UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): February 1, 2023

Acumen Pharmaceuticals, Inc.
(Exact name of Registrant as Specified in Its Charter)

Delaware	**001-40551**	**36-4108129**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

427 Park St., Charlottesville, Virginia		**22902**
(Address of Principal Executive Offices)		**(Zip Code)**

(434) 297-1000
(Registrant's Telephone Number, Including Area Code)

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instructions A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, $0.0001 par value	ABOS	The Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01 Regulation FD Disclosure.

On February 1, 2023, the Acumen Pharmaceuticals, Inc. (the "Company") posted an updated corporate presentation to its website at https://investors.acumenpharm.com/news-events/presentations, which the Company may use from time to time in communications or conferences. A copy of the corporate presentation is attached as Exhibit 99.1 to this Report.

The information in this Item 7.01 of this Report (including Exhibit 99.1), is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that Section, nor shall it be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act, except as expressly set forth by specific reference in such filing. The Company's submission of this Report shall not be deemed an admission as to the materiality of any information required to be disclosed solely to satisfy the requirements of Regulation FD.

Item 8.01 Other Events.

The Company's updated corporate presentation provides updates with respect to INTERCEPT-AD, the Company's Phase 1 clinical trial of ACU193 in patients with early Alzheimer's disease. The corporate presentation notes that the Company expects to complete enrollment in INTERCEPT-AD in the first quarter of 2023 and anticipates reporting topline data from this trial in the third quarter of 2023. The corporate presentation also notes that as of January 31, 2023, a total of 52 subjects have been randomized and dosed in Cohorts 1 through 6 of the clinical trial. Cohort 6 is fully enrolled, with planned doses of 60 mg/kg of ACU193 every four weeks.

In addition, the updated corporate presentation notes that on January 30, 2023, the Company submitted a protocol amendment to the U.S. Food and Drug Administration with respect to Cohort 7 of the clinical trial to reduce the dosage plan to 25 mg/kg every two weeks (updated from 60 mg/kg every two weeks). The proposed change was based in part on a blinded review of preliminary pharmacokinetic data, inclusive of plasma and cerebrospinal fluid levels, which indicated a dose of 60 mg/kg every two weeks should not be needed to attain central target engagement, and preliminary safety data, inclusive of two asymptomatic cases of ARIA-E (one in Cohort 4 after a single 60 mg/kg dose and one in Cohort 5 after a third 10 mg/kg dose).

Cautionary Note on Forward-Looking Statements

This Current Report contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Any statement describing the Company's goals, expectations, financial or other projections, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement. Words such as "expects," "anticipates," "plans," "potential" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements include statements concerning the Company's plans with respect to completion of enrollment in its INTERCEPT-AD Phase 1 clinical trial and its expectations with regards to the timing of reporting topline data, the Company's proposed protocol amendment, the Company's expectations with respect to the therapeutic dose range of the Company's product candidate, ACU193, and the therapeutic potential of ACU193, including its safety profile, potential for improved safety (including expected rate of ARIA) and efficacy, as well as the expectations concerning the INTERCEPT-AD trial. These statements are based upon the current beliefs and expectations of the Company's management, and are subject to certain factors, risks and uncertainties, particularly those inherent in the process of discovering, developing and commercializing safe and effective human therapeutics. Such risks may be amplified by the impacts of the COVID-19 pandemic. These and other risks concerning Acumen's programs are described in additional detail in Acumen's filings with the Securities and Exchange Commission, including in Acumen's Form 10-K for the year ended December 31, 2021, Acumen's Form 10-Q for the quarter ended September 30, 2022, and future filings and reports by Acumen. Copies of these and other documents are available from Acumen. Additional information will be made available in other filings that Acumen makes from time to time with the SEC. These forward-looking statements speak only as of the date hereof, and Acumen expressly disclaims any obligation to update or revise any forward-looking statement, except as otherwise required by law, whether, as a result of new information, future events or otherwise. In this presentation, references to cash also include cash equivalents.

Item 9.01 Financial Statements and Exhibits.

(d). Exhibits

Exhibit No.	Description
99.1	Corporate Presentation, dated February 2023.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Company has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Acumen Pharmaceuticals, Inc.

Dated: February 1, 2023

By: /s/ Matthew Zuga
Matthew Zuga
Chief Financial Officer and Chief Business Officer

Corporate Presentation

February 2023

Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Any statement describing Acumen's goals, expectations, financial or other projections, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement. Words such as "believes," "expects," "anticipates," "could," "would," "seeks," "aims," "plans," "potential," "will" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements include statements concerning Acumen's business, Acumen's ability to achieve its strategic and financial goals, including its projected use of cash, cash equivalents and marketable securities and the sufficiency of its cash resources, and the therapeutic potential of Acumen's product candidate, ACU193, including its safety profile, potential for improved safety (including expected rates of ARIA) and efficacy as compared to other monoclonal antibodies in development, as well as the expectations concerning the INTERCEPT-AD trial and Acumen's planned Phase 2/3 clinical trial, including the expected timing of initiation, enrollment and reporting data, and risks and uncertainties relating to the progression and duration of the COVID-19 pandemic and responsive measures thereto and related effects on Acumen. These statements are based upon the current beliefs and expectations of Acumen management, and are subject to certain factors, risks and uncertainties, particularly those inherent in the process of discovering, developing and commercializing safe and effective human therapeutics. Such risks may be amplified by the impacts of the COVID-19 pandemic. These and other risks concerning Acumen's programs are described in additional detail in Acumen's filings with the Securities and Exchange Commission ("SEC"), including in Acumen's Form 10-K for the year ended December 31, 2021, Acumen's Form 10-Q for the quarter ended September 30, 2022, and future filings and reports by Acumen. Copies of these and other documents are available from Acumen. Additional information will be made available in other filings that Acumen makes from time to time with the SEC. These forward-looking statements speak only as of the date hereof, and Acumen expressly disclaims any obligation to update or revise any forward-looking statement, except as otherwise required by law, whether, as a result of new information, future events or otherwise. In this presentation, references to cash also include cash equivalents.

Advancing a Potential Best-/First-In-Class Antibody Product for Early Alzheimer's disease (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** with Promising Pre-Clinical Evidence Supporting its Differentiation

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

Strong Balance Sheet: ~$200M in cash at 30-Sep-22

July 2021 IPO ~$184M Gross

RA Capital
Deep Track
Sands Capital
PBM Capital

Phase 1 Clinical Trial in Early AD Patients Ongoing

Proof of Mechanism
Target Engagement
Safety Data

Topline Results Expected Q3 2023

We believe that Acumen has the organizational expertise and fiscal resources to advance ACU193 through 2025 and multiple clinical milestones.

Acumen Business Strategy: 2023 - 2025

→ Rapidly advance ACU193 through clinical development in patients with early AD;

→ Evaluate combination approaches to complement our core ACU193 monotherapy strategy;

→ Selectively explore potential of ACU193 for other diseases;

→ Expand our product portfolio by in-licensing and/or developing additional candidates and/or alternative formulations for, or derivatives of, ACU193; and

→ Optimize value of ACU193 and future drug candidates in major markets.

INTERCEPT-AD Trial Update – February 2023

- **INTERCEPT-AD: Phase 1 clinical trial of ACU193 in patients with early Alzheimer's disease (AD) (RCT)**
  - → Topline results, safety and clinical proof-of-mechanism following full database lock expected in Q3 2023
  - → Enrollment expected to be complete in Q1 2023
    - As of Jan. 31, a total of 52 subjects have been randomized and dosed in Cohorts 1 through 6
  - → Cohort 7 dose level amended to 25 mg/kg every two weeks (Q2W) from 60 mg/kg Q2W prior to start
    - Preliminary, blinded plasma pharmacokinetic (PK) data demonstrated higher-than-expected ACU193 exposures at all dose levels
    - Preliminary Cohort 3 (SAD 25 mg/kg) dose results in Day 21 cerebrospinal fluid (CSF) ACU193 levels in excess of reported soluble amyloid beta oligomer (AβO) levels
    - Two blinded observations of asymptomatic ARIA-E factored into decision to amend Cohort 7 dose; one in Cohort 4 (after single 60 mg/kg dose) and one in Cohort 5 (after third 10 mg/kg dose)
    - Cohort 6 is fully enrolled with planned dose (60 mg/kg every four weeks (Q4W))

Safety profile to date remains supportive of targeting soluble amyloid beta oligomers and, combined with the selectivity of ACU193, is expected to offer a favorable benefit-to-risk ratio for patients with early AD.

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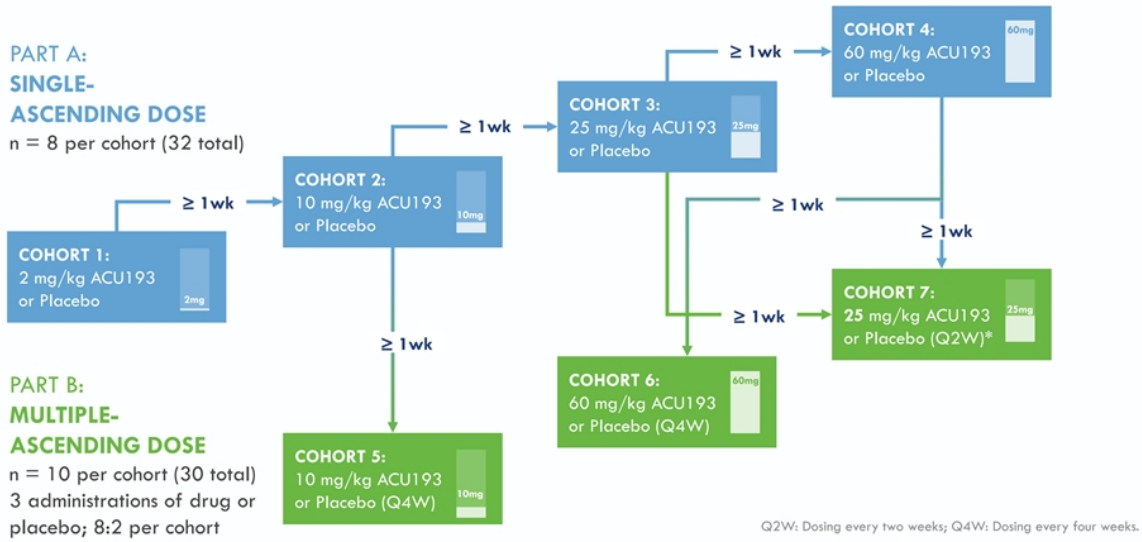
INTERCEPT-AD a Randomized Placebo Controlled Phase 1 in Early AD patients



Q2W: Dosing every two weeks; Q4W: Dosing every four weeks.

*On January 30, 2023, Acumen submitted a protocol amendment to FDA to reduce the dose in Cohort 7 to 25 mg/kg Q2W from 60 mg/kg Q2W. This was based on a blinded review of preliminary pharmacokinetic data, inclusive of plasma and CSF levels, that indicate a dose of 60 mg/kg Q2W should not be needed to attain central target engagement, and preliminary safety data, inclusive of two asymptomatic cases of ARIA-E. While ACU193 is early in clinical development, the incidence of ARIA-E to date is consistent with our previous expectations regarding the safety profile of ACU193. The dose of ACU193 in Cohort 6 (60 mg/kg Q4W) has been maintained as planned.

AD, Amyloid & Abeta Oligomers

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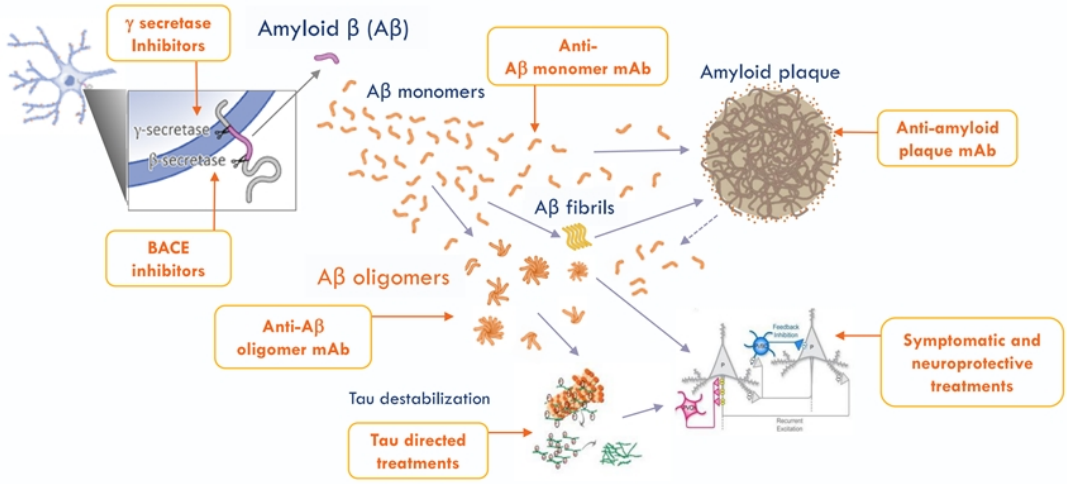
Alzheimer's Pathophysiology

Build-up of amyloid-beta (Aβ) is believed to lead to neurodegeneration and dementia

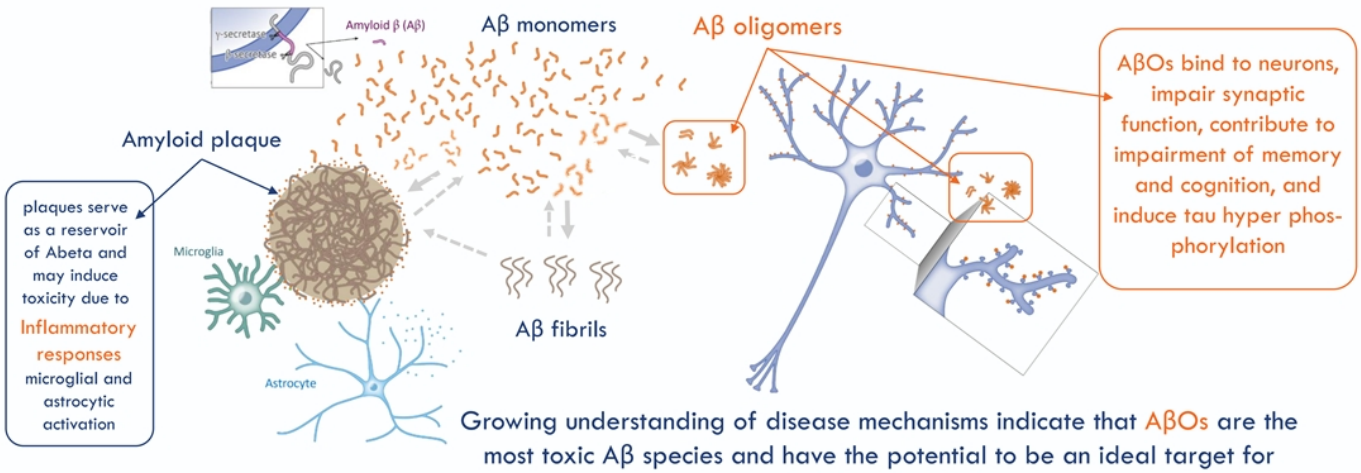
Previous and current anti-amyloid and related drug targets have attempted to intervene



Data indicate that soluble amyloid β oligomers (AβOs) are the most toxic species and should be preferentially targeted for removal.

Scientific Evidence Supports AβO Hypothesis

Predominant forms of Aβ in AD: Aβ monomers (non-toxic), AβOs, Aβ fibrils, and amyloid plaques



Growing understanding of disease mechanisms indicate that AβOs are the most toxic Aβ species and have the potential to be an ideal target for effective AD therapy

Sources: Adopted From: Selkoe, Hardy EMBO Molecular Medicine, 2016
Cline, Journal of Alzheimer's Disease, 2018

The two approved antibody products for AD and several late-stage products target amyloid plaques with only limited effects on AβOs. Acumen's drug candidate ACU193 targets AβOs.

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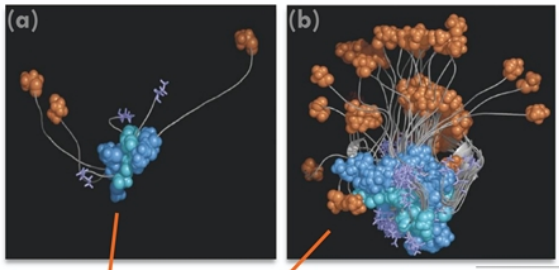
What is an Aβ Oligomer? AβOs May Consist of 2 to >200 Aβ Peptides

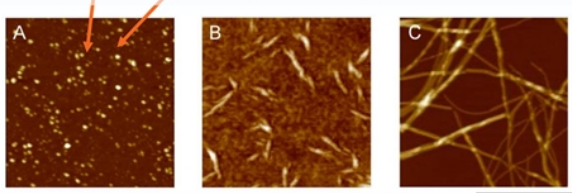
Figure 1. AβOs composed of 3 (a) and 18 (b) Aβ peptides are depicted below.



Source: Kelley et al. J Chem Physics 2008.

Quaternary structures of Aβ oligomers, protofibrils, and fibrils

Figure 2. Atomic force microscopy images of representative steps of amyloid aggregation: (A) oligomers; (B) protofibrils; (C) mature fibrils. Scan size 1.0 μm. Z range (A) 8.0 nm; (B) 15 nm; (C) 20 nm.



Source: Relini et al. Biomolecules 2014.

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Positive Signals and Proof of Concept From Recent Phase 2-3 Anti-Amyloid mAb AD Studies

Percent Slowing of Cognitive/Functional Decline*

Measured Outcome**	solanezumab EXPEDITION 3 (Phase 3)	aducanumab EMERGE (Phase 3)	aducanumab ENGAGE (Phase 3)	donanemab (Phase 2)	lecanemab BAN2401 (Phase 2)	lecanemab Clarity-AD (Phase 3)+
ADAS-cog	-11%	-27%	-12%	-39%	-47%	-26%
ADCS-ADL	-15%	-40%	-18%	-23%	N.A.	-37%
CDR-SB	-15%	-23%	2%	-23%	-26%	-27%
MMSE	-13%	-15%	3%	-21%	N.A.	N.A.
iADRS	-11%	N.A.	N.A.	-32%	N.A.	N.A.

* Percent Slowing = P[1- [(endpoint score-baseline score)active/(endpoint score-baseline score)placebo]]*100%*(-1)

** ADAS-cog: Alzheimer's Disease Assessment Scale – Cognitive Subscale
ADCS-ADL: Alzheimer's Disease Cooperative Study – Activities of Daily Living
CDR-SB: Clinical Dementia Rating – Sum of Boxes
MMSE: Mini-Mental State Examination
iADRS: Integrated Alzheimer's Disease Rating Scale

Note: ENGAGE Post-Protocol Version 4 – at least 14 doses of 10 mg/kg, High Dose cohort achieved 27% improvement on CDR-SB compared to placebo

"We're looking for a biological foothold against Alzheimer's that we can build on. And so, these effects are small, but I think they are meaningful, and I hope they're the beginning of a process that we can add to." - ***Stephen Salloway, MD*** *of Brown University*++

+ Source: Eisai/Biogen press release September 28, 2022.

++Source: Wall Street Journal, Biogen Details Case for Controversial Alzheimer's Drug, published December 5, 2019. See e.g., Plotkin, Neurobiology of Disease, 2020.

There have been no head-to-head clinical 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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Anti-Plaque mAbs Demonstrate Dose-Related ARIAs That Will Likely Limit Their Use

Percent of ARIA Events for Anti-Aβ/plaque mAbs*

	TARGETING AB MONOMERS		TARGETING AMYLOID PLAQUES								TARGETING PROTOFIBRILS			
	solanezumab EXPEDITION 3 (Phase 3)		aducanumab EMERGE (Phase 3)			aducanumab ENGAGE (Phase 3)			donanemab (Phase 2)		lecanemab BAN2401 (Phase 2)		lecanemab BAN2401 (Phase 3)+	
	PC	Treated	PC	Low	High	PC	Low	High	PC	Treated	PC	High	PC	Treated
ARIA-E	0.2%	0.1%	2.2%	26.1%	34.4%	3.0%	25.6%	35.7%	0.8%	27.5%	0.8%	9.9%	1.7%	12.6%
ApoE ε4 carriers			1.9%	29.8%	42.5%	2.4%	28.7%	41.8%	3.6%	44.0%	1.2%	14.6%	2.3%	15.8%
ApoE ε4 non-carriers			2.9%	18.1%	17.9%	4.3%	17.5%	27.7%			0.0%	8.0%	0.3%	5.4%
Any ARIA E or H			10.3%	32.8%	41.2%	9.8%	30.7%	40.3%	8.0%	38.9%		N.A.	9.5%	21.5%

* PC = Placebo, Low = Low Dose; High = High Dose

Shows the absence of ARIA after treatment with antibodies targeting Aβ monomers (solanezumab) in comparison to the increasing presence of ARIA after treatment at increasing dose levels with antibodies targeting amyloid plaques (aducanumab, BAN2401, and donanemab), indicate that ARIA results from the removal of amyloid plaques around blood vessels and likely does not result from treatment with antibodies that target other species of Aβ, i.e. Aβ monomers and AβOs.

ARIA-E represents a dose limiting adverse effect for mAbs with amyloid plaque binding. We believe antibodies that avoid ARIA should be safer and more feasible to administer, possibly at higher doses.

There have been no head-to-head clinical 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.

+ Source: Eisai/Biogen press release September 28, 2022

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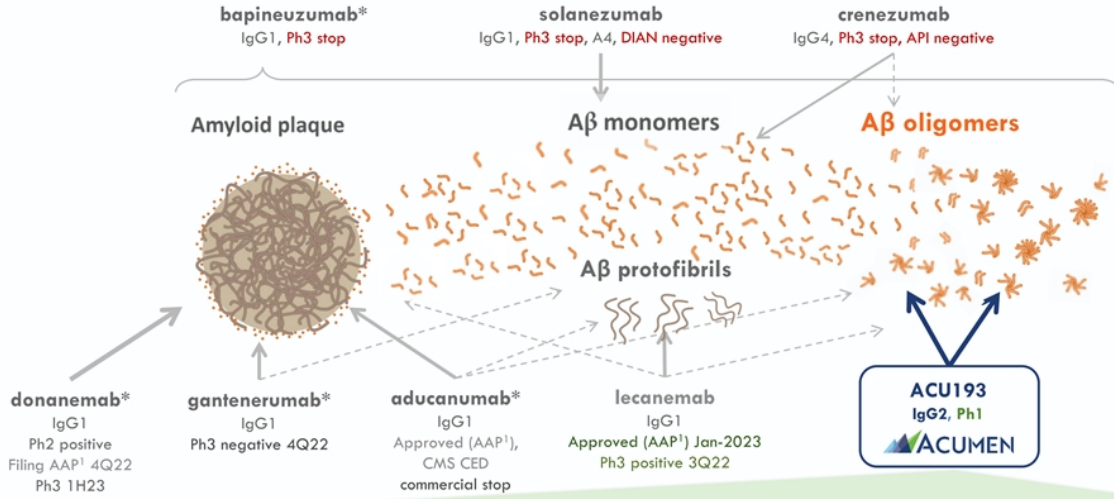
ACU193 Positioning Relative to Late-Stage and Approved Anti-Aβ/Plaque mAbs



ACU193's high selectivity for AβOs combined with an expected low rate of ARIA is anticipated to provide better safety and efficacy compared to anti-plaque mAbs

* IgG1 monoclonal antibodies that bind amyloid plaque are associated with high rates of ARIA-E. See e.g., *Plotkin, Neurobiology of Disease*, 2020.

- There have been no head-to-head clinical 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.

[1] AAP: Accelerated approval

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ACU193's High Selectivity for Toxic AβOs, Combined With its Expected Low Rate of ARIA, is Anticipated to Provide Superior Efficacy Compared to Peers

		TARGET SELECTIVITY+				SAFETY PROFILE
Company	Asset	Amyloid plaque	Aβ fibrils	Aβ monomers	Aβ oligomers	Low rate of ARIA
ACUMEN	ACU193	✗	untested	✗	✓	Expected
Biogen	Aduhelm™	✓	✓	✗	✓	✗
Eisai / Biogen	lecanemab	✓	✓	✗	✓	✗
Roche	gantenerumab	✓	✓	✗	✓	✗
Lilly	donanemab	✓	untested	✗	✗	✗
Lilly	solanezumab*	✗	✗	✓	✗	✓
Roche / 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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ACU193:
Our Differentiated Approach

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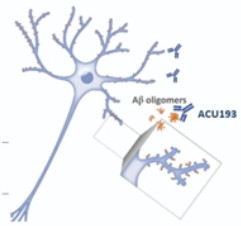
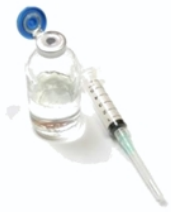
ACU193 Target Product Profile: Best-in-Class, 1st Line, Anti-AβO, Disease-Modifying Immunotherapy for Early AD

DRUG:	ACU193 is a humanized, affinity-matured, mAb with high selectivity for toxic **AβOs vs. Aβ monomers (>500x)** and limited to no binding to amyloid plaques. **ACU193 is an IgG2 subclass** mAb which lacks inflammatory effector functions of other IgG subclasses.
POPULATION:	Early AD - Mild Cognitive Impairment and Mild Dementia due to AD (amyloid positive by PET)
DOSING:	IV infusion every 4 weeks
DURATION:	Chronic therapy for duration of Early AD
VALUE PROPOSITION:	**Selectivity for toxic AβOs is expected to provide superior cognitive efficacy** and **improved safety and tolerability** relative to non-selective anti-Aβ/plaque mAbs, including: • Slowing the decline of memory and cognition in Early AD • Decreasing AβO induced synaptic and neuronal network toxicity • Slowing disease progression and downstream effects on tau, neurodegeneration, and neuro-inflammation • With expected low rate of ARIA • **Potentially effective as stand-alone therapy or in combination with other symptomatic, anti-inflammatory, and/or tau directed therapies**





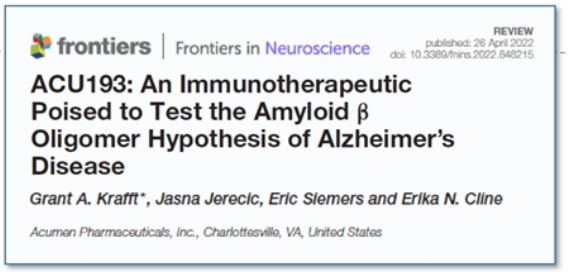
ACU193: Extensive Pre-Clinical Data Package Supporting Development

SELECTIVITY
- Nanomolar affinity for AβOs, >500-fold greater selectivity for AβOs over Aβ monomer, with limited or no discernable binding to vascular amyloid or dense core amyloid plaques
- Binds broad range of endogenous AβOs present in transgenic mice and human AD samples (binds dimers to mid-sized molecular weight AβOs)

PHARMACOLOGY
- Dose-dependent effects in multiple in vitro neuroprotection assays
- Positive memory and behavioral effects in multiple in vivo transgenic mouse models for AD

PK/PD
- Brain penetration and biodistribution demonstrated in multiple species
- Performs like other peripherally administered CNS mAbs

SAFETY
- IgG2 subclass lacks inflammatory effector function signaling (FcγR binding)
- Nonclinical microhemorrhage studies show no increased risk of microhemorrhage
- GLP studies demonstrated acceptable safety margin for clinical dosing plans


frontiers | Frontiers in Neuroscience

REVIEW
published: 26 April 2022
doi: 10.3389/fnins.2022.848215

ACU193: An Immunotherapeutic Poised to Test the Amyloid β Oligomer Hypothesis of Alzheimer's Disease

Grant A. Krafft, Jasna Jerecic, Eric Siemers and Erika N. Cline*

Acumen Pharmaceuticals, Inc., Charlottesville, VA, United States

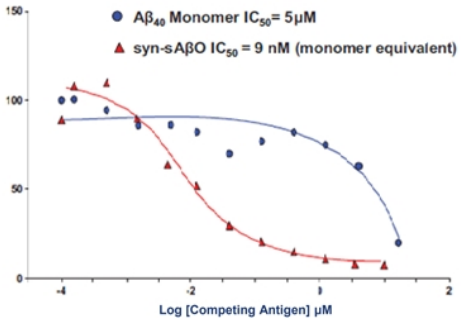
ACU193 is a promising immunotherapy for early AD expected to provide meaningful cognitive and functional benefits, slow disease progression, and offer an attractive safety profile.

ACUMEN

ACU193 is the First mAb Developed to Selectively Target AβOs

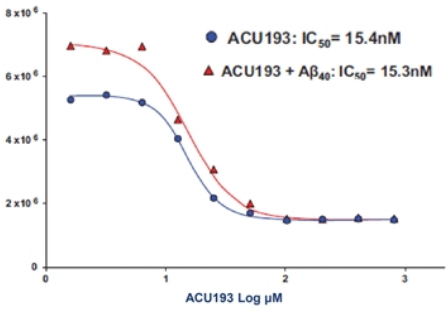
Highly selective for Aβ oligomers versus Aβ monomers

ACU193 Selectivity



Binding of ACU193 to AβOs >500x binding to Aβ monomer

ACU193 Selectivity in presence of 5μM monomeric Aβ



Even in the presence of a large excess of Aβ monomer, binding of ACU193 to AβOs is unchanged

ACU193 selectivity for binding to AβOs is preserved even in the presence of a large excess of Aβ monomers – such as what is present in the brain, thus limiting 'target distraction.'

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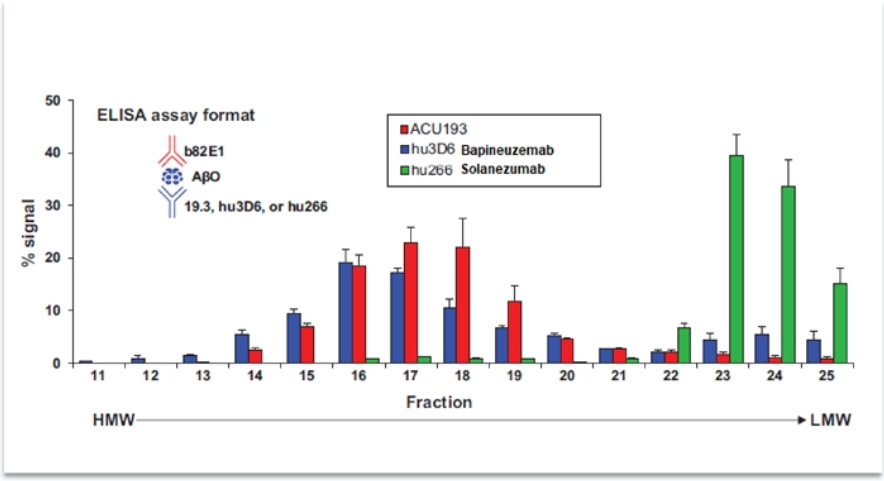
ACU193 Has a Greater Preference for AβOs Than Other mAbs

Comparison of Aβ species-mAb complex signals across SEC fractions



ACU193 binds to a wide range of oligomeric species of Aβ that are differentiated from those bound by hu266 (solanezumab) or hu3D6 (bapineuzumab).

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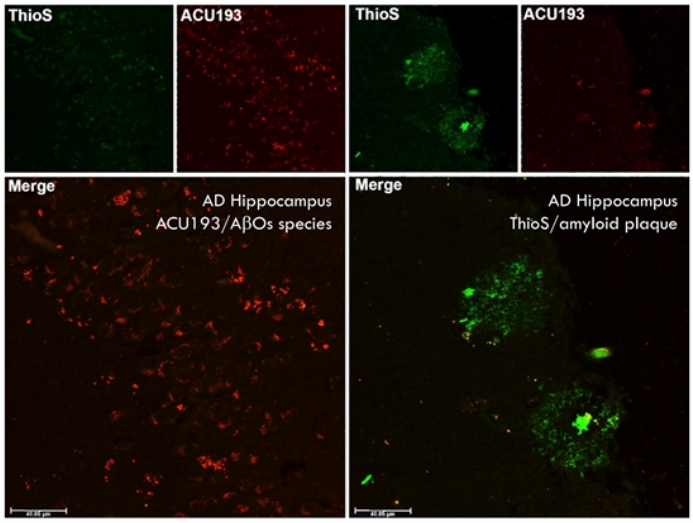
ACU193 is Highly Selective for AβOs Versus Aβ Plaques

ACU193 staining in human AD brain slices ACU193 (red) binds non-Thioflavin S positive Aβ (green)



ACU193 has little or no binding to thioflavin S positive fibrillar Aβ plaque in human AD brain tissue.

Sources: E. Cline et al. CTAD 2019.

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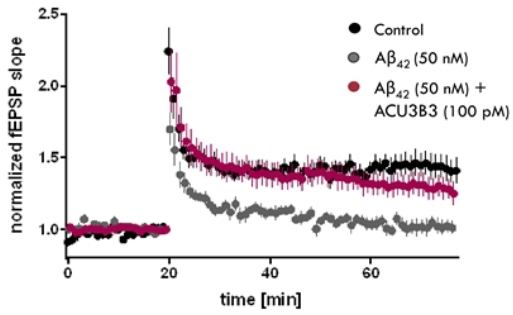
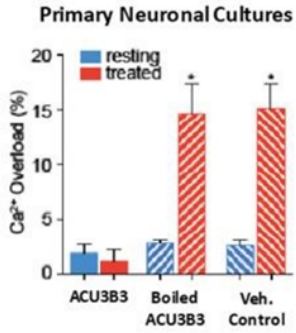
AβOs Bind to Neurons and are Toxic; Mouse Analogue of ACU193 Prevents Toxicity

After binding to neurons, AβOs disrupt Long Term Potentiation (LTP) and cause pathologic increases in intracellular calcium that is destructive to cells.

ACU3B3 prevents AβO inhibition of hippocampal LTP *ex vivo*



ACU3B3 prevents AβO mediated Ca2+ elevation in cell cultures

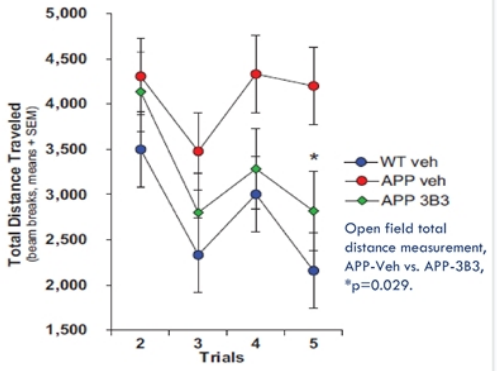


Note: (1) ACU3B3 is the mouse monoclonal antibody precursor to and equivalent of humanized ACU193

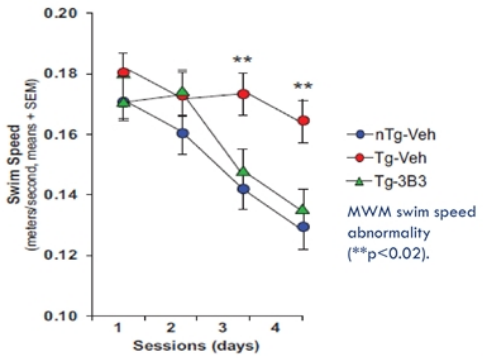
ACU3B3 prevents changes in aberrant neuronal activity thought to underlie memory loss in AD and prevents AβO mediated disruption of calcium homeostasis in neuronal cultures.

Treatment of a Transgenic Mouse Model of AD Results in Behavioral Improvements

Murine parent version of ACU193 (ACU3B3) was used to treat younger mice with depositing plaque or older mice with abundant plaque



Deficits in younger (5-7 months) transgenic mice are markedly reduced with treatment



Deficits in older (9-10 months) transgenic mice are markedly reduced with treatment

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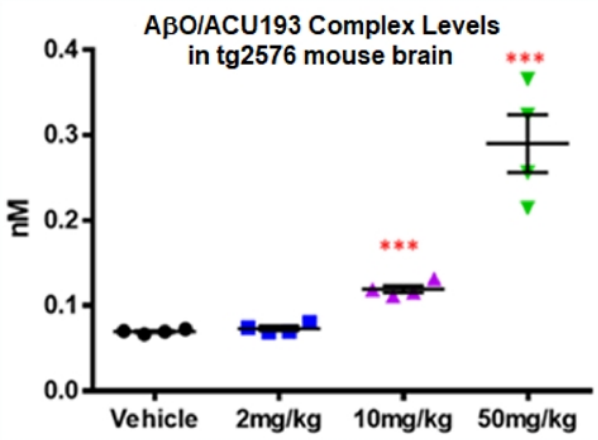
ACU193 Enters the CNS and Binds to AβOs in Transgenic Mice in Dose Dependent Manner



ACU193 engages target AβOs in transgenic mouse brain (tg2576) in dose dependent manner. Ability to administer higher doses in patient clinical trials may provide increased target coverage.

Clinical Development Plans

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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 (exploratory)

For more information on the INTERCEPT-AD trial, see https://clinicaltrials.gov/ct2/show/NCT04931459.

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Phase 1 Objectives: Proof of Mechanism – Ability to Move to Phase 2/3

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 (exploratory)
- Assessment of clinical cognitive measures, computerized tests (Cogstate Ltd.)

6. MRI EFFECTS (exploratory)
- 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 across the blood brain barrier and into central compartment
- ✓ Target engagement

Topline results anticipated in Q3 2023: primary outcomes safety/ARIA-E, PK and target engagement. Detailed study results anticipated to be presented at an Alzheimer's medical meeting.

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Cogstate

Cogstate computerized test battery (exploratory)

Test	Domains tested	Time (minutes)
International shopping list test (immediate)	Immediate recall	5
Cogstate brief battery	Attention, working memory, learning	15
International shopping list test (delayed)	Delayed recall	1
Groton maze learning test	Executive function	7
International digit-symbol substitution test	Processing speed	3
		Total = 31

Frequency of administration and sensitivity of battery offers improved possibility to observe effects.

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Arterial Spin Labelling (ASL) as an MRI Measure of Cerebral Blood Flow

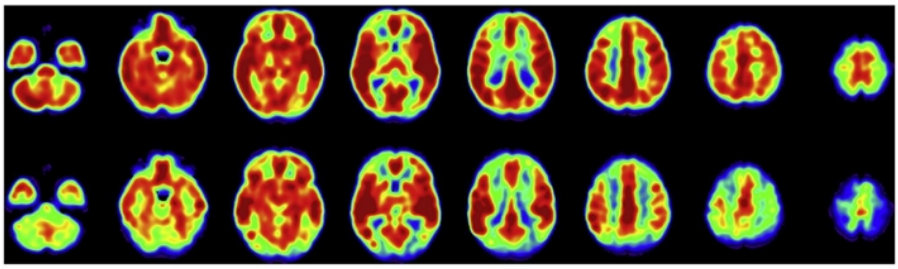

Fig. 1. Processed CBF images measured with ASL of a young and an old healthy control from our database. The top row images are from a 32 year-old woman, and the bottom row images are from an 80 year-old man. The reduction of CBF can be readily observed in widespread brain areas of the older subject compared with the younger subject.

- Mild cognitive impairment patients show hypoperfusion in parietal cortex, precuneus, posterior cingulate cortex and medial temporal lobe
- AD patients show global hypoperfusion, but especially cingulate, precuneus, parietal lobes and inferior frontal regions
- Perfusion correlates with several neuropsychological tests
- Hypoperfusion can be improved in middle and posterior cingulate cortex with cholinesterase inhibitors and was associated with improvement in ADAS-cog scores

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ACU193 Development Summary

- ⇒ Differentiated profile: Nonclinical data consistent with toxicity of Aβ oligomers and selective binding of ACU193 to Aβ oligomers
- ⇒ Enrollment in an ongoing Phase 1 study assessing safety, PK, and target engagement is expected to be complete in Q1 2023
- ⇒ Although unlikely with this small sample size, the possibility of improvement in cognitive scales, computerized cognitive testing, and cerebral blood flow will also be assessed as exploratory outcomes in the Phase 1 study
- ⇒ Anticipate next clinical study, with success in Phase 1, starting as Phase 2 study with potential to expand to Phase 3 registration study based on interim expansion analysis

Business Considerations

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Acumen Leadership Team

Experienced in AD/Neuro Drug Development

DANIEL O'CONNELL
President & CEO
ACUMEN
neuroventures

ERIC SIEMERS, MD
Chief Medical Officer
ACUMEN
Lilly

JANICE HITCHCOCK, PHD
VP, Regulatory Affairs
ACUMEN
Lilly

MATT ZUGA
Chief Financial Officer &
Chief Business Officer
ACUMEN
HIGHCAPE PARTNERS

RUSSELL BARTON
Chief Operating Officer
ACUMEN
Lilly

ROBERT DEAN, MD, PHD
Sr. Development Advisor,
Biomarkers and Analytical
Methods
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Lilly

LIEAN SCHENK
VP, Head of CMC
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Lilly Lonza
NOVAVAX

SIEW TIN GAN
Head of Clinical
Operations
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Takeda

JASNA JERECIC, PHD
Analytical Methods
Leader, Research Scientist
ACUMEN

DEREK MEISNER, JD
Chief Legal Officer
ACUMEN
X4

JULIE BOCKENSTETTE
Executive Vice President,
Head of HR
ACUMEN
Roche
Lilly

Acumen team has decades of experience in Alzheimer's drug discovery and development.

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ACU193 IP & Market Exclusivity

- Exclusive, perpetual, irrevocable, worldwide, royalty-free license from Merck to its Amyloid Derived Diffusible Ligand (ADDL) IP, including issued ACU193 patents
- ACU193 Global IP estate:
  - ✓ Issued patents in 19 countries
  - ✓ Composition of matter patents and methods of use run into July 2031
  - ✓ Patent term extensions may be available, 3-5 years depending on jurisdiction
- Biologics market exclusivity is expected for ACU193 as a novel biologic drug
  - ✓ US provides 12 years market exclusivity for novel biologics
  - ✓ Europe provides 10 years of market exclusivity for novel biologics

Acumen is Well Capitalized, With Expected Cash Runway Through 2025

MILESTONES	STATUS/ EXPECTED TIMING
Initiated Ph1 clinical trial INTERCEPT-AD	✓
INTERCEPT-AD enrollment complete	Q1 2023
Proof-of-mechanism topline results	Q3 2023

~$200M

Cash, cash equivalents and marketable securities as of September 30, 2022

We believe that Acumen has the organizational expertise and cash and marketable securities on hand to advance ACU193 through 2025.

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ABOS: Key Takeaways

- Massive unmet need in AD, recent favorable trends and cumulative learnings position field for future successes
- Upcoming sector catalysts 2H22 - 1H23
- Differentiated product candidate targeting toxic AβOs
- Experienced AD drug development team
- Blue chip investors, very strong balance sheet and cash runway with multiple milestones through 2025
- Value-inflection clinical data 2H 2023

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Thank You

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