Forward-Looking Statement of Merck & Co., Inc., Kenilworth, NJ, USA

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 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 2017 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).
MERCK ONCOLOGY

A LEADER IN DELIVERING BREAKTHROUGH APPROACHES THAT EXTEND AND IMPROVE THE LIVES OF PEOPLE WITH CANCER

Establish KEYTRUDA as foundational treatment in monotherapy and in combination across multiple tumor types and stages of disease.

Explore combinations and other novel agents to broaden our portfolio in an effort to reach more patients.

Identify patients most likely to benefit through evaluation of biomarkers.

Advance internal pipeline and pursue strategic collaborations and acquisitions to expand oncology portfolio.
SIGNIFICANT PROGRESS IN ONCOLOGY
OVER LAST FEW YEARS

- Clinical trials studying over 30 tumor types: ~700+
- Trials studying KEYTRUDA in combination: ~400+
- Trials demonstrating overall survival: 7
- Approximate number of patients treated worldwide with KEYTRUDA: ~200K
- Approved indications: 10
- FDA Breakthrough Therapy Designations: 12
- Novel assets in the pipeline: 20+
- Assets under collaboration with our partners: ~60
- Tumor types KEYTRUDA is showing activity in: 25+
KEYTRUDA
DEMONSTRATED ANTI-TUMOR ACTIVITY IN MORE THAN 25 CANCER TYPES

KEYTRUDA: BUILDING MOMENTUM
10 APPROVED INDICATIONS

WAVE 1
- ✔ Melanoma
- ✔ NSCLC

WAVE 2
- ✔ Head and Neck
- ✔ Bladder
- ✔ Gastric
- ✔ TNBC
- ✔ Colorectal
- ✔ Hodgkin Lymphoma
- ✔ MSI-High

WAVE 3
- ✔ Esophageal
- ✔ Renal
- ✔ Ovarian
- ✔ Cervical*
- ✔ Prostate
- ✔ Non-Hodgkin Lymphoma*
- ✔ Hepatocellular
- ✔ Other Thoracic Malignancies
- ✔ Gynecological Malignancies
- ✔ Rare Tumors

*Currently under review by the FDA.

DEMONSTRATED OVERALL SURVIVAL IN 7 TRIALS

EXECUTING ON WAVE 2 & 3 WITH CONTINUED PROGRESS
EXPANDING OUR ONCOLOGY PORTFOLIO
THROUGH GLOBAL STRATEGIC COLLABORATIONS

• **World’s first PARP** inhibitor in breast cancer

• Significant **long-term opportunity** across multiple tumors and treatment settings

• **Broasted** clinical development program

• **Breakthrough Therapy Designation** in combination with KEYTRUDA in RCC

• **Approved** as monotherapy in RAI-refractory DTC* and in combination with everolimus in advanced RCC; approved in HCC in Japan and filed HCC in US, EU and China

• **Initiating combination studies** in 11 potential indications across 6 tumor types

*Differentiated Thyroid Cancer*
# EXPLORING 20+ ASSETS IN ONCOLOGY PIPELINE

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<th>Immune Agonists</th>
<th>Negative Immune Regulators</th>
<th>Personalized Cancer Vaccines</th>
<th>Tumor Microenvironment</th>
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<td>STING</td>
<td>IL-10</td>
<td>RNA-based vaccines</td>
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| Cavatak         | Other Agonists              | Oncolytic Viruses           |                        |
|                 | IDO+TDO, TDO                | CTLA-4 Nab                  |                        |
|                 | Multi-Specific Nabs         | CXCR2                       |                        |
|                 | ERK                         | Selumetinib                 |                        |

- **Preclinical Programs**
- **Clinical Programs**
Melanoma

KEYNOTE-054: Pembrolizumab versus placebo after complete resection of high-risk stage III melanoma

AACR 2018

DATA TO HIGHLIGHT

KEYNOTE-189

Randomized, Double-Blind, Phase 3 Study of Pembrolizumab or Placebo plus Pemetrexed and Platinum as First-Line Therapy for Metastatic NSCLC

KEYNOTE-054

Pembrolizumab versus placebo after complete resection of high-risk stage III melanoma: Efficacy and safety results from the double-blinded Phase 3 trial
**KEYNOTE-189**

**PHASE 3 TRIAL COMBINING KEYTRUDA AND CHEMOTHERAPY**

**KEYTRUDA** reduced the risk of death by half compared to chemotherapy alone.

### OS

HR = 0.49  
[all comers]

**KEYTRUDA** is the first immunotherapy in combination with chemotherapy to significantly extend survival in 1L nonsquamous NSCLC patients.

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<th>Events</th>
<th>HR (95% CI)</th>
<th><strong>P</strong></th>
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<td>Pembrolizumab/Pemetrexed/Platinum</td>
<td>31.0%</td>
<td>0.49</td>
<td>&lt;0.00001</td>
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<td>Placebo/Pemetrexed/Platinum</td>
<td>52.4%</td>
<td>0.38-0.64</td>
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**KEYNOTE-189** phase 3 trial combining Keytruda and chemotherapy.
OVERALL SURVIVAL IS THE GOLD STANDARD SETS THE BAR FOR FUTURE TRIALS IN 1L NSQ NSCLC

KEYNOTE-189
OS BENEFIT ACROSS ALL PD-L1 SUBGROUPS

TPS <1%
- Events: Pembrolizumab/Pembrolizumab/Platell: 38.6%
  - HR (95% CI): 0.59 (0.38-0.92)
  - Log-rank P: 0.0095
- Events: Placebo/Pembrolizumab/Platell: 55.6%
  - HR (95% CI): 0.55 (0.34-0.90)
  - Log-rank P: 0.0081

TPS 1-49%
- Events: Pembrolizumab/Pembrolizumab/Platell: 28.9%
  - HR (95% CI): 0.55 (0.34-0.90)
  - Log-rank P: 0.0081
- Events: Placebo/Pembrolizumab/Platell: 48.3%
  - HR (95% CI): 0.55 (0.34-0.90)
  - Log-rank P: 0.0081

TPS ≥50%
- Events: Pembrolizumab/Pembrolizumab/Platell: 25.8%
  - HR (95% CI): 0.42 (0.26-0.68)
  - Log-rank P: 0.0001
- Events: Placebo/Pembrolizumab/Platell: 51.4%
  - HR (95% CI): 0.42 (0.26-0.68)
  - Log-rank P: 0.0001

\(^a\)Nominal and one-sided. Data cutoff date: Nov 8, 2017.
KEYNOTE-189
Randomized, Double-Blind, Phase 3 Study of Pembrolizumab or Placebo plus Pemetrexed and Platinum as First-Line Therapy for Metastatic NSCLC

KEYNOTE-054
Pembrolizumab versus placebo after complete resection of high-risk stage III melanoma: Efficacy and safety results from the double-blinded Phase 3 trial

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DATA TO HIGHLIGHT
KEYNOTE-054
PHASE 3 TRIAL STUDYING KEYTRUDA IN ADJUVANT MELANOMA

HR=0.57

43% reduction in risk of recurrence or death regardless of disease stage, PD-L1 expression or mutation status

DATA DEMONSTRATE PROLONGED RECURRENCE FREE SURVIVAL (RFS) BENEFIT
WHAT TO WATCH: KEY DATA READ-OUTS OVER THE NEXT 18 MONTHS

- 1L NSCLC PD-L1 ≥ 1%: KEYNOTE-042
- 2L HCC: KEYNOTE-224
- 1L SQ NSCLC COMBO: KEYNOTE-407
- 1L H&N MONO/COMBO: KEYNOTE-048
- 1L TNBC: KEYNOTE-522
- 2L+ TNBC: KEYNOTE-119
- cHL: KEYNOTE-204
- 1L GASTRIC MONO/COMBO: KEYNOTE-062
- 2L+ HCC: KEYNOTE-240
- NMIBC BLADDER: KEYNOTE-057
- 1L BLADDER: KEYNOTE-361
- BRCAm OVARIAN (LYNPARZA): SOLO-1
Q&A