FY 2021 Financial Results & Business Highlights

March 28, 2022

Forward-Looking Statements

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Advancing a Potential Best-/First-In-Class Antibody for Early Alzheimer's disease (Early AD)

Alzheimer's Represents an Enormous Market Driven by High Unmet Need and Recent Scientific and Regulatory Momentum

Scientific Consensus Supports **Amyloid-Beta Oligomers (AβOs)** as the Most toxic form of Aβ and a Novel Target for Effective AD Treatment

ACU193: First, Clinical-Stage Monoclonal Antibody (mAb) to Selectively Target AβOs and has Promising Pre-Clinical Evidence Supporting its Differentiation

Experienced Leadership Comprised of Industry Leaders with AD Drug Discovery, Development, and Regulatory Expertise from Eli Lilly & Co.

Strong Balance Sheet:
2021 Series B Tranche $30M

2021 IPO
~$184M Gross

~$**225M in Cash and Marketable Securities at 12/31/21**

Phase 1 Clinical Trial in Early AD Patients Ongoing Proof of Mechanism / Target Engagement / Safety Data **Topline Results Expected 1H 2023**

We believe Acumen has the organizational expertise and fiscal resources to advance ACU193 through multiple anticipated clinical development milestones during 2022 through 2025

Strong Momentum Heading into 2022

- **2021: Transformational year for Acumen**
  - ✓ Series B Tranche gross proceeds of $30M and IPO with gross proceeds of $184M
  - ✓ INTERCEPT-AD trial launched; first patient dosed in October
  - ✓ Trial design and program presented at CTAD in November
  - ✓ December 31, 2021: Cash, cash equivalents and marketable securities of ~$225M - representing expected cash runway through 2025
- **Expanded team to enhance depth and breadth of expertise of the Company**
  - ✓ Appointed three new senior team members in 4Q 2021
    - Head of Clinical Operations
    - Head of HR
    - Corporate Controller and Treasurer
  - ✓ Kim Drapkin, CPA, appointed to the Board and to serve as Chair of Audit Committee effective April 1, 2022

INTERCEPT-AD Trial Update

- **INTERCEPT-AD: Phase 1 clinical trial of ACU193 in patients with early AD (RCT)**

  → Topline results under full database lock expected in 1H 2023

    - Safety / ARIA-E
    - PK
    - Target engagement

  → Trial timeline also adjusted for COVID-related impact

  → Trial enrollment on-going at 8 active sites, 6 additional sites selected for potential activation

  → Strong cash position has provided us the ability to expand study footprint to support recruitment and capture complete follow-up period (Cohort 7 Day 168) prior to read out

  → Complete trial results anticipated for presentation at major Alzheimer's meeting mid-2023

- **Phase 2/3 'Ready' Activities**

  ✓ Chronic GLP toxicity testing initiated

  ✓ New drug substance production process and drug product formulation being finalized

  ✓ Developing Phase 2/3 study design and planning for FDA End of Phase 2 meeting

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ACU193's High Selectivity for toxic AβOs, Combined with its Expected Lack of ARIA-related Safety Concerns, Is Anticipated to Provide Superior Efficacy Compared to Peers

		TARGET SELECTIVITY+				SAFETY PROFILE
Company	Asset	Amyloid plaque	Aβ fibrils	Aβ monomers	Aβ oligomers	Lack of ARIA
ACUMEN	**ACU193**	✗	untested	✗	✓	✓
Biogen	Aduhelm™	✓	✓	✗	✓	✗
Eisai	lecanemab	✓	✓	✗	✓	✗
Roche	gantenerumab	✓	✓	✗	✓	✗
Lilly	donanemab	✓	untested	✗	✗	✗
Lilly	solanezumab*	✗	✗	✓	✗	✓
Genentech	crenezumab*	✓	✓	✓	✓	✓
Pfizer / janssen	bapineuzumab*	✓	✓	✓	✓	✗

*Phase 3 discontinued for primary AD indication

+ There have been no head-to-head trials between any of the product candidates listed above. Study designs and protocols for each product candidate were different, and results may not be comparable between product candidates.

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(ACU-001) INTERCEPT-AD trial: Phase 1 Overview

TRIAL DESIGN:

Randomized Placebo Controlled Phase 1

- Part A : Single-Ascending Doses
- Part B : Multiple-Ascending Doses

ENROLLMENT CRITERIA:

Early AD

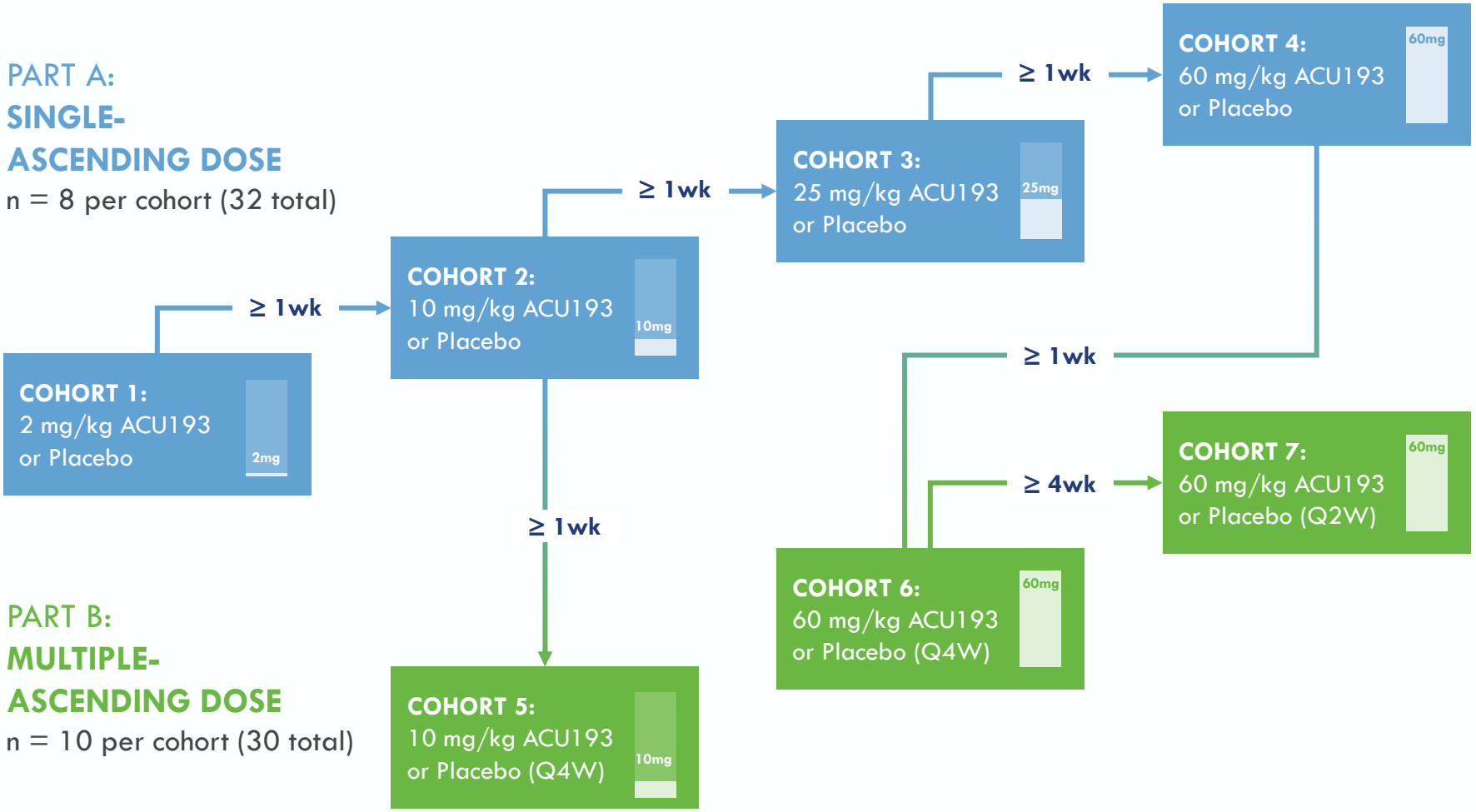
- Mild Cognitive Impairment and Mild Dementia due to AD (amyloid positive by PET)

TRIAL OBJECTIVES:

Proof of Mechanism (PoM)

- Safety and tolerability
- Pharmacokinetics
- Target Engagement
- Biomarkers; cognition

INTERCEPT-AD a Randomized Placebo Controlled Phase 1 in Early AD patients



Phase 1 Objectives: Proof of Mechanism

1. SAFETY AND TOLERABILITY
- Assessment of ARIA-E
- Absence of problematic immunogenicity

2. PHARMACOKINETICS
- Peripheral and Central

3. EVIDENCE OF TARGET ENGAGEMENT
- CSF level of ACU193:AβO complexes (bound)

4. FLUID BIOMARKER EFFECTS
- Phospho-tau, Neurofilament light, et. al.

5. CLINICAL MEASURES
- Assessment of clinical cognitive measures, computerized tests (Cogstate Ltd.)

6. MRI EFFECTS
- Potential improvements in cerebral blood flow shown with MRI ASL pulse sequence

PROOF OF MECHANISM

Requirements for Phase 2/3

- ✓ Acceptable safety and tolerability
- ✓ Show ACU193 gets into central compartment
- ✓ Target engagement
- ✓ Other indicators of target mechanism of action

Topline Results anticipated in 1H 2023: primary outcomes Safety / ARIA-E, PK and Target Engagement. Detailed study results anticipated to be presented at major Alzheimer's meeting

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Acumen is Well Capitalized, with Expected Cash Runway through 2025 to Achieve Multiple Anticipated Clinical Milestones

MILESTONES	STATUS/EXPECTED TIMING
Initiated Ph1 clinical trial INTERCEPT-AD	✓
INTERCEPT-AD trial updates	2022
Proof of Mechanism Topline results	1H 2023

~$225M

Cash and marketable securities as of December 31, 2021

Key FY 2021 Financial Results:

- R&D expenses of $12.3M
- G&A expenses of $7.3M
- Loss from operations of $19.6M

FY 2021 Net Loss of $101M includes non-cash expense of more than $81 million

We believe Acumen has the organizational expertise and cash and marketable securities on hand to advance ACU193 through multiple anticipated clinical milestones 2022 through 2025

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Thank you - Q&A