J.P. Morgan Healthcare Conference

Clay Siegall, Ph.D.

President and Chief Executive Officer

January 11, 2021

Forward-Looking Statements

Certain of the statements made in this presentation are forward looking, such as those, among others, relating to the Company's potential to achieve the noted development and regulatory milestones in 2021 and in future periods; anticipated activities related to the Company's planned and ongoing clinical trials; the potential for the Company's clinical trials to support further development, regulatory submissions and potential marketing approvals in the U.S. and other countries; the opportunities for, and the therapeutic and commercial potential of, ADCETRIS, PADCEV and TUKYSA; the potential to submit a BLA for accelerated approval of tisotumab vedotin; the potential for data from the EV-301 and EV-201 cohort 2 clinical trials to support additional regulatory approvals of PADCEV; the potential for the approval of TUKYSA by the EMA; the Company's expanding global footprint and ability to maximize the global potential of its products; the therapeutic potential of the Company's pipeline agents; the Company's ability to expand its pipeline and achieve future growth as well as other statements that are not historical fact. Actual results or developments may differ materially from those projected or implied in these forward-looking statements. Factors that may cause such a difference include without limitation: risks and uncertainties associated with maintaining or increasing sales of ADCETRIS, PADCEV and TUKYSA due to competition, reimbursement, market adoption by physicians, regulatory action, unexpected adverse events, impacts associated with COVID-19 or other factors; the risk that the Company or its collaborators may be delayed or unsuccessful in planned clinical trial initiations, enrollment in and conduct of clinical trials, obtaining data from clinical trials, planned regulatory submissions, and regulatory approvals in the U.S. and in other countries in each case for a variety of reasons including without limitation the difficulty and uncertainty of pharmaceutical product development, negative or disappointing clinical trial results, unexpected adverse events or regulatory actions and the inherent uncertainty associated with the regulatory approval process; the possibility that the Company may encounter challenges in commercializing its therapeutic agents outside of the United States, including with respect to reimbursement, compliance, operational or other matters; risks relating to the Company's collaboration agreements and its ability to achieve development and commercialization progress thereunder; and risks related to the duration and severity of the COVID-19 pandemic and resulting global economic, financial and healthcare system disruptions. More information about the risks and uncertainties faced by Seagen is contained under the caption "Risk Factors" included in the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 and in the Company's Current Report on Form 8-K filed on December 30, 2020 with the Securities and Exchange Commission. Seagen disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Key 2020 Accomplishments Set Foundation for Continued Growth

ADCETRIS® (brentuximab vedotin) for injection

- Additional ex-U.S. approvals under collaboration with Takeda, including China
- Positive 5-year follow-up data from ECHELON-1 and ECHELON-2 phase 3 trials

PADCEV™ (enfortumab vedotin-ejfv) Injection for IV infusion 20 mg & 30 mg vials

- 1L mUC Breakthrough Therapy Designation in combination with KEYTRUDA
- Significantly improved OS in phase 3 trial
- Positive data in cisplatin-ineligible pivotal trial cohort

TUKYSA® (tucatinib) 50 mg | 150 mg tablets

- Approved in U.S., Australia, Canada, Singapore and Switzerland
- Positive EU CHMP opinion
- Collaboration with Merck ex-US, Europe and Canada

PIPELINE PROGRAMS

- Positive tisotumab vedotin pivotal trial results
- Ladiratuzumab vedotin global collaboration with Merck
- Multiple IND submissions and advancing pipeline of novel targeted therapies

Seagen is Well-Positioned to Deliver on Strategy for Global Expansion and Growth

1

Maximize Global Potential

of three approved products through robust clinical development programs and exceptional commercial execution

2

Advance Late-Stage Programs

toward securing approvals for new products

3

Expand Early-Stage Pipeline

through internal R&D, ADC leadership and high-quality strategic corporate development opportunities

Maximize Global Potential

of three approved products through robust clinical development programs and exceptional commercial execution

Three Approved Drugs Addressing Unmet Medical Needs

Diversified commercial portfolio

Foundation of Care
for CD30-expressing lymphomas

ADCETRIS® brentuximab vedotin | for injection

Collaborator: Takeda

First-in-Class
ADC for urothelial cancer

PADCEV™ enfortumab vedotin-ejfv
Injection for IV infusion 20 mg & 30 mg vials

Collaborator: astellas

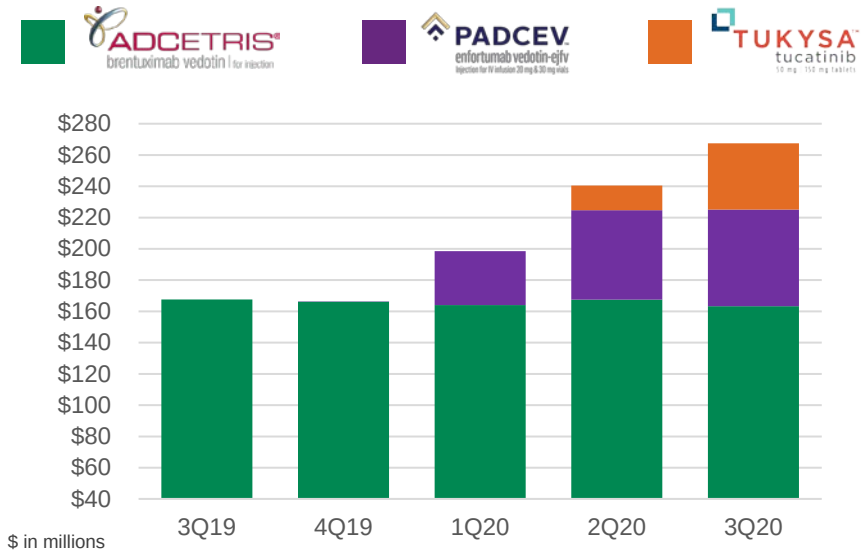
Best-in-Class
TKI for HER2+ breast cancer

TUKYSA® tucatinib
50 mg | 150 mg tablets

Collaborator: MERCK

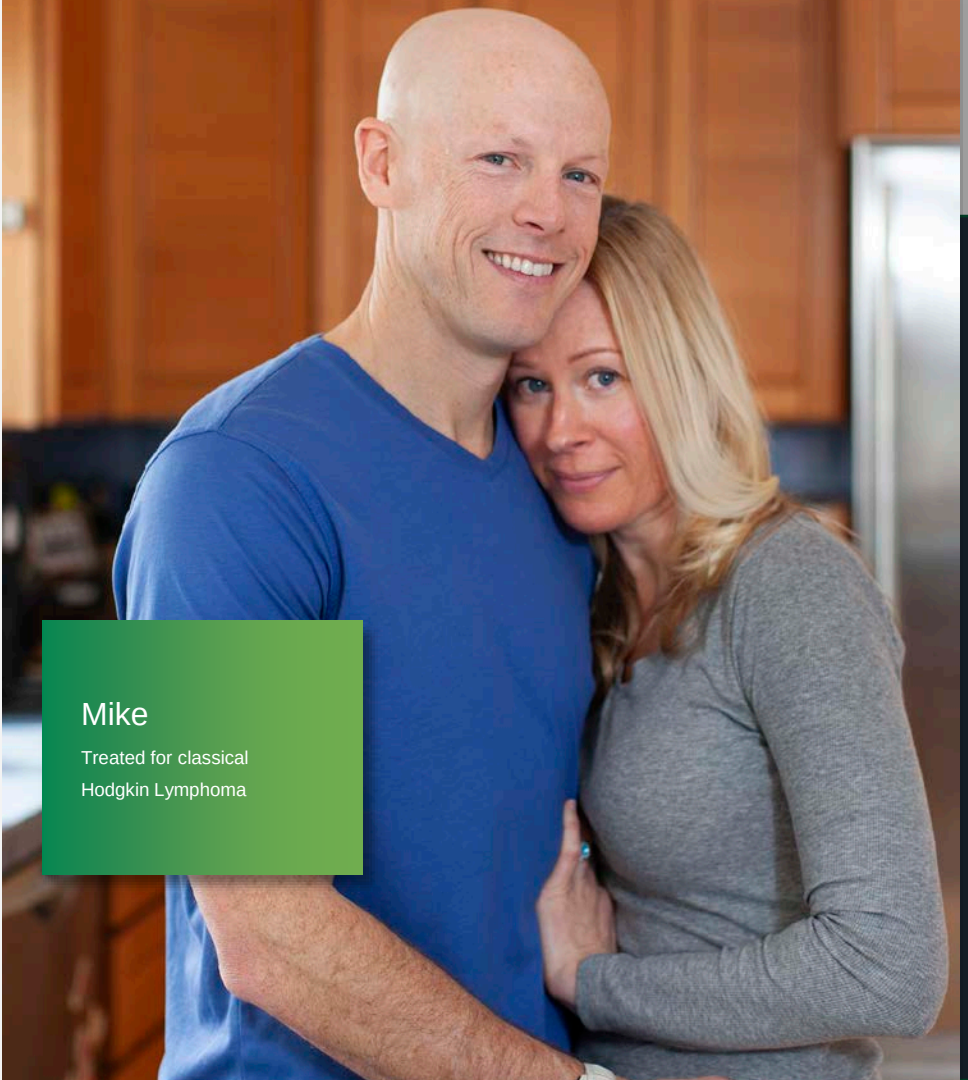
Record Product Sales in 3Q20 Driven by Diverse Commercial Portfolio

Net Product Sales



Net product sales increased 60% over 3Q19 driven by addition of PADCEV and TUKYSA to commercial portfolio

- **ADCETRIS First-line Market Share Maintained**
  - New Hodgkin lymphoma (HL) diagnoses lower than historic levels due to postponed doctor visits amid COVID-19
  - Site of care shift negatively affected gross to net pricing
- **PADCEV YTD Growth Shows Rapid Adoption**
  - Use strong in both academic and community accounts
  - Robust breadth of accounts ordering
- **TUKYSA Strong First Full Quarter of Sales**
  - Uptake attributable to favorable guidelines placement, rapid inclusion in pathways and strong KOL and patient advocacy
  - Patients with and without brain mets being prescribed TUKYSA and number of new accounts ordering was robust



ADCETRIS®
brentuximab vedotin | for injection

Antibody-Drug Conjugate
(ADC) targeting CD30

An Expanding Global Brand

Approved in U.S. and Canada for six indications in Hodgkin lymphoma and peripheral T-cell lymphoma, including frontline

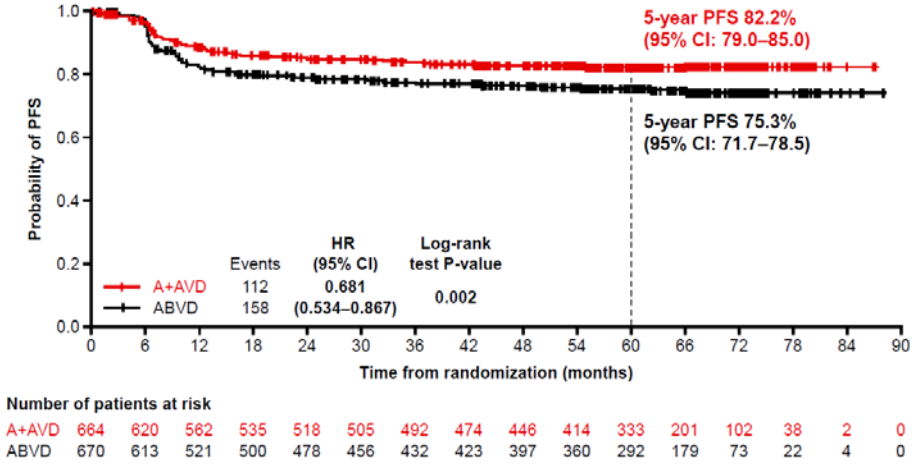
Commercially available in >70 countries with Seagen commercializing in U.S. and Canada, and Takeda ROW

Multiple trials ongoing in HL and other CD30-expressing lymphomas

In collaboration with Takeda ONCOLOGY

ECHELON-1: 5 Years is a Critical Clinical Milestone and Data Continue to Demonstrate Durability of Benefit

- **A+AVD continues to demonstrate a robust and durable treatment benefit across patients, independent of stage, risk factor or PET2 status**



PFS at 5 years in patients with Stage 3/4 disease
Stage 3 **HR=0.593** (0.385-0.915)
Stage 4 **HR=0.731** (0.545-0.980)

Additional findings at 5-year analysis of ADCETRIS + AVD

- Fewer second malignancies
- Higher number of pregnancies
- Peripheral neuropathy improves or resolves over time

Straus, et.al.; ASH 2020 Abstract #2973

Maximizing Potential of ADCETRIS with Multiple Potential Opportunities in Lymphoma, Solid Tumors and HIV

Hodgkin lymphoma	
Frontline	STAGE 3/4: ADCETRIS + OPDIVO® (nivolumab) + AD
	STAGE 1/2: ADCETRIS + OPDIVO + AD
	Unfit for chemotherapy: ADCETRIS
Relapsed/Refractory	Age 5-30: ADCETRIS + OPDIVO
Retreatment	ADCETRIS
CD30-expressing non-Hodgkin lymphoma	
Frontline PTCL	Unfit for chemotherapy: ADCETRIS
Frontline PTCL	<10% CD30 expression: ADCETRIS + CHP
Relapsed/Refractory DLBCL	ADCETRIS + RITUXAN® (rituximab) + REVLIMID® (lenalidomide)
Retreatment PTCL	ADCETRIS
Exploratory trials	
Relapsed/refractory solid tumors	ADCETRIS + KEYTRUDA®
HIV immunologic non-responders	ADCETRIS

Sandy

Treated for urothelial cancer.

Treated with PADCEV

PADCEV™

enfortumab vedotin-ejfv

Injection for IV infusion 20 mg & 30 mg vials

Antibody-Drug Conjugate (ADC) targeting Nectin-4

PADCEV Approval Expanded Commercial Portfolio Into Solid Tumors

FDA accelerated approval in December 2019 for previously treated metastatic urothelial (bladder) cancer

Expanding clinical development program presents multiple opportunities for growth both as single agent and in combination with Keytruda®

In collaboration with astellas

PADCEV Induces High Response Rates and Prolongs PFS and OS in Previously Treated mUC

EV-201 COHORT 1 (N=125) mUC post-platinum and PD(L)-1	
ORR	**44%** [95% CI: 35.1, 53.2]
DOR	**7.6 mos**

Tolerable with a manageable safety profile*

EV-201 COHORT 2 (N~91) mUC cis-ineligible patients, post-PD(L)-1	
ORR	**52%** [95% CI: 40.8, 62.4]
DOR	**10.9 mos**

Tolerable with a manageable safety profile*

- Full data to be presented at ASCO GU 2021

EV-301 (N~600) mUC post-platinum and PD(L)-1	
OS	**Hazard ratio 0.70** [95% CI: 0.56, 0.89] P=0.001
PFS	**Hazard ratio 0.61** [95% CI: 0.50, 0.75] P<0.00001

PADCEV arm adverse events consistent with USPI*

- At a planned interim analysis, the IDMC recommended the study be stopped for efficacy
- Full data to be presented at ASCO GU 2021

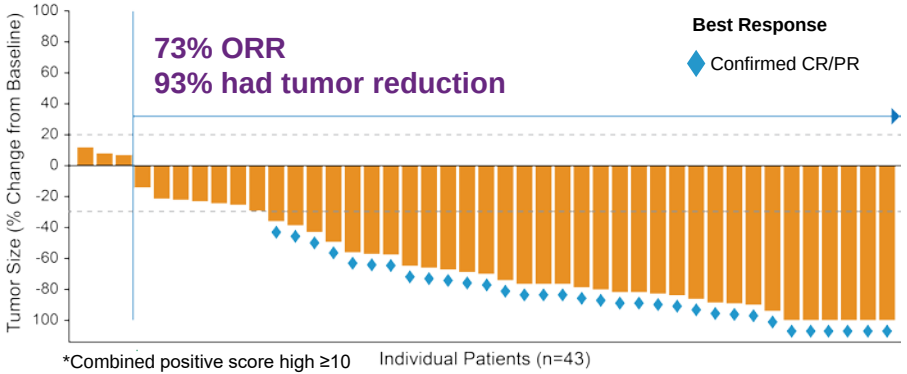
EV-201 cohort 2 and EV-301 supplemental BLA planned in 1Q21

Multiple international submissions planned in 1H21

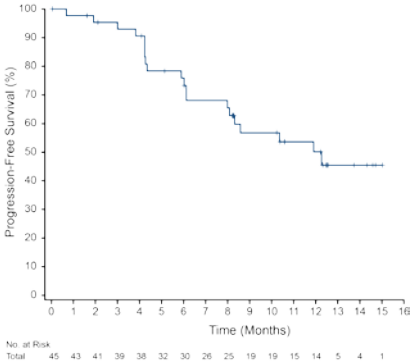
*See important safety information on PADCEV.com

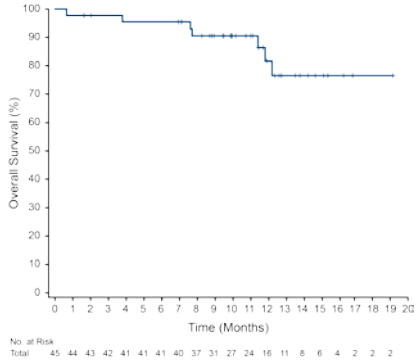
Promising Data with PADCEV plus KEYTRUDA Support Registration Trials in First-line mUC

Maximal Target Lesion Reduction by PD-L1 status and Objective Response Rate per Investigator



Safety profile appears consistent with individual components of the combination, including rash, hyperglycemia, peripheral neuropathy and immune-mediated events





Progression-Free Survival

Median PFS: 12.3 months (95% CI: 7.98, -)

12-month PFS rate: 50.1% (95% CI: 33.0, 65.0)

N=45; 20 Events

Overall Survival

Median OS: not reached

12-month OS rate: 81.6% (95% CI: 62.0, 91.8)

N=45; 7 Events

Data presented at ASCO GU 2020
Rosenburg et.al.; Abstract #441

Two Potential Opportunities for Approval in First-line mUC

Potential U.S. accelerated approval pathway

EV-103 Cohort K

Cohort K added to ongoing EV-103 trial; enrollment projected to complete by end of 2021

Enrolling 150 cisplatin-ineligible patients to PADCEV +/- KEYTRUDA

Primary endpoint ORR, supported by duration of response

Randomized, Phase 3 trial

EV-302

PADCEV + KEYTRUDA vs
Platinum + Gemcitabine

Enrolling 760 patients regardless of platinum eligibility or PD(L)-1 expression

Dual primary endpoints of PFS and OS

Maximizing PADCEV Potential with Broad Development Program in Urothelial Cancer

MONOTHERAPY			COMBINATION w/ KEYTRUDA® (PEMBROLIZUMAB)		MONOTHERAPY
FDA-approved indication	**Expand FDA indication**	**Pursue global submissions**	**Pursue first-line mUC**		**Evaluate muscle-invasive bladder cancer**	**Explore non-muscle invasive disease**
			Accelerated approval pathway	Global trial		
EV-201 Cohort 1 mUC following platinum and PD(L)-1	**EV-201 Cohort 2** mUC post-PD1 BLA planned in 1Q21	**EV-301: randomized trial** mUC post-platinum and PD(L)-1 Marketing applications planned in 1H21	**EV-103 Cohort K: randomized to PADCEV +/- KEYTRUDA** **Cis-ineligible** patients	**EV:302: randomized to PADCEV plus KEYTRUDA vs chemotherapy** **Cis-eligible and ineligible** patients	**KEYNOTE 905/ EV-303 and KEYNOTE B15/ EV-304** Two randomized trials in **cis-ineligible** and **cis-eligible** patients	**Non- muscle-invasive bladder cancer** Clinical trial planned for intravesical administration in BCG-unresponsive patients
APPROVED	**SUBMITTING**	**SUBMITTING**	**ENROLLING**	**ENROLLING**	**ENROLLING**	**PLANNED**

mUC: metastatic urothelial cancer

TUKYSA™
tucatinib
50 mg | 150 mg tablets

Best-in-class oral small molecule tyrosine kinase inhibitor (TKI) targeting HER2

TUKYSA Approval Added Third Drug to Commercial Portfolio

Approved by FDA in April 2020 in combination with other agents for metastatic HER2+ breast cancer

Global regulatory progress and commercialization strategy

- Approved in 4 additional countries under the FDA's Project Orbis
- Positive EU CHMP opinion recommending approval
- Recently granted Promising Innovative Medicine Designation in UK
- Collaboration with Merck to commercialize outside of U.S., Canada and Europe

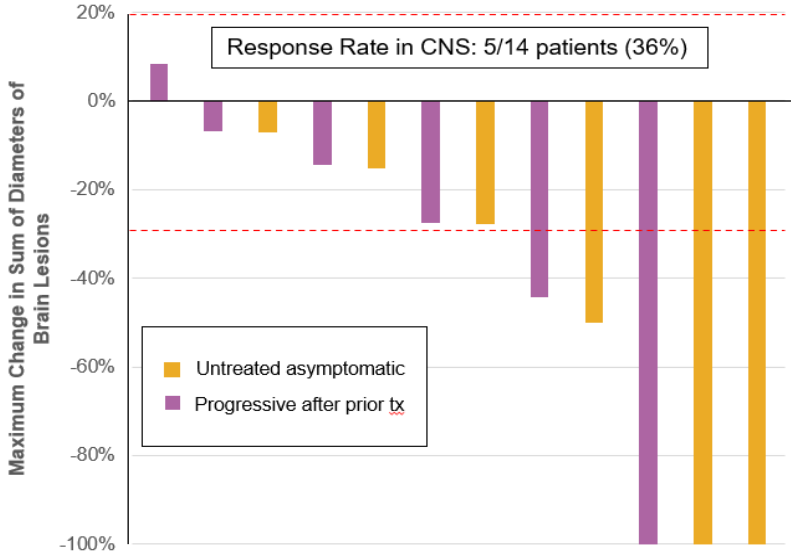
Broad development program in HER2+ cancers

Promising Data with TUKYSA plus Kadcyla Support Registration Trial in First-line and Second-line HER2+ MBC

- In addition to improving outcomes such as PFS and OS, prevention and treatment of brain metastases remains a significant challenge for patients treated with ADCs, such as Kadcyla
- Phase 1b study of TUKYSA in combination with Kadcyla demonstrated safe and active regimen, including in patients with active brain metastases

Best Response	Patients with Measurable Disease Treated with Tucatinib at MTD[a] (n=34)	Patients with Measurable Brain Metastases (n=14)
ORR, n (%)	**16 (47)**	**5 (36)**
CR	1	2 (14)
PR	15	3 (21)
Stable Disease	14 (41)	7 (50)
Progressive Disease	4 (12)	--
Not evaluable	--	2 (14)

a. Tucatinib MTD determined at 300 mg BID



Borges et al. JAMA Oncol. 2018;4(9):1214-1220.

Data presented by V Borges. ASCO, 2016

Broad TUKYSA Development Program Encompasses HER2+ Breast and GI Cancers

BREAST CANCER			GI CANCERS		OTHER TUMORS
Approved indication	**Move into earlier lines of breast cancer**	**Advance into early-stage breast cancer**	**Expand into colorectal carcinoma (CRC)**	**Pursue gastric cancer**	**Explore other solid tumors**
Metastatic breast cancer; 1 or more prior HER2-regimen in metastatic setting **HER2CLIMB**	**Metastatic breast cancer; prior taxane and trastuzumab** **HER2CLIMB-02** Randomized phase 3	**Adjuvant, high risk of relapse** **COMPASS HER2 RD** Randomized phase 3	**Metastatic CRC** **MOUNTAINEER** Phase 2 pivotal Phase 1b trial evaluating 1L combination Enrollment projected to complete by end of 2021	**Metastatic gastric** **MOUNTAINEER-02** Phase 2/3 Phase 1b trial evaluating 1L combination	**HER2+ and HER2 mutant** Phase 2 basket trial
APPROVED	**ENROLLING**	**ENROLLING**	**ENROLLING**	**ENROLLING**	**ENROLLING**

mUC: metastatic urothelial cancer

Advance Late-Stage Programs

toward securing approvals for new products

Tisotumab Vedotin (TV) BLA Submission Planned 1Q21

- ADC targeting Tissue Factor
- Current cervical cancer therapies generally offer limited ORR of <15% with median OS of 6.0 - 9.4 months
- Initiated global, randomized phase 3 trial in recurrent/metastatic cervical cancer
- Evaluating combination with KEYTRUDA or with SOC chemotherapy
- Additional trials in other solid tumors

TV Positioned to Be Our Fourth Commercial Product

InnovaTV 204 Demonstrated Clinically Meaningful and Durable Responses in Recurrent/Metastatic Cervical Cancer

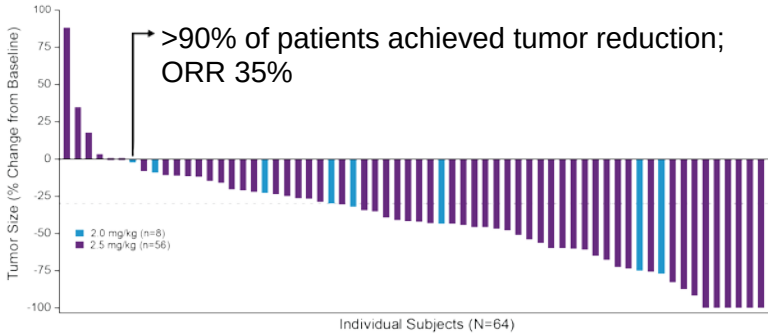
	N=101
Confirmed ORR (95% CI), %	**24 (15.9−33.3)**
CR, n (%)	7 (7)
PR, n (%)	17 (17)
SD, n (%)	49 (49)
PD, n (%)	24 (24)
Not evaluable, n (%)	4 (4)
Median DOR (95% CI)	**8.3 mos (4.2-NR)**

In collaboration with: Genmab

Advancing Ladiratuzumab Vedotin (LV) as an Emerging Late-Stage Program

- ADC targeting LIV-1, which is broadly expressed in breast cancer and other solid tumors
- Encouraging single-agent and KEYTRUDA combination data in triple-negative breast cancer (TNBC)
- Clinical development focused on optimizing dose and schedule
- Basket trial enrolling additional solid tumor types, including lung and esophageal

LV + KEYTRUDA Reduction in Total Tumor Burden
mTNBC Cancer Patients



Data presented at SABCS December 2019

- Ladiratuzumab vedotin global 50:50 development and commercialization
- Broadens and accelerates the development of LV by combining resources with Merck
- Broad joint development program evaluating LV as monotherapy and in combination with KEYTRUDA in TNBC, HR+ breast cancer and other LIV-1-expressing solid tumors
- Seagen to co-commercialize and book sales in US and Europe

In collaboration with: MERCK

Expand Early-Stage Pipeline

through internal R&D, ADC leadership and high-quality strategic corporate development opportunities

Deep Pipeline of Novel ADCs and Empowered Antibodies

ADC Technology

- SGN-CD228A
- SGN-B6A
- SGN-STNV
- SGN ADC (undisclosed)
- SGN ADC (undisclosed)

- Clinically validated auristatin payloads
- Novel drug linkers
- Unique targets with first-in-class antibodies

SEA Technology

- SEA-CD40
- SEA-TGT
- SEA-BCMA
- SEA-CD70

- Enhanced engagement of activating Fc gamma receptor
  - Amplified immune agonism
  - Direct tumor cell killing

Early pipeline as of January 2021

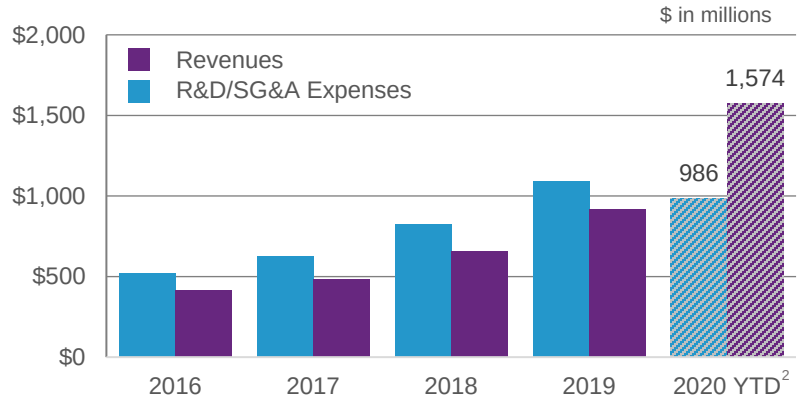
Strong Financial Position Fuels Future Company Investments

Third Quarter 2020 Financial Results

	Three months ended Sept 30, 2020	Nine months ended Sept 30, 2020
TOTAL REVENUES	**$1.1B**	**$1.6B**
ADCETRIS U.S./Canada net sales	$163.3M	$494.9M
PADCEV U.S. net sales	$61.8M	$153.5M
TUKYSA U.S. net sales	$42.4M	$58.1M
Royalty revenues	$35.9M	$87.5M
Collaboration and license agreement revenues	$758.3M	$780.3M
CASH & INVESTMENTS[1]	**$1.7B**	
DEBT	**None**	

Q4 and Year 2020 Earnings Call on February 11, 2021

Total Revenues and Expenses



- 2020 total revenues driven by product sales growth and $725M license revenue from the Merck agreements
- Investment across the pipeline to fuel future growth

[1] Cash does not include $1B SPA that closed in October 2020. [2] Nine months ended Sept 30, 2020. Note: Amounts may not total due to rounding.

Important Milestones and Growth Catalysts in 2021

Maximize Global Potential

of three approved products through robust clinical development programs and exceptional commercial execution

- **Advance 10 registrational trials** across ADCETRIS, PADCEV and TUKYSA
- **Report results from PADCEV EV-201 cohort 2 and EV-301** at ASCO GU
- **Submit PADCEV sBLA** for EV-201 cohort 2 and EV-301 in 1Q21
- **Complete enrollment in PADCEV EV-103 Cohort K** by end of 2021
- **Complete enrollment in TUKYSA MOUNTAINEER** trial by end of 2021

Advance Late-Stage Programs

toward securing approvals for new products

- **Submit TV BLA** in 1Q21
- **Enroll innovaTV 301** global confirmatory trial
- **Report TV data** in other solid tumors
- **Report LV data** as monotherapy and/or combination
- **Potential to initiate multiple pivotal trials** across pipeline

Expand Early-Stage Pipeline

through internal R&D, ADC leadership and high-quality strategic corporate development opportunities

- **Report data from phase 1 programs** at appropriate medical meetings, including SEA-CD40
- **Initiate phase 1 trial** of SGN-STNV
- **Submit 2-3 INDs** for novel product candidates


Seagen®