TARGETING CANCER WITH POWER AND PRECISION

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NASDAQ: SESN

FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this presentation, including statements regarding our strategy, future operations, clinical development of our protein therapies, potential milestone and royalty payments under the Roche license agreement, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions are intended to identify forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, although not all forward-looking statements contain these identifying words.

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LATE-STAGE COMPANY DEVELOPING TREATMENTS FOR CANCER

Phase 3 registration trial for VICINIUM™ for high-grade non-muscle invasive bladder cancer (NMIBC); ENROLLMENT COMPLETE

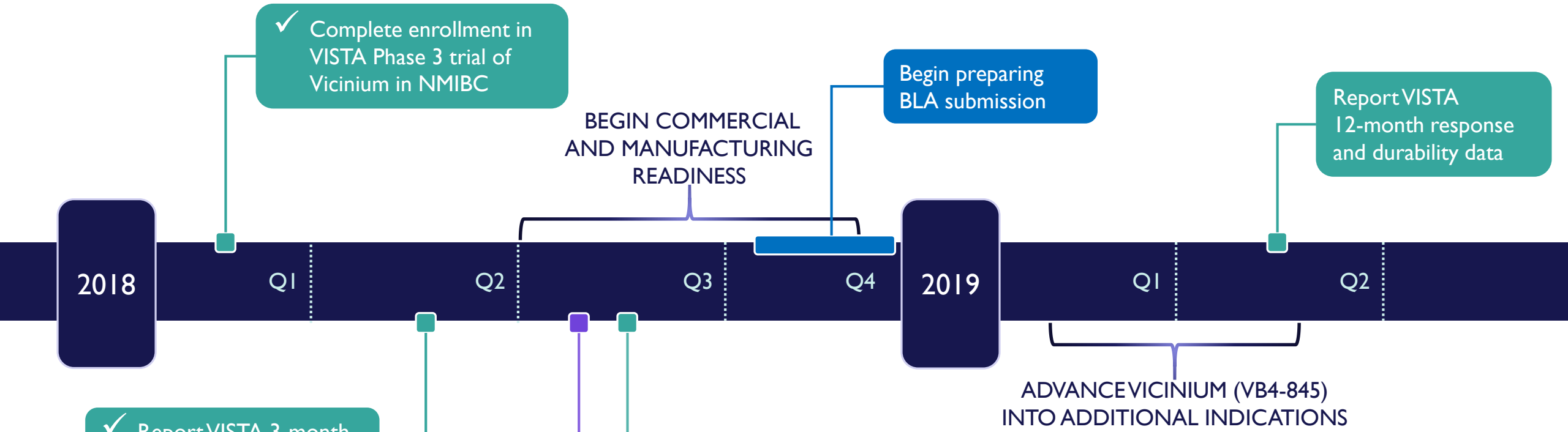
POSITIVE 3-MONTH PHASE 3 DATA in NMIBC*

Vicinium expansion potential via CHECKPOINT INHIBITOR COMBINATIONS in a range of tumor types

NEXT-GENERATION fusion proteins design to improve upon and overcome challenges of existing ADCs

*Presented May 21, 2018 in plenary session at AUA Annual Meeting

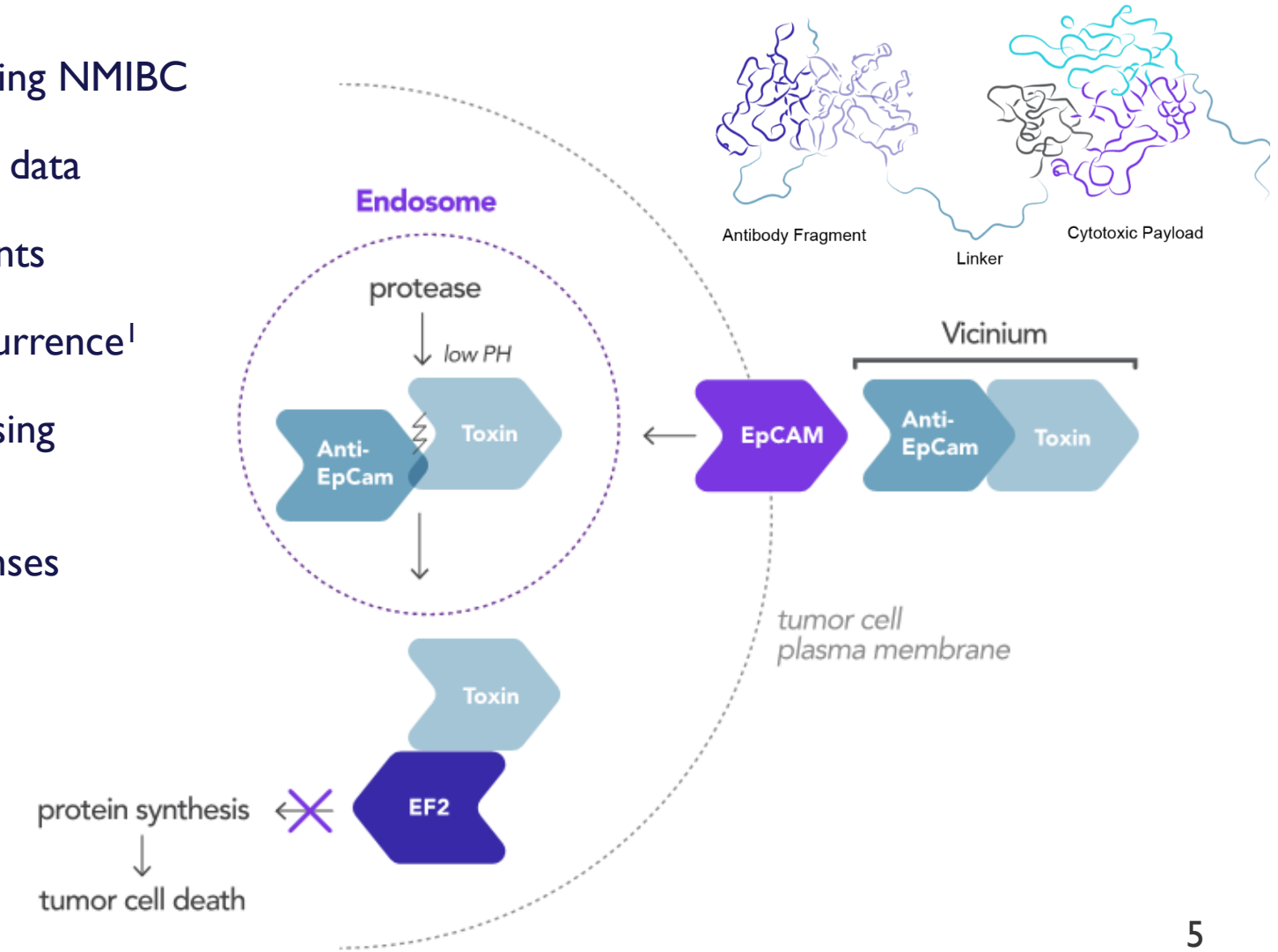
2018 Milestones Leading to BLA Preparation



VICINIUM™

Efficacy, Safety and Unique Mechanism of Action

- Targeted therapy with unique modality for treating NMIBC
- Efficacy established in NMIBC; positive 3-month data
- Well-tolerated with limited serious adverse events
- Durability of responses; 2+ years to disease recurrence[1]
- Simple administration; potential for in-home dosing by medical professional
- Potential to enhance anti-tumor immune responses in combination with I/O agents

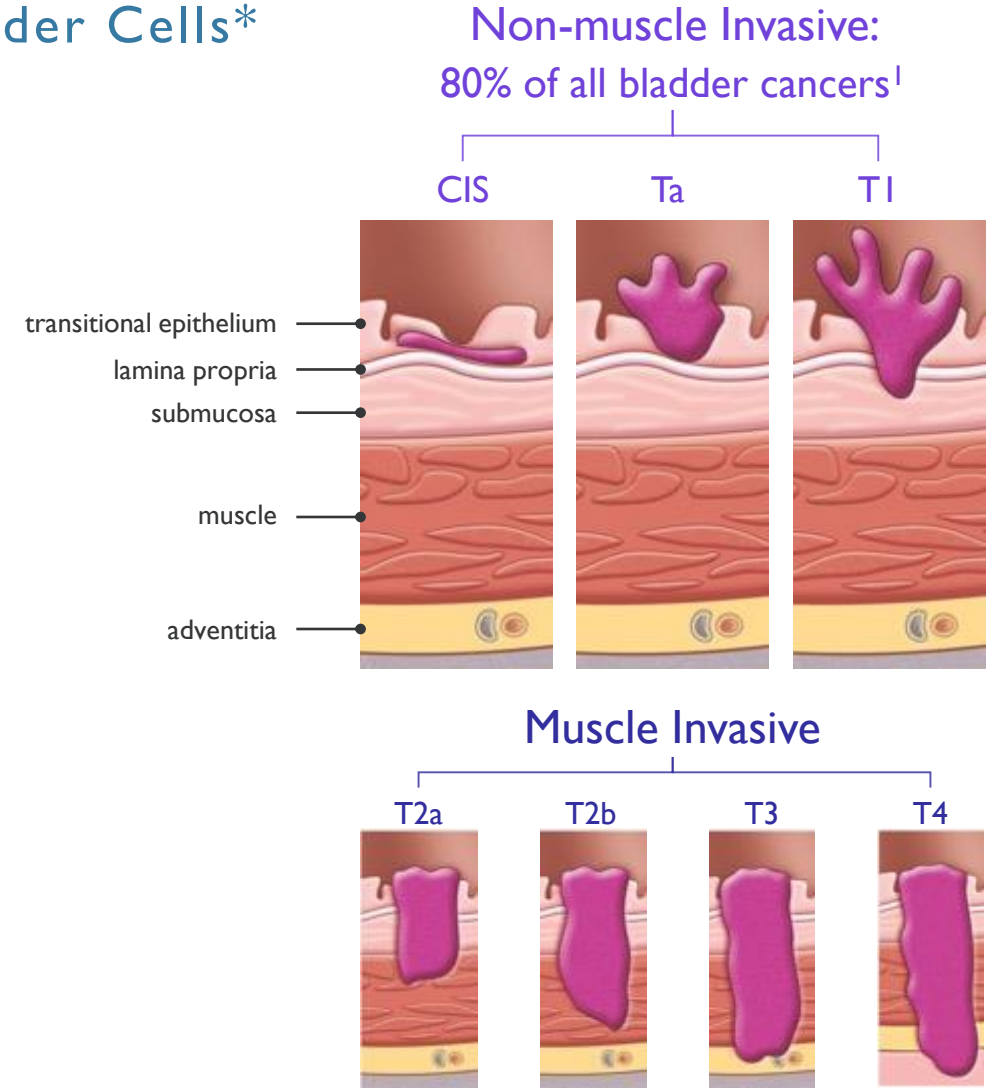


EpCAM: epithelial cell adhesion molecule
ETA: Pseudomonas Exotoxin A

Strong Rationale for Vicinium for High-grade NMIBC

98% High-grade NMIBCs Express EpCAM; Minimal-to-no EpCAM Expression on Normal Bladder Cells*

- Carcinoma in situ (CIS, 10%[1])
  - All high-grade
  - 73% recurrence with concomitant disease
  - >50% progress to muscle invasive[2]
- Papillary stage Ta (60%[1])
  - 18% are high-grade[2]
  - ~50% recur
- Papillary stage T1 (30%[1])
  - Nearly all high-grade[1]
  - Worse prognosis with concomitant CIS[2]
  - 80% recur; half progress to muscle invasive[3]



*Data generated in prior internal studies using internal antibody

[1]Aldousari, S. Can Urol Assoc J. 2010 Feb. [2]Anastasiadis A. *Therapeutic Advances in Urology* 2012. [3]Nepple Can Urol Assoc J. 2009

Image source: Pugashetti, N. Non-Muscle-Invasive Bladder Cancer: Review of Diagnosis and Management, 2011

BLADDER CANCER: Highly Prevalent and Most Expensive Cancer to Treat in US[1]

6th most common cancer[2]

72 years
median age at diagnosis[2]

$4B+
in annual costs[1]

- ~82,000 new cases diagnosed annually in U.S.; 2x prevalence in EU[2]
- Majority of patients treated in community urological centers
- bacillus Calmette-Guérin (BCG) remains SOC since 1980s; ~50% of patients do not respond or relapse within 3 years[3,4]
  - Major complications can appear after systemic absorption of BCG[5]
  - BCG treatment limited by its side effects[3]
- ***Survivors face life-long risk of recurrence with stage progression***

[1]Mossanen M. Curr Opin Urol. 2014 [2]National Cancer Institute, SEER Cancer Stat Facts: Bladder Cancer, 2017
[3]Aldousari, S. Can Urol Assoc J. 2010 Feb [4]Sylvestor, RJ. J Urol. 2005 Jul [5]Anastasiadis A. *Therapeutic Advances in Urology* 2012.

NO SIGNIFICANT TREATMENT INNOVATION IN 30+ YEARS

BLADDER REMOVAL: PRIMARY RECOMMENDED APPROACH AFTER BCG

60-70% LIFE-TIME RISK OF RADICAL CYSTECTOMY[1]

- Significant morbidity (30%-60% within 30–90-days)[2]
- Mortality (2-9% within 6 months)[3]
- High complication rate within 90-days[2] (64%)
- Many require ER visits (35%) and readmission (26%)[2]

LIFE FOLLOWING CYSTECTOMY REQUIRES CATHETERIZATION AND URINARY DIVERSION

- Potential for further BCG supply shortages
- Last U.S. drug approved (1998) limited to BCG-refractory CIS in patients for whom immediate cystectomy would be associated with unacceptable morbidity or mortality[4]
  - 12-month CRR of ~10%
  - Painful dosing administration; challenging toxicities (spasm, urinary incontinence, urinary tract infection, nausea)

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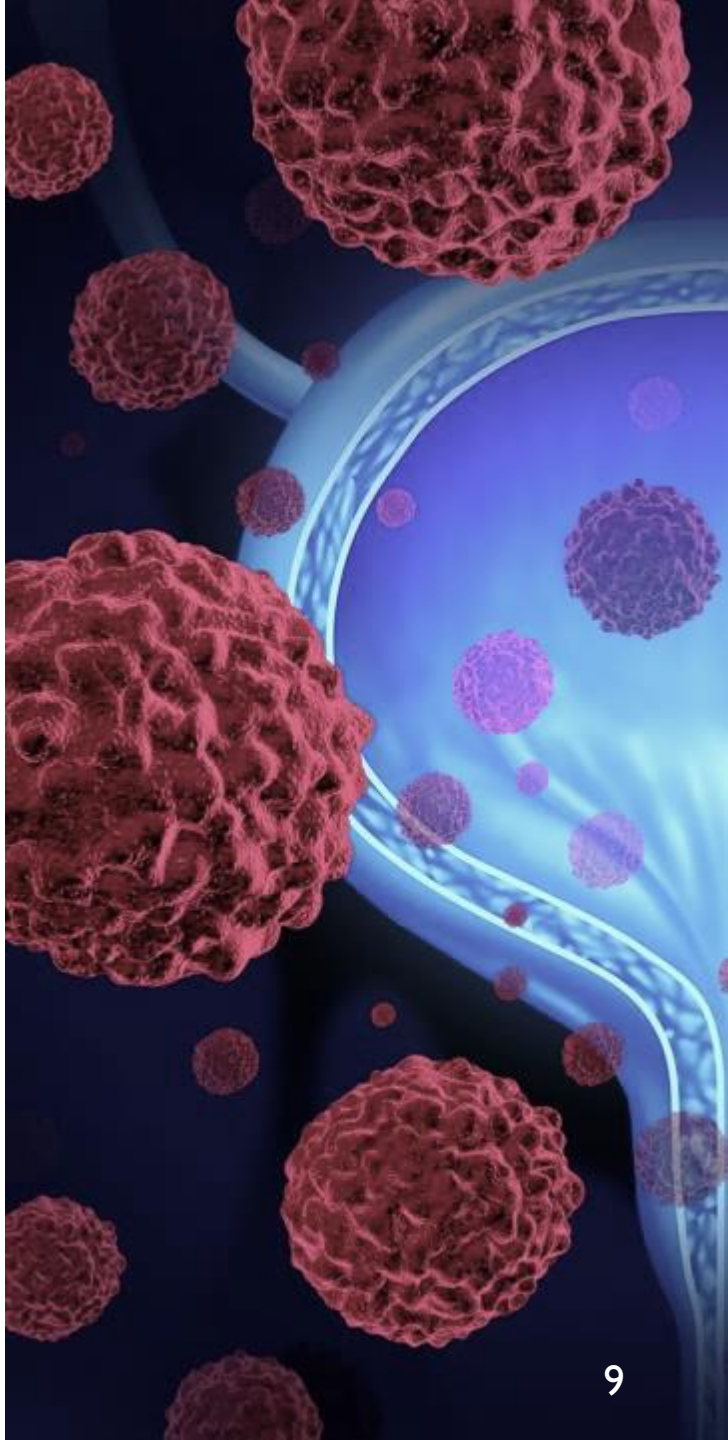
[1]Aldousari, S. Can Urol Assoc J. 2010 Feb. [2]Steinberg, P. Expert Rev Anticancer Ther. 2012. [3]Falchook, A. *Bladder Cancer: Mortality, Morbidity, and QoL After Treatment* 2014. [4]Valstar® (valrubicin) Sterile Solution for Intravesical Instillation package insert

FDA Recognizes Need for New Treatments for Patients with BCG-unresponsive NMIBC

"In the absence of pharmacologic intervention or cystectomy, BCG-unresponsive CIS, with or without resected disease, will persist and progress."

"In BCG-unresponsive NMIBC, a single-arm clinical trial with complete response rate and duration of response as the primary endpoint can provide primary evidence of effectiveness to support a marketing application."



BCG-Unresponsive Nonmuscle Invasive Bladder Cancer: Developing Drugs and Biologics for Treatment Guidance for Industry, February 2018

VISTA TRIAL: Phase 3 Registration Study of Vicinium for BCG-unresponsive NMIBC

- Single-arm, open-label, multi-center registration study in 3 cohorts
- Dosing: 30mg Vicinium intravesical instillation in 50 ml buffered saline held for 2 hours
  - Induction: biweekly for 6 weeks → weekly for 6 weeks
  - Once CR, proceed to maintenance every other week for 2 years
- Primary endpoint: Complete response rate and duration of response in Cohort 1
  - CR= negative central urine cytology, pathology and local cystoscopy
- Key Secondary Endpoints: event-free survival (EFS) in all patients, time to disease recurrence, time to cystectomy, progression-free survival, overall survival, safety and tolerability

COHORT 1:
CIS with or without papillary tumors that recurred within 6 months of BCG

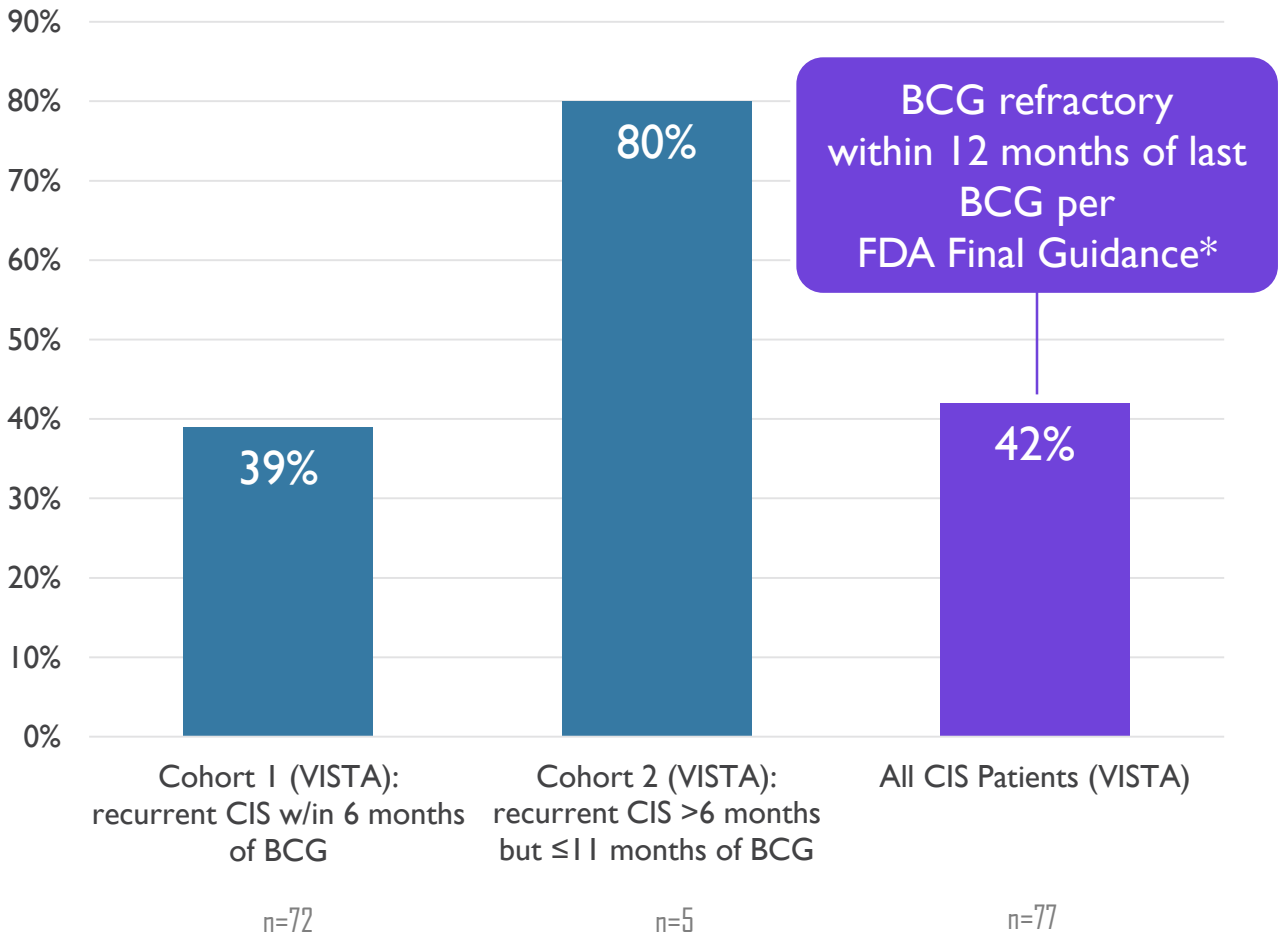
COHORT 2:
CIS with or without papillary tumors that recurred >6 months but ≤11 months of BCG

COHORT 3:
Papillary tumors only that recurred within 6 months of BCG

BCG-unresponsive: completed 2+ courses (≥ 5 and ≥ 2 treatments resp.) of full dose BCG starting within 13 months of each other

VISTA TRIAL: 42% COMPLETE RESPONSE RATE at 3-months in CIS Patients

3-MONTH COMPLETE RESPONSE RATE WITH VICINIUM



Presented May 21, 2018 in plenary session at AUA Annual Meeting; data as of 20 April 2018
Efficacy assessment based on cystoscopy as well as centrally read cytology and, where suspicious lesions found on cysto, central pathology
* BCG-Unresponsive Nonmuscle Invasive Bladder Cancer: Developing Drugs and Biologics for Treatment Guidance for Industry, February 2018

CIS PATIENT JOURNEY TO COMPLETE RESPONSE

76 YEAR OLD FEMALE

CIS diagnosed March 2016

Post TURBT treated BCG per AUA guidelines
(induction course of 6 doses over 6 weeks followed by maintenance course of 3 doses over 3 weeks)

CIS remained confirmed by local and central pathology September 2016

Enrolled into VISTA Trial cohort 1 October 2016; treated with Vicinium

CONFIRMED COMPLETE RESPONSE OBSERVED JANUARY 2017

Patient remains on treatment with complete response at last observation out to **19 MONTHS**

Presented May 21, 2018 in plenary session at AUA Annual Meeting; data as of 20 April 2018

VISTA TRIAL: Encouraging Clinical Activity in Patients with Papillary Tumors

- Patients deemed to have no visible evidence of disease when starting Vicinium treatment
- Disease recurrence remains appropriate response criteria
- Time to disease recurrence remains standard clinical endpoint

68%

RECURRENCE-FREE RATE AT 3-MONTHS WITH VICNIUM

(n=34)

Presented May 21, 2018 in plenary session at AUA Annual Meeting; data as of 20 April 2018

VISTA TRIAL: Vicinium Well-tolerated[1]

Treatment-Emergent Adverse Event[2]	Patients (n=129) with: All TEAEs		Treatment-Related TEAEs	
	All Grades	Grade ≥3	All Grades	Grade ≥3[3]
Any TEAE	104 (81%)	36 (28%)	52 (41%)	5 (4%)
Urinary tract infection	37 (29%)	5 (4%)	13 (10%)	2 (2%)
Dysuria	25 (19%)	0 (0%)	14 (11%)	0 (0%)
Hematuria	21 (16%)	2 (2%)	11 (9%)	0 (0%)
Pollakiuria (frequency of urination)	16 (12%)	0 (0%)	12 (9%)	0 (0%)
Diarrhea	13 (10%)	0 (0%)	2 (2%)	0 (0%)
Fatigue	13 (10%)	0 (0%)	8 (6%)	0 (0%)
Micturition urgency	11 (9%)	0 (0%)	8 (6%)	0 (0%)
Nausea	10 (8%)	1 (1%)	3 (2%)	0 (0%)
Lipase increased (all asymptomatic)	10 (8%)	4 (3%)	2 (2%)	1 (<1%)

Patients (n=129)	Treatment-Emergent SAEs[4]	Treatment-Related SAEs
Any Serious AE	17 (13%)	4 (3%)
Acute kidney injury or renal failure	4	3
Hematuria	3	0
Cholestatic hepatitis	0	1

[1] <1% (n=4) treatment discontinuations due to AEs or progression of bladder cancer
[2] Includes named TEAE and Lab Investigations occurring in more than 10 (8%) subjects regardless of treatment relationship
[3] No grade 5 treatment-related adverse events observed
[4] All SAEs that occurred in more than 1 patient

Presented May 21, 2018 in plenary session at AUA Annual Meeting; data as of 20 April 2018

Expanding Vicinium Benefit by Combining with Immuno-oncology Agents

- Anti-tumor T-cell responses critical to success of checkpoint inhibitors

- Preclinical and clinical data suggest Vicinium promotes host anti-tumor immune responses via immunogenic cell death[1]
  - Promotes pro-inflammatory environment; drives anti-tumor T-cell responses by releasing tumor neoantigens into environment
  - Cell death signals recognized by APCs
  - Hallmark presence of Damage Associated Molecular Patterns (DAMPs)

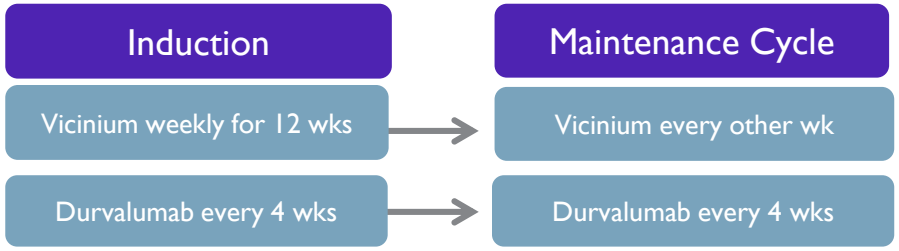
INDUCTION OF IMMUNOGENIC CELL DEATH CAN TURN "COLD" TUMORS "HOT"

- Vicinium treatment of tumor cells *in vitro* results in increase in DAMPs[2] supporting immunogenic cell death
  - Potential to drive host anti-tumor immune responses that synergize with checkpoint inhibitors and I-O agents

[1] Reviewed in Vandenabaele, p et al, Adv. Exp Medical Biology 930:133-49 2016
[2] Presented at AACR, 2017

Phase 1 Checkpoint Inhibitor Combination in NMIBC: Enrollment Initiated

- NCI CRADAs with AstraZeneca: Vicinium + durvalumab (PD-L1 checkpoint inhibitor)
- Provide clinical validation of Vicinium's ability to induce anti-tumor immune responses necessary for effective use of checkpoint inhibitors
- Assessment of critical biomarkers that could support broader combination studies
- Key endpoints include safety, tolerability, preliminary combination anti-tumor activity



Evaluate every three months (Cysto, Cytol, Biopsy)
If CR repeat maintenance cycle up to 7 cycles
(2 years including induction phase)

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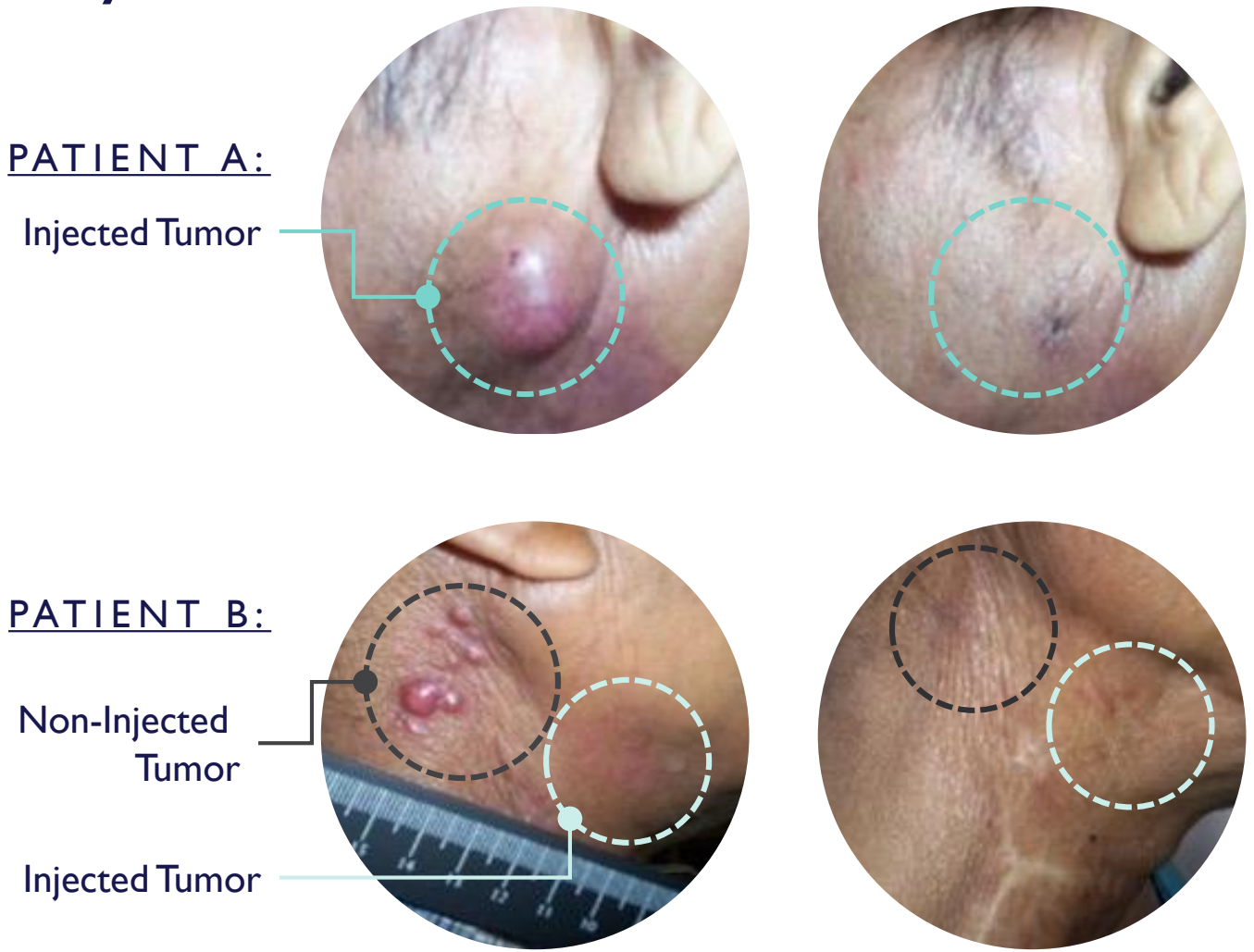
VICINIUM Monotherapy Demonstrates Opportunity in Late-stage SCCHN

- Targeted tumor cell cytotoxicity may lead to cross-priming and immune therapy (T-cell-mediated killing) of non-targeted tumors

- Phase 2 U.S. trial completed
  - Well-tolerated; pain at injection site reported as most common AE
  - Reduction in bi-directional size of principle targeted tumor observed in 71% (10/14) of evaluable patients

Responses Observed in Both Injected & Non-Injected Tumors



Financially Strong: Capital Well Past 12-Month VISTA Trial Results

$19.7 M
in cash and cash equivalents
as of 3/31/18

$4.2 M
in cash proceeds from 5.2M shares
issued pursuant to warrant exercises
between 4/1/18 - 5/10/18*

$40 M capital raised in follow-on offering 5/30/18

*As disclosed in the Company's 10-Q filed on May 15, 2018
~76.5 million shares outstanding as of June 4, 2018

- Positive Vicinium preliminary data from VISTA Trial in BCG-unresponsive high-grade NMIBC
- FDA engagement and commercial readiness planning underway; BLA preparations to begin
- VISTA Trial 12-month data expected mid-2019
- Enrollment initiated in NMIBC combination trial with PD-L1 by NCI
- Study planned for checkpoint inhibitor combination in SCCHN
- Exploring addition Vicinium indications
- Pipeline of next-generation fusion proteins