Merck Pipeline

Q4 2020 Reflecting Pipeline to Nov 2, 2020
The chart below reflects the company’s research pipeline as of **Nov 2, 2020**. 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 Nov 2, 2020

<table>
<thead>
<tr>
<th>Phase 2</th>
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<th>Phase 3</th>
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</thead>
<tbody>
<tr>
<td><strong>Cancer</strong> Advanced solid tumors</td>
<td><strong>Cancer</strong> Melanoma NSCLC</td>
<td><strong>Cancer</strong> Hematological malignancies NSCLC</td>
<td><strong>Cytomegalovirus vaccine</strong> V160</td>
<td><strong>Cancer</strong> Biliary tract</td>
<td><strong>HIV-1 infection</strong> doravirine/islatravir MK-8591A</td>
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<tr>
<td>KEYTRUDA® MK-3475</td>
<td>MK-1308^2</td>
<td>MK-1026</td>
<td>MK-8591</td>
<td>Breast (EU)</td>
<td>Pneumocojuguate vaccine V114</td>
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<tr>
<td>Cancer Advanced Solid Tumors Colorectal Gastric Glioblastoma Biliary Tract LENVIMA® MK-79021,2</td>
<td>Cancer NSCLC</td>
<td>Hematological malignancies</td>
<td>HIV-1 prevention islatravir MK-8591</td>
<td>Endometrial (EU)</td>
<td>Cough gefapixant MK-7264</td>
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<td></td>
<td>Melanoma NSCLC</td>
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<td>Cutaneous Squamous Cell Carcinoma (EU)</td>
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<td>MK-1308^2</td>
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<td>Endometrial (EU)</td>
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<td>Respiratory syncytial virus</td>
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<td>Esophageal (EU)</td>
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<td>MK-1654</td>
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<td>Gastric (EU)</td>
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<td>Hepatocellular (EU)</td>
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<td>Mesothelioma</td>
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<td>Nasopharyngeal</td>
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<td>Ovarian</td>
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<td>Prostate</td>
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<td>Small cell lung (EU)</td>
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<td>KEYTRUDA® MK-3475</td>
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<tr>
<td>Cancer Advanced solid tumors</td>
<td>Cancer NSCLC Melanoma</td>
<td>Respiratory syncytial virus</td>
<td>Schizophrenia</td>
<td>Cancer Bladder Endometrial HNSCC Melanoma NSCLC LENVIMA® MK-79021,2</td>
<td>Cancer Breast TUKYSA® MK-7119^1</td>
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<tr>
<td>LYNPARZA® MK-73391,3</td>
<td>MK-7684^2</td>
<td>MK-1654</td>
<td>MK-8189</td>
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<td>Cancer Melanoma Cutaneous Squamous Cell Carcinoma Breast HNSCC V937</td>
<td>Cancer Head and neck</td>
<td>Overgrowth syndrome</td>
<td>Pneumococcal Vaccine Adult V116</td>
<td>Cancer NSCLC Colorectal LYNPARZA® MK-73391,2</td>
<td>Cancer Breast TUKYSA® MK-7119^1</td>
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<td>MK-1454^2</td>
<td>MK-7075</td>
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<td>Chikungunya virus Vaccine V184</td>
<td>Anti-Viral COVID 19 molnupiravir MK-4482^1</td>
<td>Cancer Breast Advanced Solid Tumors ladiratuzumab vedotin MK-64401,3</td>
<td>Cancer Colorectal TUKYSA® MK-7119^1</td>
<td>Cancer RCC MK-6482</td>
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</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>New Molecular Entities Under Review</th>
<th>New Molecular Entities Approvals(^1)</th>
<th>New Molecular Entities Approvals(^1)</th>
<th>New Molecular Entities Approvals(^1)</th>
<th>New Molecular Entities Approvals(^1)</th>
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</thead>
<tbody>
<tr>
<td>Pediatric neurofibromatosis type-1 KOSELUGO® MK-5618(^2) (EU)</td>
<td>Fungal infection NOXAFIL® MK-5592 (JPN)</td>
<td>Pediatric hexavalent combination vaccine VAXELIS™ V419(^2) (US)</td>
<td>HIV-1 infection PIFELTRO™ MK-1439 (US, EU, JPN)</td>
<td>HIV-1 infection DELSTRIGO™ doravirine + lamivudine+ tenofovir disoproxil fumarate MK-1439A (EU)</td>
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<tr>
<td>Bacterial infection RECARBROI™ relebactam+ imipenem/cilastatin MK-7655A (JPN)</td>
<td>cUTI and cIAI ZERBAXA® ceftolozane+ tazobactam MK-7625A (JPN)</td>
<td>Bacterial infection RECARBROI™ relebactam+ imipenem/cilastatin MK-7655A (JPN)</td>
<td>Ebola vaccine ERVEBO® V920 (US, EU)</td>
<td>Pediatric neurofibromatosis type-1 KOSELUGO® MK-5618(^2) (US)</td>
</tr>
<tr>
<td>Heart failure vericiguat MK-1242(^2) (US,EU, JPN)</td>
<td>HPV Vaccine Girls and women SILGARD®9 V503 (JPN)</td>
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</tbody>
</table>

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

Moved forward since last pipeline update.
1. Being developed in a collaboration.
2. In combination with KEYTRUDA
3. The company received a CRL in July 2020. Merck and Eisai are reviewing the letter and will submit data to the FDA

Moved forward since last pipeline update.
<table>
<thead>
<tr>
<th>Certain Supplemental Approvals¹</th>
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<tbody>
<tr>
<td>1st line Merkel cell cancer (KN017) KEYTRUDA® MK-3475 (US)</td>
<td>1st line metastatic non-small cell lung cancer (KN042) KEYTRUDA® MK-3475 (US, EU, CHN, JPN)</td>
<td>Alternative dosing regimen (Q6W) KEYTRUDA® MK-3475 (US, EU, JPN)</td>
<td>1st line head and neck cancer (KN048) KEYTRUDA® MK-3475 (US, EU, JPN)</td>
<td>Adjuvant therapy in advanced melanoma cancer (KN054) KEYTRUDA® MK-3475 (US, EU, JPN)</td>
<td>1st line advanced renal cell carcinoma (KN426) KEYTRUDA® MK-3475 (US, EU, JPN)</td>
</tr>
<tr>
<td>Recurrent LA or metastatic esophageal cancer (KN180/KN181) KEYTRUDA® MK-3475 (US, CHN, JPN)</td>
<td>Unresectable or Metastatic MSI-H or dMMR Colorectal Cancer (KN177) KEYTRUDA® MK-3475 (US)</td>
<td>Combination with carboplatin and pemetrexed in 1st line non-squamous non-small cell lung cancer (KN189) KEYTRUDA® MK-3475 (CHN, JPN)</td>
<td>2nd line hepatocellular cancer (KN224) KEYTRUDA® MK-3475 (US)</td>
<td>1st line metastatic squamous non-small cell lung cancer (KN407) KEYTRUDA® MK-3475 (EU, JPN, CHN)</td>
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</tr>
</tbody>
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¹ Approvals obtained within the last 24 months. Moved forward since last pipeline update.
### Merck pipeline as of Nov 2, 2020

1. Approvals obtained within the last 24 months.
2. Being developed in a collaboration.
3. In combination with KEYTRUDA

Moved forward since last pipeline update.

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<th>Certain Supplemental Approvals¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd line metastatic breast cancer <strong>LYNPARZA® MK-7339² (EU)</strong></td>
<td>1st line advanced ovarian cancer <strong>LYNPARZA® MK-7339² (US, EU, JPN, CHN)</strong></td>
<td>1st line maintenance newly diagnosed advanced ovarian cancer (PAOLA) <strong>LYNPARZA® MK-7339² (US)</strong></td>
<td>New tablet formulation and broader approval for ovarian cancer <strong>LYNPARZA® MK-7339² (CHN)</strong></td>
<td>HPV Vaccine Certain HPV related H&amp;N cancers <strong>GARDASIL®9 V503 (US)</strong></td>
</tr>
<tr>
<td>1st line gBRCAm Pancreatic Cancer (POLO) <strong>LYNPARZA® MK-7339² (US, EU)</strong></td>
<td>HIV-1 + virologically suppressed <strong>DELSSTRIGO™ doravirine + lamivudine+ tenofovir disoproxil fumarate MK-1439A (US)</strong></td>
<td>Metastatic prostate cancer (PROfound) <strong>LYNPARZA® MK-7339² (US)</strong></td>
<td>Hypercholesterolemia <strong>ROSUZET® ezetimibe/ rosvuastatin MK-0653H (JPN)</strong></td>
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</tr>
</tbody>
</table>

1. Approvals obtained within the last 24 months.
2. Being developed in a collaboration.
3. In combination with KEYTRUDA
Forward-looking statement

This presentation 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 Merck’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 recent 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.

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The chart reflects the Merck research pipeline as of Nov 2, 2020.

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.