## **ANNEXON** biosciences



THE START

of classical complement-driven diseases

Investor Presentation July 2022

## Forward-Looking Statements

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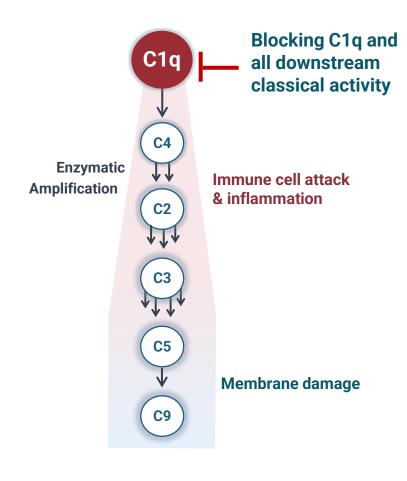
This presentation concerns drug candidates that are under clinical investigation, and which have not yet been approved for marketing by the U.S. Food and Drug Administration (FDA). These are currently limited by federal law to investigational use, and no representation is made as to their safety or effectiveness for the purposes for which they are being investigated.

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## Pioneering a Powerful Approach to Classical Complement Inhibition

#### **Classical Complement Pathway**



- Complement inhibition is a validated clinical and commercial approach
- Annexon's next-generation approach blocks both upstream
   & downstream complement for enhanced outcomes
- Advancing 5 fit-for-purpose drug candidates for complement-mediated diseases of the body, brain & eye
- **Clinical benefit with ANX005 shown** in multiple indications
- Well-positioned to drive significant value with
   7 clinical trial readouts anticipated in 2022-2023



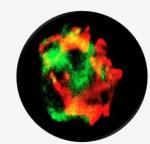
## C1q: A Key Driver of Complement-Mediated Disease

Initiator of aberrant or excess complement activity in autoimmune and neurodegenerative diseases

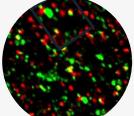
#### Key Takeaways

- C1q is initiating molecule in classical complement cascade
- C1q binds tissue surfaces to **anchor and amplify** complement activation and drive disease
- C1q marks cells and synapses for elimination by microglia and tissue macrophages

#### Initiator: C1q Binding to Tissues in Disease



Autoimmune Guillain-Barré Syndrome C1q Targeting the Neuromuscular Junction<sup>1</sup>

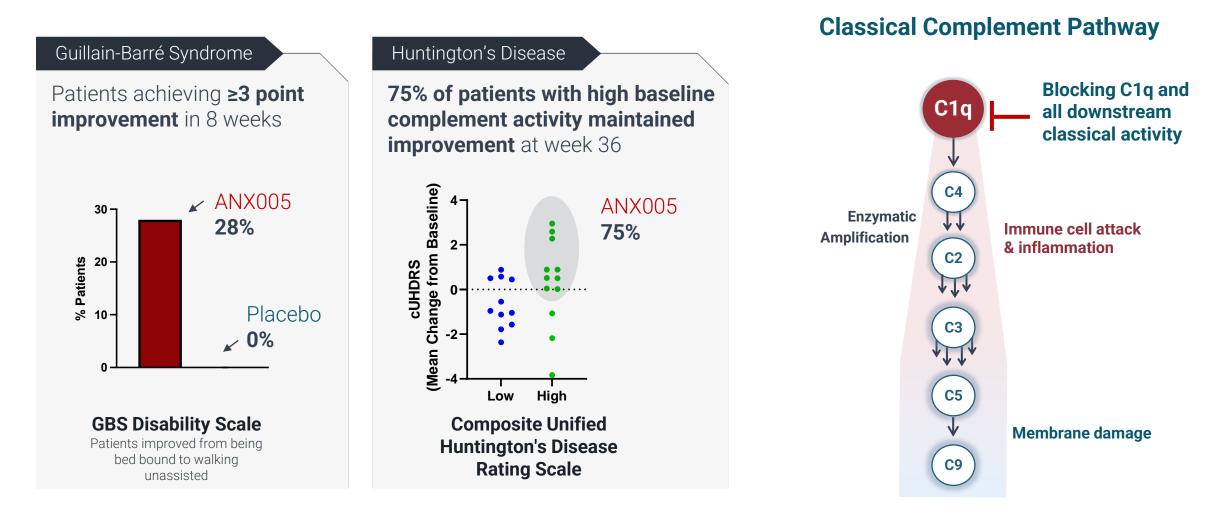


Neurodegeneration Huntington's Disease C1q Targeting Striatal Synapses<sup>2</sup>

Ophthalmologic Geographic Atrophy C1q Targeting Photoreceptor Synapses<sup>3</sup>



## Upstream Classical Complement Inhibition Associated with Clinical Benefit





#### Annexon data on file. GBS Disability Scale and composite Unified Huntington's Disease Rating Scale are accepted regulatory endpoints.

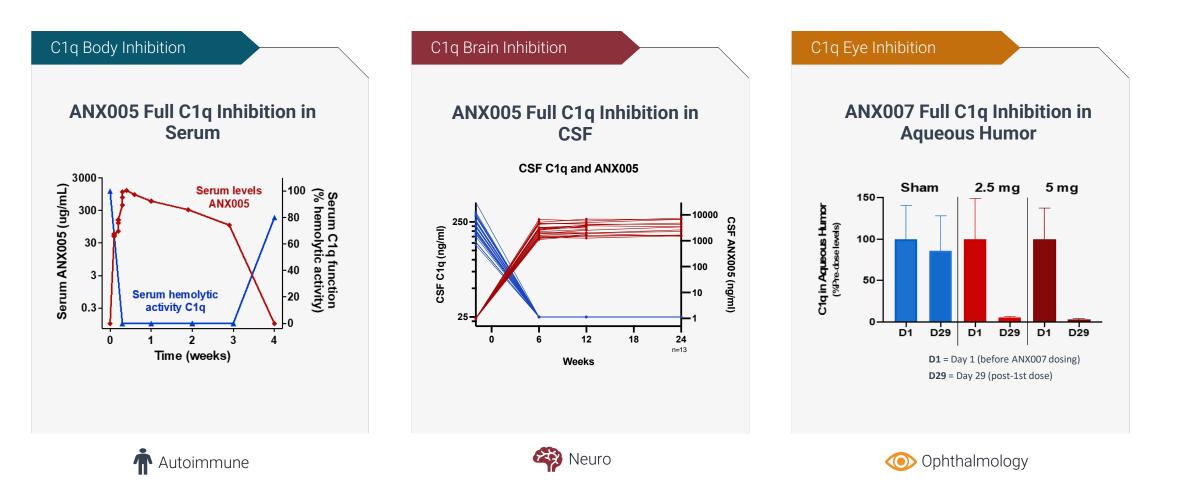
## Advancing Pipeline of 'Fit for Purpose' Drug Candidates Across Multiple Complement-Targeted Diseases

#### **Targeting Both Rare & Large Patient Populations**

CANDIDATE	DESIGN	FRANCHISE	INDICATION	PRECLINICAL	- PH/	ASE 1	PHASE 2	PHASE 2/3
<b>ANX005</b>	IV mAb	Ť	Guillain-Barré Syndrome (GBS)					
		Ť	Warm Autoimmune Hemolytic Anemia (wAIHA)					
		<b>(</b>	Huntington's Disease (HD)					
		<b>A</b>	Amyotrophic Lateral Sclerosis (ALS)					
ANX007	IVT Fab		Geographic Atrophy (GA)					
ANX009	Subcutaneous Fab	Ť	Lupus Nephritis (LN)					
ANX105	IV mAb	ተ 🏟	Autoimmune/ Neurodegeneration					
ANX1502	Oral small molecule	Ť	Autoimmune					
		1	Autoimmune	Neuro	Ophthalmo	ology		ANNEX

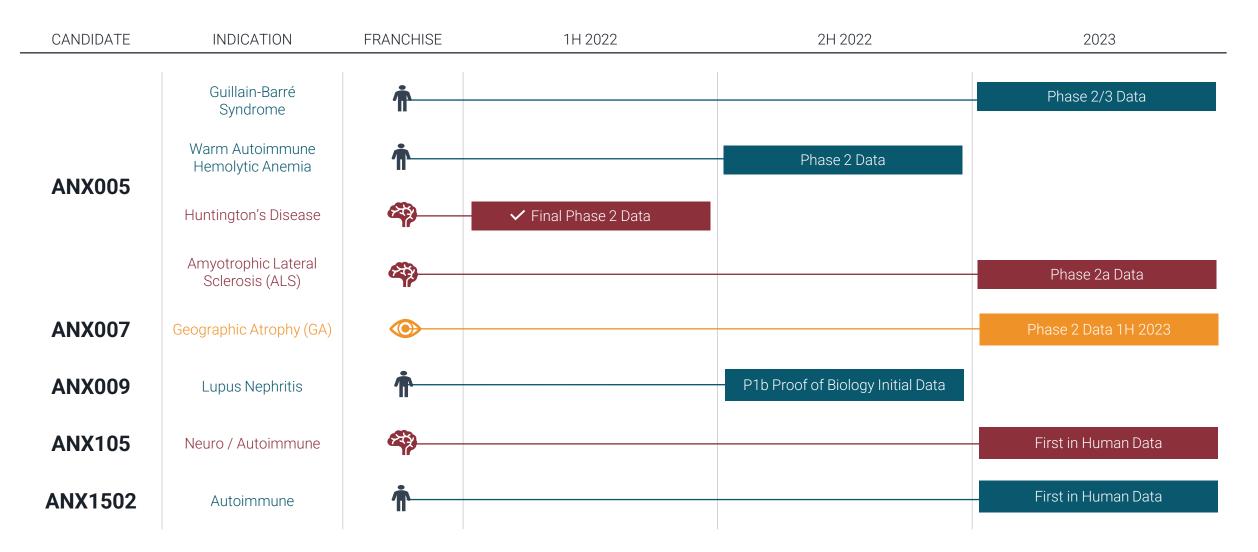
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Lead Candidates Demonstrated Robust Target Engagement in Body, Brain and Eye in Clinical Trials





## Multiple Value-Creating Opportunities in 2022 and 2023





# **ANX005**

## for Autoimmune & Neurodegenerative Disease

- Guillain-Barré Syndrome (GBS)
- Warm Autoimmune Hemolytic Anemia (wAIHA)
- Huntington's Disease (HD)
- Amyotrophic Lateral Sclerosis (ALS)



## ANX005: Designed to Fully Inhibit C1q and the Entire Classical Complement Pathway



#### ANX005 Key Attributes

- Full-length monoclonal antibody formulated for intravenous administration
- ✓ Fully inhibits C1q in the body and brain, with complete target engagement in blood and CSF
- Well-tolerated in clinical trials; >170 patients treated to date
- Demonstrated early improvement in clinical outcomes for patients with Guillain-Barré Syndrome and Huntington's Disease
- ✓ High binding affinity (<10 pM)</p>



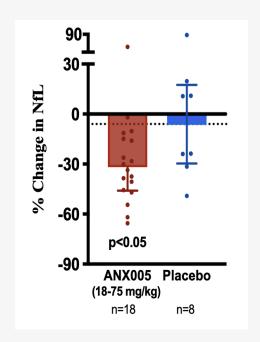
### ANX005 for GBS Inhibiting Upstream to Stop Downstream Neuroinflammation

#### Guillain-Barré Syndrome Overview

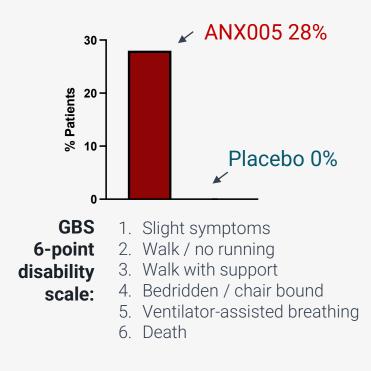
- C1q binds autoantibodies on nerves and amplifies complement cascade
- Inhibiting C1q with ANX005 stops downstream activation of tissuedamaging components in GBS
- In POC trial, ANX005 was welltolerated, achieved full target engagement, early reduction in neuronal death and improvement in muscle strength preceding gain of function

#### ANX005 POC Data in GBS

Statistically Significant Early NfL Reduction (Weeks 2-4)



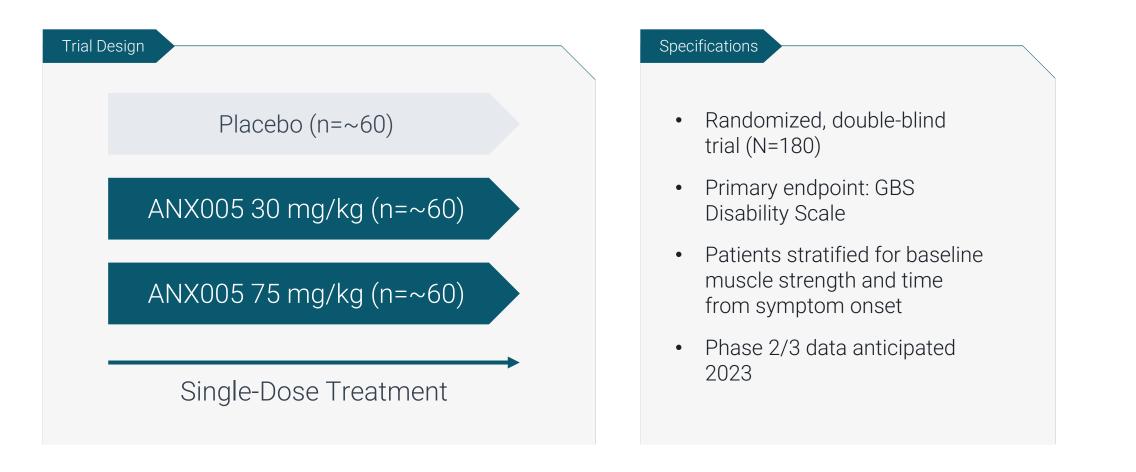
Patients achieving ≥3 point improvement in 8 weeks







# Placebo-Controlled Phase 2/3 GBS Trial Ongoing with Data Anticipated in 2023







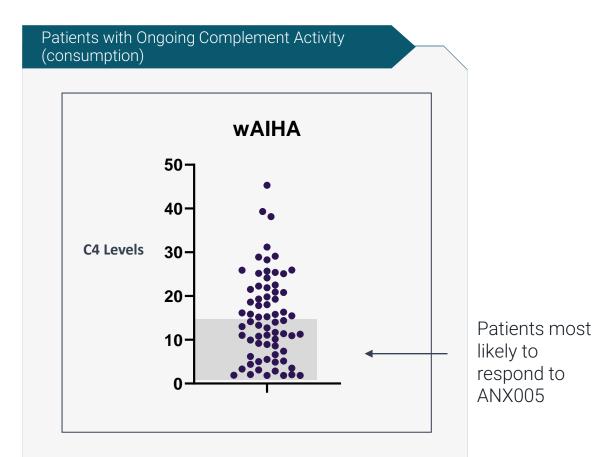
## ANX005 for wAIHA

Inhibiting Upstream to Stop Complement-Mediated Disease

Data from ongoing Phase 2 trial anticipated in 2H22

Warm Autoimmune Hemolytic Anemia Overview<sup>1</sup>

- C1q binds to red blood cells on autoantibody coated surface causing anemia
  - IgG and IgM antibodies
- C1q and complement activation amplify RBC destruction in ~25-50% of patients
  - Complement levels correlate with level of hemolysis
- Selecting patients with high baseline complement activity who have a similar profile to CAD patients
- ANX005 achieves full suppression of complementmediated hemolysis

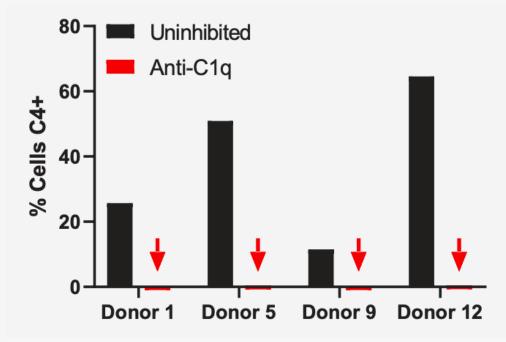






## ANX005 Blocks Complement Activity in wAIHA Patient Sera

Ex Vivo Blockade of C4 Deposition on RBC in wAIHA Patient Sera with ANX005





## ANX005 Phase 2 Trial for wAIHA Underway; Clinical Data Anticipated in 2H 2022



#### Specifications

- Open label trial (n= up to 12); on and off treatment assessments
- Using Phase 0 'feeder' study to identify/select patients for Phase 2
- Objective endpoints: safety, PK/PD, hemolysis markers, improvement in hemoglobin
- Phase 2 data anticipated 2H 2022





## ANX005 for Huntington's Disease (HD) Inhibiting Upstream to Protect Functioning Synapses

No approved therapies that slow or stop disease progression

- Inherited, fatal disease that causes progressive synapse damage and loss associated with neuroinflammation and loss of neurons
- Affects ~80K people globally, with ~300K at risk of inheriting the disease-causing HD gene<sup>1</sup>
- Life expectancy after diagnosis estimated to be **15-20 years**
- **Progressive decline** in motor, cognitive and psychiatric function





## Loss of Functioning Synapses Results in Neurodegeneration

Blocking C1q protects functioning synapses, prevents loss and decreases disability<sup>2</sup>

#### C1q's Normal Role In Development

- C1q selectively recognizes, tags & drives removal of excess synapses
- Strong synapses remain to form appropriate circuits and normal brain health

#### C1q's Role In Neurodegenerative Disease

- C1q recognizes, tags & drives removal of functioning synapses
- Triggers inappropriate synapse damage and loss, neuroinflammation and degeneration



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<sup>1</sup>Selkoe, 2002 Science **298**:789 | <sup>2</sup>Wilton 2021 doi.org/10.1101/2021.12.03.471180; Hong 2016 Science 10.1126/science.aad8373; Stevens 2007 Cell DOI 10.1016/j.cell.2007.10.036; Fonseca, 2004, J Neurosci; Dejanovic, 2018, Neuron; Vukojicic, 2019, Cell Reports; Howell, 2011, J Clin Inves; Williams, 2016, Mol Neurodege; Lui, 2016, Cell **165**:921; Krukowski, 2018, Int.J Mol Sci; Holden, 2021, Science; Annexon NfL reduction in SOD1 model, unpublished; Absinta, Nature, 2021



## Phase 2 Open-label Clinical Trial of ANX005 in Patients With, or at Risk for, Manifest Huntington's Disease

6-mc	3-month follow-up	
0	administered by IV infusion on Days 1 and 5 or 6, nce dosing every 2 weeks through Week 22	Follow up visits on Weeks 24, 28, and 36
Study Population	Primary & Secondary Endpoints	Exploratory Endpoints
<ul> <li>Adults with, or at risk for, manifest HD ("Early HD")</li> <li>Total CAP score &gt;400</li> <li>UHDRS independence score ≥ 80%</li> </ul>	<ul> <li>Safety and tolerability of ANX005</li> <li>PK of ANX005 in serum &amp; cerebrospinal fluid (CSF)</li> <li>PD as measured by C1q, NfL, and C4a serum and CSF concentrations</li> </ul>	<ul> <li>Composite UHDRS and its components</li> </ul>
Final Clinical Study Findings Include:	<ul> <li>Target engagement, clinical measures and NfL completed both treatment and follow-up period</li> <li>Clinical measures in patients with high vs. low (</li> </ul>	ls (n=23)

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Safety and tolerability (n=28) 



## ANX005 Phase 2 Trial Patient Baseline Demographics

Study Participant Characteristics	All Patients % (N=28)	Treatment Completers % (N=23)	TRACK-HD* % (N=123)
Age, mean SD, years	49.7 (12.5)	48.5 (13.3)	48.8 (9.8)
Female, %	42.9	34.8	45
CAG repeat length mean (SD)	44.6 (3.5)	45.1 (3.7)	43.7 (3.0)
CAP score mean, (SD)	505.7 (57.9)	512.2 (60.4)	NR
Manifest HD, n (%)	25 (89.3)	21 (91.3)	123 (100)
CSF C4a, mean (SD) ng/mL	13.9 (8.2)	15.0 (7.0)	NR
Baseline plasma NfL, mean (SD) pg/mL	40.1 (13.7)	41.3 (13.3)	NR
Baseline CSF NfL, mean (SD) pg/mL	3104.1 (810.8)	3236.0 (816.8)	NR
cUHDRS, mean (SD)	10.4 (3.2)	10.1 (2.9)	11.7 (2.9)
Total Functional Capacity , mean (SD)	10.6 (2.2)	10.4 (2.3)	10.9 (2.0)
Total Motor Score, mean (SD)	21.6 (12.6)	22.3 (11.4)	23.7 (10.8)
Symbol Digit Modalities Test, mean (SD)	29.7 (11.3)	28.8 (11.0)	33.6 (10.2)
Stroop Word Reading Test, mean (SD)	59.0 (18.7)	56.7 (16.7)	78.3 (19.5)

~ 90% of patients had "early manifest HD"

 Demographics consistent with prior HD natural history study cohorts (e.g., TRACK-HD\*)

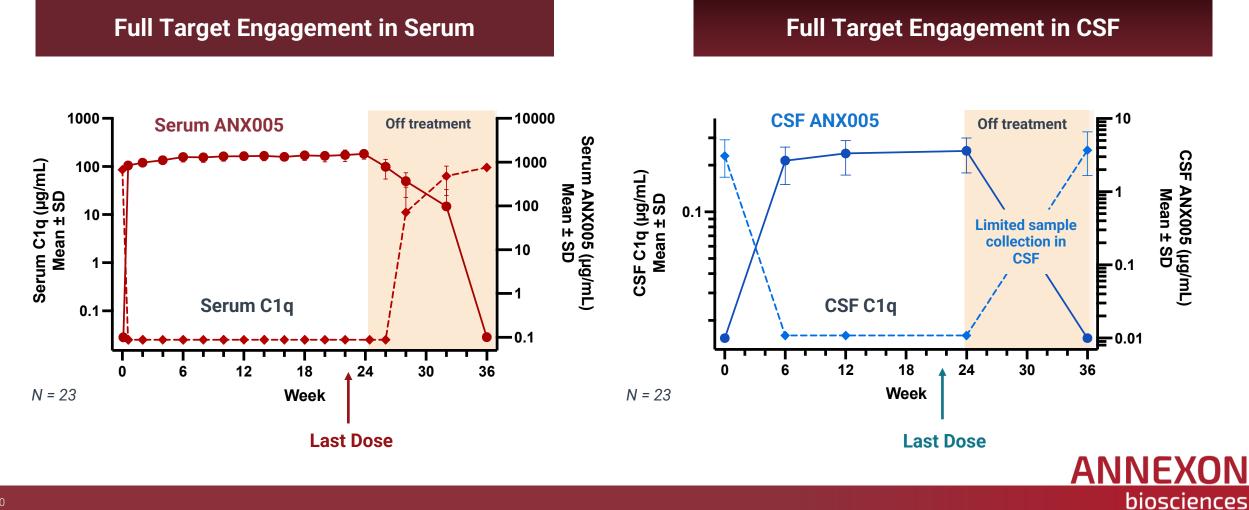
\* TRACK-HD, HD natural history study. For illustrative purposes only - differences exist between patient demographics, study designs, and other factors and caution should be exercised when comparing data across studies. NR=not reported





# Neuro ANX005 Demonstrated Complete & Durable C1q Inhibition in Blood and CSF

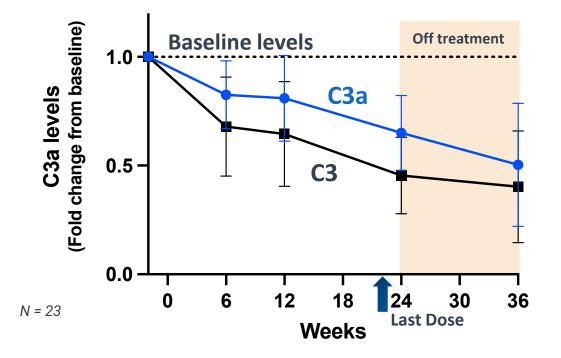
Target engagement 4-10 weeks in serum post last dose; may support less frequent dosing





Evidence of Reduced Downstream Complement Activation & Neuroinflammation Through Entire 9 Month Study

#### **Drug Effects Continue into Off-treatment Period**



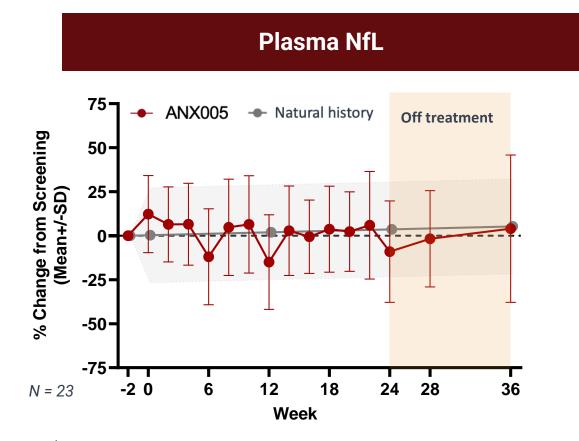
#### ANX005 showed:

- Reduction of downstream complement activation (C3a)
- Reduction of neuroinflammation (C3)
  - C3 is produced by activated, neurotoxic astrocytes in the brain<sup>1</sup>

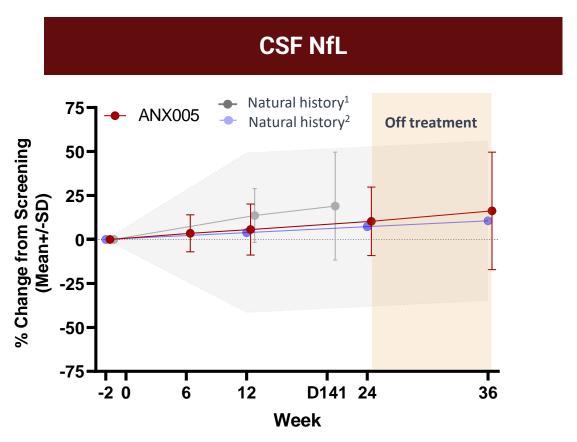




## NfL Changes Stable and Consistent with Natural History Through Treatment and Follow-up Periods



<sup>1</sup>Interpolated data for manifest cohort; Rodriguez, et al., Sci Transl Med. 2020 12 16;12(574)



<sup>1</sup>Tabrizi, NEJM 2019, 38:2307 <sup>2</sup>Interpolated from Rodrigues, et al., Sci Transl Med. 2020 12 16;12(574)

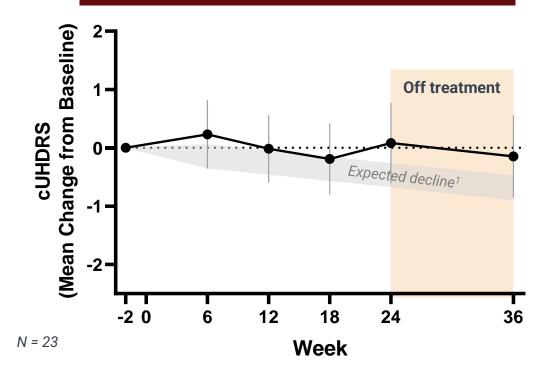


Results independent of baseline complement activity

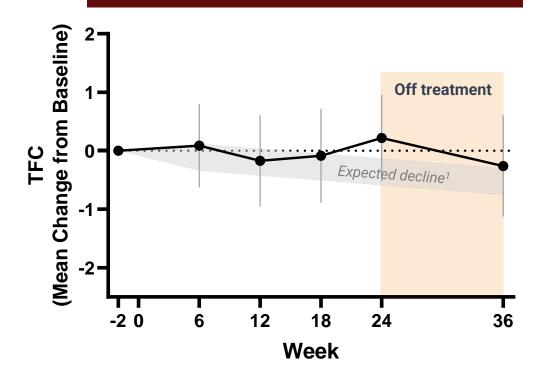


## Clinical Disease Progression Stable in Overall Patient Population Through Entire 9-month Study

#### cUHDRS Stable Over 9 Months



#### **TFC Stable Over 9 Months**





MMRM; LS means +/- 95% CI <sup>1</sup> Expected decline = interpolated natural history from Schobel 2017 (TRACK-HD)

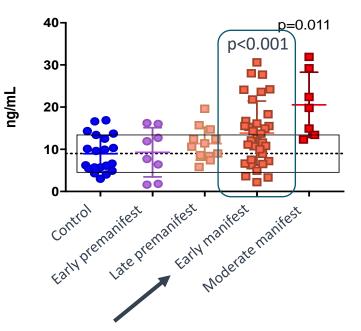


# Complement Activation Correlates with Disease and Functional Decline in HD

Patients with higher baseline complement activity may be more likely to respond to anti-C1q therapy

## CSF C4a Elevated and Increase with HD Progression\*

CSF C4a Levels



Early manifest consistent with patients enrolled in current study

CSF C4a Activation Correlate with HD Functional Decline

Clinical endpoints	p-value	
Total functional score (TFC)	0.0333	
Total motor score (TMS)	0.0181	_ Mot Fun
Disease burden score (DBS)	0.1310	
Symbol digit mod. Test (SDMT)	0.0324	
Verbal fluency	0.0255	Cog
Stroop color naming (SCN)	0.0454	Sca
Stroop word recall (SWR)	0.0710	

Motor & Function

Cognitive Scales

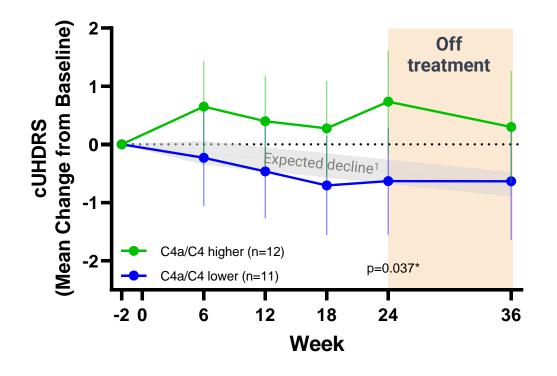


\*Higher complement activity in CSF (C4a) of HD Patients associated with disease severity & functional decline Presented at HSG, November 2021; Annexon Collaboration with Ed Wild UCL

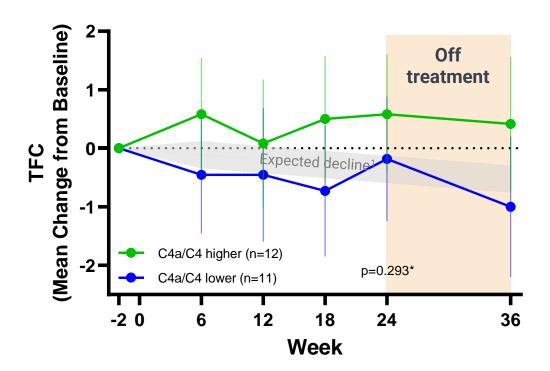


<sup>Neuro</sup> Rapid Benefit Maintained in Patients with High Baseline Complement Activity Through Treatment and Follow-up Periods

Benefit at All Time Points in High Complement Group (cUHDRS)



#### Benefit at All Time Points in High Complement Group (TFC)

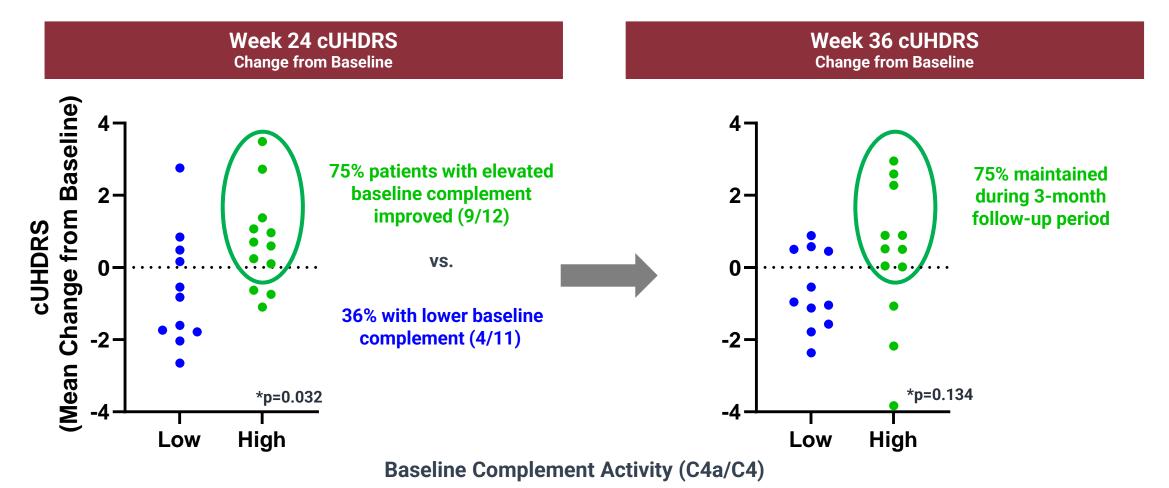


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\*Comparing higher vs lower C4a/C4 groups at week 2; MMRM; LS means +/- 95% CI; N=23 <sup>1</sup>Expected decline = interpolated natural history from Schobel 2017 (TRACK-HD)

75% of Patients with High Baseline Complement Levels Showed Improvement at Week 24, Maintained at Week 36

Twice as many patients with high complement improved compared to patients with low complement



Baseline demographics evenly matched between patients with higher and lower CSF complement activation \*Wilcoxon-Mann-Whitney Test



Neuro

Neuro

# Chronic Dosing of ANX005 Generally Well-Tolerated with Favorable Benefit-Risk Profile Demonstrated in HD

	Safety Population (N=28)		
Treatment Emergent Adverse Events	All Grades, N (%)	Grade 3, N (%)	
Any reported TEAEs	28 (100.0)	12 (42.9)	
Most Common TEAE			
Infusion Related Reactions (IRR)	28 (100.0)	8 (28.6)	
Most Common TEAEs (non-IRR)	25 (89.3)	6 (21.4)	
Dizziness	5 (17.9)	0 (0)	
Nausea	5 (17.9)	0 (0)	
Headache	4 (14.3)	0 (0)	
Vomiting	4 (14.3)	0 (0)	
COVID-19	4 (14.3)	0 (0)	
Rash	4 (14.3)	1 (3.6)	
Serious TEAEs	2 (7.1)	2 (7.1)	
Related to ANX005	2 (7.1)	2 (7.1)	
Infections	0 (0)	0 (0)	
TEAE with Fatal Outcome	0 (0)	0 (0)	

• No change in safety results from interim analysis

- IRR primarily first dose effect none after 2nd dose
- No deaths and no serious infections observed
- Two treatment discontinuations unrelated to drug (Covid-19, consent withdrawn)
- Three treatment discontinuations potentially related to drug: all improved/resolved after drug cessation
  - One event each: idiopathic pneumonitis (SAE), systemic lupus erythematosus (SAE), asymptomatic hemolytic anemia (AE)
- All cases of treatment discontinuation had elevated ANA titers at baseline; no patients with normal ANA titers developed SAE
- Enhanced screening of ANA autoantibody levels at baseline and additional monitoring incorporated into ongoing/future trial to reduce risk in chronic ANX005 dosing protocols





Promising ANX005 Phase 2 Results Support Continued Advancement in Huntington's Disease

Phase 2 HD Trial Learnings and Next Steps

- ✓ Full C1q target engagement in blood and CSF into follow-up period
- ✓ Stabilized disease progression in full cohort over 9-month study
- Rapid clinical improvement maintained in patients with higher baseline complement activity over 9-month study
- Generally well-tolerated with favorable benefit-risk demonstrated in HD; enhanced safety management approach implemented
- First evaluation of widely-researched MOA in the clinic; increasing appreciation for preserving functioning synapses for brain health

Planning engagements with US and EU regulators

Assessing opportunity to conduct well-controlled study in HD, leveraging precision medicine approach





### ANX005 for ALS Inhibiting Upstream to Stop Neuroinflammation & Synaptic Loss Data from ongoing Phase 2a trial anticipated in 2023

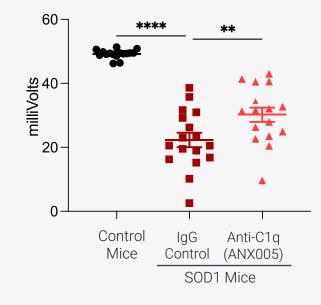
Amyotrophic Lateral Sclerosis Overview<sup>1</sup>

- A fatal neurodegenerative disorder, characterized by loss of upper (central) and lower (peripheral) motor neurons
- C1q binds to synapses, and amplifies complement-mediated synaptic loss and disability
- ANX005 demonstrated target engagement in central and peripheral nervous systems (HD & GBS)

Compound Muscle Action Potential

Anti-C1g Protected Muscle Function in SOD1 ALS Mouse Model

(Base to Peak Amplitude)







## ANX005 Phase 2a ALS Trial Ongoing; Data Anticipated in 2023



#### Specifications

- Open label trial (N= ~24)
- Target patients: Targeting all forms of ALS, onset of weakness within 3 years prior to enrollment, ALSFRS-R ≥ 30
- Objective endpoints: Safety, PK, C1q target engagement, and NfL concentrations in serum, Clinical outcomes (ALSFRS)
- Phase 2a data expected 2023



## ANX007 for Ophthalmologic Diseases

• Geographic Atrophy (GA)



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Ophthalmology

## ANX007 Designed to Fully Inhibit Complement Activation in Neurodegenerative Diseases of the Eye



#### ANX007 Therapeutic Approach

- ✓ Fab formulated for intravitreal administration
- Localized inhibition of C1q and the classical cascade in neurodegenerative diseases of the eye
- ✓ Administered to >200 patients to date
- Well-tolerated in Phase 1b, with full target engagement in the eye for at least four weeks
- Preclinical data demonstrating protection of photoreceptor cells and retinal function

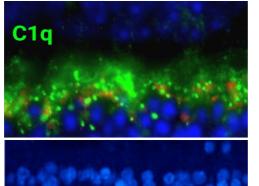


### <sup>3</sup> ANX007 for GA C1q Inhibition Blocks All Downstream Tissue Damage Data from ongoing Phase 2 trial anticipated in 1H 2023

ANX007 Therapeutic Approach

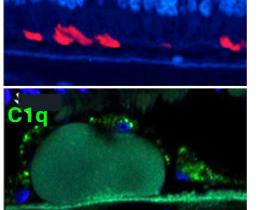
- GA is a leading cause of blindness<sup>1</sup>
- Potential for enhanced efficacy by blocking upstream C1q and C4, and downstream C4, C3 and C5 activities that drive local immune response and destruction in retina
- Blocking C1q retains homeostatic function of C3 and C5

Photoreceptor synapses



Photoreceptor outer segments

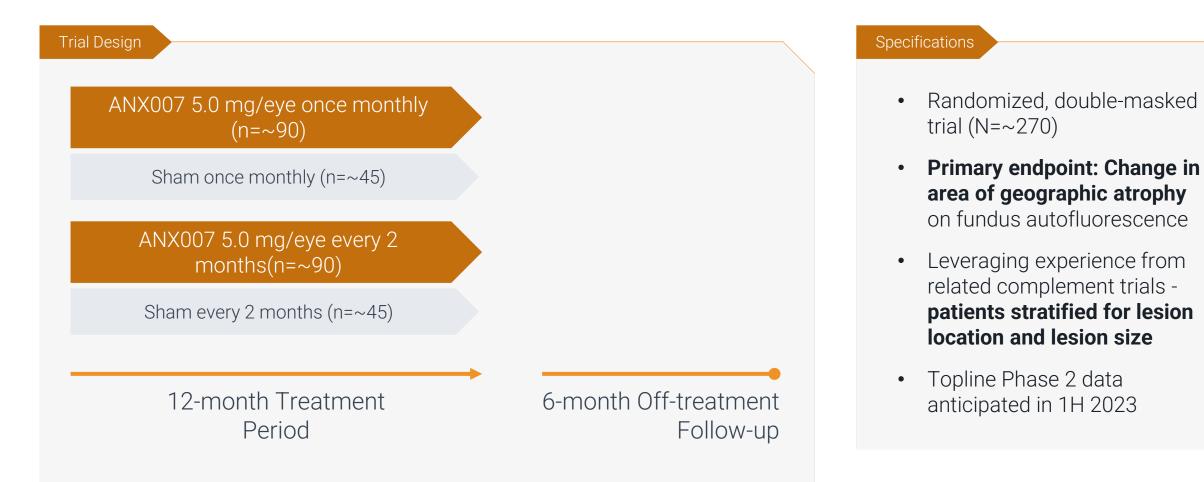
Drusen below photoreceptors





Ophthalmology

## ANX007 Phase 2 Trial in GA Ongoing; Data Anticipated in 1H 2023





## ANX009 Subcutaneous for Autoimmune Diseases

• Lupus Nephritis (LN) and additional disorders





## ANX009 Selectively Inhibits Complement Activation Only in Vascular Space



#### ANX009 Therapeutic Approach

- Subcutaneous formulation of an antigen-binding fragment (Fab)
- ✓ Selectively inhibits C1q in the vascular space
- ✓ Well-tolerated in Phase 1 trial, twice weekly dosing provided sustained C1q inhibition in the circulation
- Designed to enable chronic dosing for use in future trials of autoimmune indications

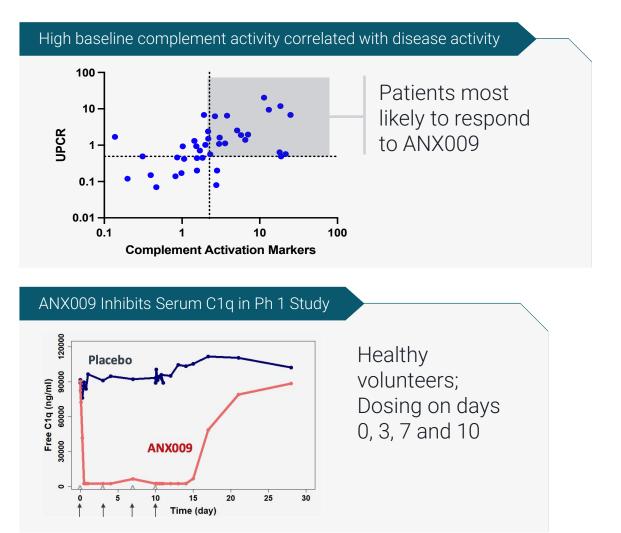




## ANX009 for Lupus Nephritis (LN) Selectively Inhibiting C1q to Stop Complement-Mediated Disease

Lupus Nephritis (LN) Overview<sup>1</sup>

- Autoantibodies against C1q enhance its activity and uniquely amplify kidney inflammation and damage
- Precision medicine: Targeting patients with high baseline complement activity (top graph)
  - Approximately 1/3 of the population
- In a Phase 1 study, twice weekly subcutaneous dosing of ANX009 provided full serum inhibition (bottom graph)





## ANX009 Phase 1b Trial in Lupus Nephritis Ongoing; Initial Data Anticipated in 2H 2022



#### Specifications

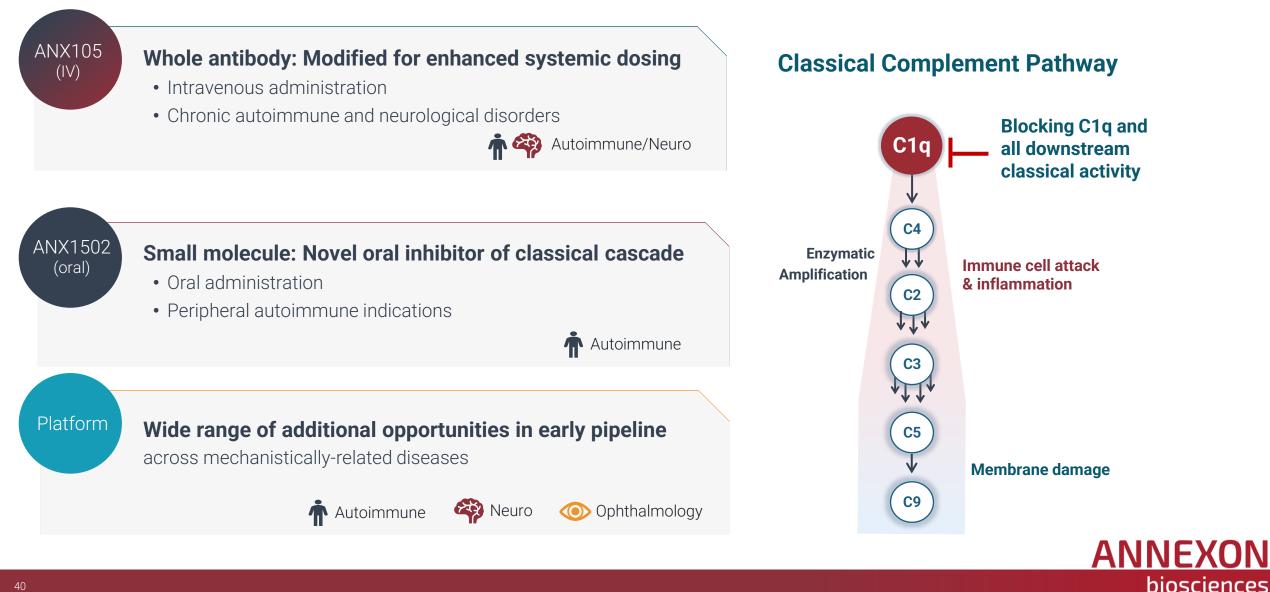
- Target patients: Classical complement activity, smoldering disease, proteinuria, stable background therapy
- Objective endpoints: Safety and tolerability, complement PD markers, exploratory markers of renal tissue damage and function
- Phase 1b initial data anticipated 2H 2022



## **LOOKING AHEAD** 2022 Priorities



### Robust Preclinical Pipeline with Two Named Candidates Advancing Toward Clinical Development in 2022



## Five Key Clinical Priorities Driving Activities Through 2022

Engage with US and EU regulators to discuss well-controlled study of ANX005 in HD, leveraging precision medicine approach

Expect to report Ph2 data from ANX005 trial in wAIHA in 2H22

Expect to report initial Ph1b data from ANX009 trial in LN in 2H22

Prepare for multiple 2023 clinical readouts in GA, GBS and ALS

Initiate clinical development of early-stage assets, ANX105 and ANX1502



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