IMMUNOGEN

Well-Positioned to Deliver on Milestones

Quarterly Update
February 17, 2017

Nasdaq: IMGN

Forward-Looking Statements

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This presentation includes forward-looking statements based on management's current expectations. These statements include, but are not limited to, ImmunoGen's expectations related to: the occurrence, timing and outcome of potential pre-clinical, clinical and regulatory events related to the Company's and its collaboration partners' product programs; the presentation of preclinical and clinical data on the Company's and its collaboration partners' product candidates; and the financial guidance provided. For these statements, ImmunoGen claims the protection of the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995. Various factors could cause ImmunoGen's actual results to differ materially from those discussed or implied in the forward-looking statements, and you are cautioned not to place undue reliance on these forward-looking statements, which are current only as of the date of these slides. Factors that could cause future results to differ materially from such expectations include, but are not limited to: the timing and outcome of ImmunoGen's and its collaboration partners' research and clinical development processes; the difficulties inherent in the development of novel pharmaceuticals, including uncertainties as to the timing, expense and results of preclinical studies, clinical trials and regulatory processes; ImmunoGen's ability to financially support its product programs; the Company's dependence on its collaborative partners; industry merger and acquisition activity; and other factors more fully described in ImmunoGen's Annual Report on Form 10-K for the fiscal year ended June 30, 2016 and other reports filed with the Securities and Exchange Commission.

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Mark Enyedy

President and Chief Executive Officer

Strategic Direction and Focused Priorities

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BUILD A FULLY-INTEGRATED BIOTECH DELIVERING INNOVATIVE ADC THERAPIES THAT MEANINGFULLY IMPROVE THE LIVES OF CANCER PATIENTS

Execute on speed-to-market for mirvetuximab soravtansine

Commercialize by 2020 for platinum-resistant ovarian cancer

Continue to drive innovation in ADCs as cancer therapies

Payloads, linkers, methods of conjugation

Accelerate earlier-stage portfolio

IMGN779, IMGN632

Lever partnerships to expand impact of innovations and strengthen financials

NOVARTIS Biotest Lilly CYTOMX THERAPEUTICS Takeda SANOFI Bayer Roche AMGEN

ENHANCED FINANCIAL DISCIPLINE

Significant Progress Against Our Goals

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Mirvetuximab Soravtansine

- Obtained FDA and EMA agreement with Phase 3 FORWARD I trial design to support full approval
- Dosed first patient in FORWARD I trial and activated trial sites globally
- Initiated Phase 1b/2 FORWARD II combination study
- Established collaborations, including Merck Keytruda® combination, Clovis Rubraca™ IST, and NCCN clinical studies
- Reported Phase 1 ovarian expansion cohort data at ASCO
- Published findings in *Journal of Clinical Oncology* and *Neoplasia*

Earlier-stage portfolio

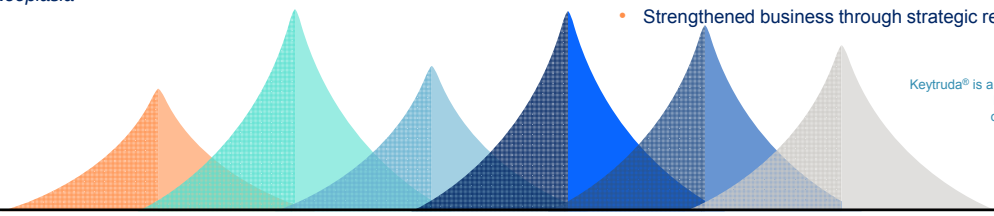
- Initiated Phase 1 clinical testing with IMGN779
- Reported preclinical data, including oral presentation, for IMGN632 at ASH 2016

Partnerships

- Bayer advanced anetumab ravtansine to Phase 2 registration trial
- Sanofi advanced isatuximab to Phase 3
- Novartis advanced HKT288 to Phase 1

Operations

- Strengthened business through strategic review



Value-Creating Milestones Throughout 2017

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MIRVETUXIMAB SORAVTANSINE	• FORWARD I registration trial – Enrolled first patient (✓) – Rapid patient accrual with more than 100 sites becoming active in 2017 • Clinical data presentations – Expanded Phase 1 data (1Q2017) – First data from FORWARD II combination trial, additional expanded Phase 1 data (2Q2017)
EARLIER-STAGE PORTFOLIO	• IMGN779 – Early clinical data – safety (mid-2017) – Expanded clinical data (4Q2017) • IMGN632 – IND activated/Phase 1 initiation (2H2017) • ImmunoGen/CytomX collaboration candidate into preclinical (2017)
BUSINESS OPERATIONS	• Partner progress • New collaboration • Guidance for 2017 (Feb. 2017)

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Dave Johnston

Executive Vice President and Chief Financial Officer

2017 Financial Guidance

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	2017 Guidance *Issued February 17, 2017* ($MM)
Revenues	$70-$75
Operating expenses	$175-$180
Cash/cash equivalents	$35-40

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Mark Enyedy

President and Chief Executive Officer

ImmunoGen Today: The Right Ingredients for Success

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Leadership in ADCs

Lead program in Phase 3

Platform generating novel clinical candidates

Technology validated clinically and through partnerships

Strong cash position

Experienced management team

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Q & A