLC **LENVIMA®** **MK-7902** [1, 2]	▶ Pulmonary Hypertension due to Left Heart Disease sotatercept **MK-7962**	Schizophrenia **MK-8189** [6]	HIV-1 Infection islatravir+MK-8507 **MK-8591B** [4]	HIV-1 Infection islatravir+lenacapavir **MK-8591D** [1,5]
▶ Dengue fever virus Vaccine **V181**	Chikungunya virus Vaccine **V184**	▶ Cancer Melanoma **V940** [1]			

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3. Being developed as monotherapy and/or in combination with Keytruda
4. On FDA clinical hold
5. On FDA partial clinical hold
6. 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 Heme favezelimab + pembrolizumab **MK-4280A**	Anti-Viral COVID-19 molnupiravir **MK-4482** [1, 6] **(US)**	Cancer RCC **WELIREG™** **MK-6482** [3]	▶ Cancer Breast CRC **TUKYSA®** **MK-7119** [1]
Cancer NSCLC SCLC **LYNPARZA®** **MK-7339** [1, 3]	Cancer NSCLC SCLC vibostolimab + pembrolizumab **MK-7684A**	Cancer CRC Esophageal Gastric HNSCC Melanoma NSCLC **LENVIMA®** **MK-7902** [1, 2]	Pulmonary Arterial Hypertension sotatercept **MK-7962**
HIV-1 infection doravirine + islatravir **MK-8591A** [5]	Pneumococcal Vaccine Adult **V116**		

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.

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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, JPN)**	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, JPN)**	

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Certain Supplemental Filings Under Review	**Certain Supplemental Filings** Under Review
2L hepatocellular cancer (KN394) **KEYTRUDA®** **MK-3475** **(US)**	Adjuvant NSCLC (KN091) **KEYTRUDA®** **MK-3475** **(US, EU)**
▶ Metastatic 1L prostate cancer (PROpel) **LYNPARZA®** **MK-7339**[1] **(US, EU, JPN)**	Pneumococcal Infection for pediatric use **VAXNEUVANCE™** **V114** **(JPN)**

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3. In combination with KEYTRUDA
4. Not MSI-H/dMMR

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Merck pipeline as of November 3, 2022

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)**	cSSTI and Sepsis for pediatric use **CUBICIN®** **MK-3009** **(JPN)**	▶ High-risk early stage TNBC (KN522) **KEYTRUDA®** **MK-3475** **(US, EU, JPN)**
Metastatic TNBC (KN355) **KEYTRUDA®** **MK-3475** **(US, EU, JPN)**	▶ Cervical Cancer (KN826) **KEYTRUDA®** **MK-3475** **(US, EU, JPN)**	Unresectable or Metastatic MSI-H or dMMR Colorectal Cancer (KN177) **KEYTRUDA®** **MK-3475** **(EU, JP, CHN)**	MSI-H or dMMR Endometrial Cancer (KN158) **KEYTRUDA®** **(US)**	1st line esophageal cancer (KN590) **KEYTRUDA®** **MK-3475** **(US, EU, JPN, CHN)**
Metastatic HER2+ Gastric Cancer (KN811) **KEYTRUDA®** **MK-3475** **(US)**	1st line head and neck cancer (KN048) **KEYTRUDA®** **MK-3475** **(CHN)**	Refractory classical Hodgkin lymphoma (rrcHL) (KN204) **KEYTRUDA®** **MK-3475** **(EU)**	▶ Adjuvant Renal Cell Cancer (KN564) **KEYTRUDA®** **MK-3475** **(US, EU, JPN)**	▶ Adjuvant Melanoma (KN716) **KEYTRUDA®** **MK-3475** **(US, EU, JPN)**
MSI-H or dMMR Five Tumor Basket (KN158) **KEYTRUDA®** **MK-3475** **(EU)**	Alternative dosing regiment (Q6W) **KEYTRUDA®** **MK-3475** **(EU,-CHN)**	Recurrent LA or metastatic cutaneous squamous cell carcinoma (KN629) **KEYTRUDA®** **MK-3475** **(US)**	Previously treated TMB-H (KN158) **KEYTRUDA®** **MK-3475** **(JPN)**	▶ 2L hepatocellular cancer (KN394) **KEYTRUDA®** **MK-3475** **(CHN)**

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Certain Supplemental Approvals[1]	Certain Supplemental Approvals[1]	Certain Supplemental Approvals[1]	Certain Supplemental Approvals[1]	Certain Supplemental Approvals[1]
Invasive Aspergillosis **NOXAFIL®** **MK-5592** **(US, EU, JPN, CHN)**	▶ gBRCA-mutated HER2-negative adjuvant breast cancer (OlympiA) **LYNPARZA®** **MK-7339[2]** **(US, EU, JPN)**	▶ 1L maintenance newly diagnosed advanced ovarian cancer (PAOLA) **LYNPARZA®** **MK-7339[2]** **(JPN, CHN)**	1L gBRCAm Pancreatic Cancer (POLO) **LYNPARZA®** **MK-7339 [2]** **(JPN)**	Metastatic prostate cancer (PROfound) **LYNPARZA®** **MK-7339[2]** **(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, EU)**	HPV Vaccine Girls & Women (9-45yrs.) **GARDASIL®** **V501** **(CHN)**	HPV Vaccine HPV related anal disease in men **GARDASIL®** **V501** **(JPN)**
▶ HPV Vaccine Girls & Women (9-45yrs.) **GARDASIL9®** **V503** **(CHN)**				

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This presentation of Merck & Co., Inc., Kenilworth, 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 November 3, 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 November 3, 2022.

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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.