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Merck Pipeline

Q1 2021 Reflecting Pipeline to May 5, 2021

Lead-in language

The chart below reflects the company's research pipeline as of **May 5, 2021**. 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 May 5, 2021

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

▶ Moved forward since last pipeline update

Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 3	Phase 3	Phase 3
Cancer Hematological malignancies **MK-1026**	NASH **MK-3655**	Cancer Breast Advanced Solid Tumors **ladiratuzumab vedotin** **MK-6440**[1,3]	▶ Cancer Advanced Solid Tumors Biliary Tract Glioblastoma Pancreas **LENVIMA®** **MK-7902**[1,2]	Chikungunya virus Vaccine **V184**	▶ Cancer RCC **MK-1308A**	Cancer Breast TUKYSA® **MK-7119**[1]	HIV-1 infection doravirine/ islatravir **MK-8591A**
▶ Cancer Melanoma NSCLC HCC Advanced Solid Tumors **MK-1308**[2]	Cancer Hematological malignancies NSCLC **MK-4280**[2]	Overgrowth syndrome **MK-7075**	Schizophrenia **MK-8189**	Cancer Breast Cutaneous Squamous Cell Carcinoma HNSCC Melanoma Solid Tumors **V937**	▶ Cancer Biliary tract Cervical (EU) Cutaneous Squamous Cell Carcinoma (EU) Gastric (EU) Hepatocellular (EU) Mesothelioma Ovarian Prostate KEYTRUDA® **MK-3475**	Cancer NSCLC[2] Colorectal[1] SCLC[2] LYNPARZA® **MK-7339**[1,2]	
Respiratory syncytial virus **MK-1654**	Anti-Viral COVID-19 **molnupiravir** **MK-4482**[1]	Cancer Colorectal Gastric Advanced Solid Tumors TUKYSA® **MK-7119**[1]	▶ HIV-1 Infection **islatravir/MK-8507** **MK-8591B**			▶ Cancer NSCLC **MK-7684A**	
Cancer Advanced Solid Tumors **MK-2140**	Cancer NSCLC **MK-4830**	Cancer Advanced solid tumors **LYNPARZA®** **MK-7339**[1,3]	Pneumococcal Vaccine Adult **V116**		Cancer RCC **MK-6482**	▶ Cancer Bladder HNSCC Melanoma Colorectal NSCLC Gastric LENVIMA® **MK-7902**[1,2]	
Cancer Advanced solid tumors **KEYTRUDA®** **MK-3475**	Cancer NSCLC **MK-5890**[2]	▶ Cancer Melanoma **MK-7684**[2]	Cytomegalovirus vaccine **V160**		▶ Acute GVHD **MK-7110**	▶ HIV-1 prevention islatravir **MK-8591**	

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1. Approvals obtained within the last 24 months
2. Being developed in a collaboration

Merck pipeline as of May 5, 2021

▶ Moved forward since last pipeline update

New Molecular Entities Under Review	**New Molecular Entities** Under Review	**New Molecular Entities** Approvals[1]	**New Molecular Entities** Approvals[1]	**New Molecular Entities** Approvals[1]
Heart failure **vericiguat** **MK-1242[2]** **(EU, JPN)**	▶ Cough **gefapixant** **MK-7264** **(US, JPN)**	Heart failure VERQUVO® **MK-1242[2]** **(US)**	▶ Fungal infection **NOXAFIL®** **MK-5592** **(JPN, CHN)**	HPV Vaccine Girls and women **SILGARD®9** **V503** **(JPN)**
Pediatric neurofibromatosis type-1 **KOSELUGO®** **MK-5618[2]** **(EU)**	Bacterial infection **RECARBRIO™** **relebactam+** **imipenem/cilastatin** **MK-7655A** **(JPN)**	HIV-1 infection **PIFELTRO™** **MK-1439** **(JPN, CHN)**	Pediatric neurofibromatosis type-1 **KOSELUGO®** **MK-5618[2]** **(US)**	Ebola vaccine **ERVEBO®** **V920** **(US, EU)**
▶ VHL- aRCC **belzutifan** **MK-6482** **(US)**	Pneumococcal Vaccine Adult **V-114** **(US, EU)**	HIV-1 infection **DELSTRIGO™** **doravirine + lamivudine+ tenofovir disoproxil fumarate** **MK-1439A** **(CHN)**	Bacterial infection **RECARBRIO™** **relebactam+** **imipenem/cilastatin** **MK-7655A** **(US, EU)**	

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Merck pipeline as of May 5, 2021

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.
4. In March 2021, the FDA issued a CRL for Merck's application. Merck is reviewing the letter and will discuss next steps with the FDA.

▶ Moved forward since last pipeline update

Certain Supplemental Filings Under Review	**Certain Supplemental Filings** Under Review	**Certain Supplemental Filings** Under Review
cSSTI and Sepsis for pediatric use **CUBICIN®** **MK-3009** **(JPN)**	High-risk early stage TNBC (KN522) **KEYTRUDA®** **MK-3475** [4] **(US)**	Locally Advanced Cutaneous Squamous Cell Cancer (KN629) **KEYTRUDA®** **MK-3475** **(US)**
▶ TMB-H (KN158) **KEYTRUDA®** **MK-3475** **(JPN)**	1st line metastatic hepatocellular cancer (KN524) **LENVIMA®** **MK-7902**[1,2,3] **(US)**	▶ Alternative dosing regimen (Q6W for combination therapy) **KEYTRUDA®** **MK-3475** **(EU)**
Unresectable or Metastatic MSI-H or dMMR Colorectal Cancer (KN177) **KEYTRUDA®** **MK-3475** **(JPN)**	▶ Advanced unresectable renal cell carcinoma (KN581) **LENVIMA®** **MK-7902**[1,2] **(US, EU, JPN)**	Aspergillosis **NOXAFIL®** **MK-5592** **(US, EU, JPN)**
Metastatic TNBC (KN355) **KEYTRUDA®** **MK-3475** **(EU,JPN)**	▶ Advanced unresectable Metastatic Esophageal Cancer (KN590) **KEYTRUDA®** **MK-3475** **(EU, JPN)**	▶ Advanced endometrial cancer cancer (KN775) **LENVIMA®** **MK-7902**[1,2] **(US, EU, JPN)**

Merck pipeline as of May 5, 2021

1. Approvals obtained within the last 24 months
2. EMA recommended results be included in the medicine's product information but did not recommend an extension of indication

▶ 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]
1st line metastatic non-small cell lung cancer (KN042) **KEYTRUDA® MK-3475[2] (EU)**	3rd line advanced small cell lung cancer (KN158) **KEYTRUDA® MK-3475 (US)**	Recurrent LA or metastatic esophageal cancer (KN180/KN181) **KEYTRUDA® MK-3475 (US, CHN, JPN)**	1st line metastatic squamous non-small cell lung cancer (KN407) **KEYTRUDA® MK-3475 (CHN)**	Recurrent and/or metastatic cutaneous squamous cell carcinoma (KN629) **KEYTRUDA® MK-3475 (US)**
1st line head and neck cancer (KN048) **KEYTRUDA® MK-3475 (US, EU, JPN, CHN)**	Previously treated tumor mutational burden-high (KN158) **KEYTRUDA® MK-3475 (US)**	▶ Refractory classical Hodgkin lymphoma (rrcHL) (KN204) **KEYTRUDA® MK-3475 (US, EU)**	1st line advanced renal cell carcinoma (KN426) **KEYTRUDA® MK-3475 (JPN)**	▶ Alternative dosing regimen (Q6W) **KEYTRUDA® MK-3475 (US,CHN,JPN)**
Non-muscle invasive bladder cancer (NMIBC) (KN057) **KEYTRUDA® MK-3475 (US)**	Unresectable or Metastatic MSI-H or dMMR Colorectal Cancer (KN177) **KEYTRUDA® MK-3475 (US, EU)**	Metastatic TNBC (KN355) **KEYTRUDA® MK-3475 (US)**	▶ 1st line esophageal cancer (KN590) **KEYTRUDA® MK-3475 (US)**	▶ Metastatic HER2+ Gastric Cancer (KN811) **KEYTRUDA® MK-3475 (US)**

Merck pipeline as of May 5, 2021

1. Approvals obtained within the last 24 months
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3. In combination with KEYTRUDA

▶ 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]
HIV-1 + virologically suppressed **PIFELTRO™ MK-1439 (US)**	1st line gBRCAm Pancreatic Cancer (POLO) **LYNPARZA® MK-7339[2] (US, EU, JPN)**	HABP/VABP **ZERBAXA® ceftolozane+ tazobactam MK-7625A (US, EU, JPN)**	Endometrial cancer **LENVIMA® MK-7902[2,3] (US)**	HPV Vaccine Girls & Women (9-45yrs.) **GARDASIL® V501 (CHN)**
HIV-1 + virologically suppressed **DELSTRIGO™ doravirine + lamivudine+ tenofovir disoproxil fumarate MK-1439A (US)**	1st line maintenance newly diagnosed advanced ovarian cancer **(PAOLA) LYNPARZA® MK-7339[2] (US, EU, JPN)**	HABP/VABP **RECARBRIO™ relebactam+ imipenem/ cilastatin MK-7655A (US, EU)**	▶ Thymic Carcinoma (NCCH1508/REMORA) **LENVIMA® MK-7902[1, 2] (JPN)**	HPV Vaccine HPV related anal disease in men **GARDASIL® V501 (JPN)**
1st line advanced ovarian cancer **LYNPARZA® MK-7339[2] (JPN, CHN)**	Metastatic prostate cancer (PROfound) **LYNPARZA® MK-7339[2] (US, EU, JPN)**	Differentiated Thyroid cancer **LENVIMA® MK-7902[2] (CHN)**	Diabetes **STEGLATRO MK-8835[2] (CHN)**	HPV Vaccine Certain HPV related H&N cancers **GARDASIL®9 V503 (US)**

Forward-looking statement

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 2020 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 May 5, 2021. 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 May 5, 2021.

The chart reflects the Merck research pipeline as of May 5, 2021.

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.