

# **Corporate Presentation**

October 2024

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### Jade Biosciences is developing potentially transformative therapies for high-value Inflammation and Immunology indications

Jade's mission is to deliver best-in-class therapies for patients living with autoimmune diseases.

- Developing potential best-in-class therapies for the treatment of autoimmune diseases, including IgA nephropathy (IgAN).
- Fourth company launched to research and develop antibody candidates licensed from Paragon Therapeutics, an antibody discovery engine founded by Fairmount.
- Following in the footsteps of Apogee, Spyre, and Oruka, which have collectively raised
   \$1.8B and have generated clinical data utilizing Paragon's half-life extension technology.

MOA	Program	Discovery	IND- enabling	Planned Clinical FIH	Planned Healthy Volunteer Data
anti-APRIL	JADE-001			2H25	1H26
Undisclosed	JADE-002			1H26	
Undisclosed	JADE-003			1H27	



#### **Experienced Management Team with Backing from Paragon**

Management



Tom Frohlich



Andrew King CSO, Head of R&D



Hetal Kocinsky



Valerie Fauvelle SVP, Regulatory &



Jonathan Quick SVP, Finance



Elizabeth Balta GC & Corporate Secretary



Amy Sullivan SVP, Development Operations



Sandy Lewis SVP, Biometrics and Clinical Strategy

Board of **Directors** 



Eric Dobmeier Board Chair



Erin Lavelle Board of Directors



Lawrence Klein Board of Directors



Tomas Kiselak Board of Directors



Chris Cain Board of Directors



Tom Frohlich Board of Directors

























































# JADE-001: a potential best-in-class anti-APRIL mAb for IgAN



### Jade is developing a potential best-in-class anti-APRIL mAb designed to have disease-modifying MoA in IgAN



Estimated \$10B+ newly branded market



Current approved treatments don't adequately address young patient population with need for long-term diseasemodifying therapy



Anti-APRIL mechanism is potentially diseasemodifying



Shown to reduce pathogenic IgA and proteinuria, and preserve kidney function



JADE-001 has potential best-in-class profile



Designed to have superior potency and half-life for maximal efficacy & convenient dosing in young patient population requiring lifelong therapy



Efficient development path to PoC and market



HV IgA biomarker closely correlated with efficacy in IgAN; Potential surrogate endpoints support potential IgAN approval



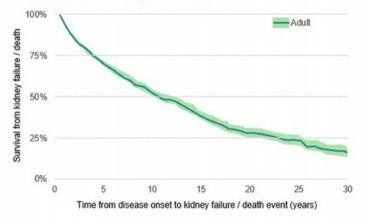
HV - Healthy Volunteers; PoC - proof of concept

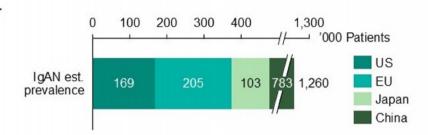
### ~169K+ IgAN patients in US, majority with persistent proteinuria, representing potential \$10B+ market

IgAN patients with persistent proteinuria are at risk of kidney failure

~1M+ global patients, significant potential ex-US market potential

 IgAN is an autoimmune kidney disease, typically diagnosed in 20- to 30year-olds, requiring life-long therapy.





At a prevalence of ~169K in the US, with ~60-75% of patients with persistent proteinuria requiring treatment per international guidelines, along with pricing of branded IgAN agents, the US TAM is estimated to exceed \$10B annually.

There is a high unmet need for disease-modifying treatments that are safe, well-tolerated, and convenient for life-long therapy in a young patient population.



### Current IgAN treatments leave significant unmet need, with no diseasemodifying (i.e., long-term GFR-stabilizing) approved therapeutics

	ACEi / ARB	Systemic glucocorticoids	SGLT2i	Filspari	Tarpeyo	Fabhalta	Ideal IgAN therapy
MoA	Renin-angiotensin system inhibition	General immunosuppression	SGLT2 inhibition	Dual endothelin / angiotensin inhibition	GI-released systemic glucocorticoid	Complement Factor B inhibitor	
Status	Used off-label	Used off-label	Approved for CKD	Approved	Approved	Accelerated approval	
Therapeutic rationale	Supportive therapy (reduce glomerular pressure)	Immunosuppression	Supportive therapy	Supportive therapy	Immunosuppression	Reduce complement- driven pathology	Disease-modifying (depletes Gd-IgA1, stabilizes GFR)
Proteinuria reduction	~↓30-40%	~130-50 % at 6M; none at 3Y	↓26% pbo-adj (UACR)	↓35% control-adj at 36W	↓32% pbo-adj at 36W	↓38% pbo-adj at 36W	60 %+, ideally to < 0.3-0.5 g per day
GFR stabilization	Х	X	Х	Х	Х	No long-term data	✓
Safety	BBW (fetal tox), hyperkalemia, angioedema, AKI	Severe infections, edema, hypertension, bone density loss, etc.	UTIs, genital fungal infections, volume depletion	BBW + REMS (liver & pregnancy); hypotension, edema, AKI, hyperkalemia	Immunosuppression, edema, hypertension, weight increase, URTI	BBW + REMS (serious bacterial infections); URTI, abdominal pain	No notable safety issues, minimal immunosuppression
Annual dosing	365 x (or greater)	180-270 x (6 to 9-month course)	365 × 🕏	365 x	270 x (9-month course)	730 x	4-6 x (or fewer)



Notes: Proteinuria reduction based on UPCR. Data from Praga & Nakamura trials (ACEi / ARB), STOP-IgAN & TESTING (glucocorticoids), DAPA-CKD (SGLT2i), PROTECT (Filspari), NeflgArd

(Tarpeyo), APPLAUSE-IgAN (Fabhalta).

Sources: UpToDate; 2003 Praga (J Am Soc Nephrol); 2006 Li (Am J Kidney Dis); 2000 Nakamura (Am J Nephrol); 2022 Lv (JAMA); 2023 Campbell (Dove Press); Filspari Label; Tarpeyo Label; Fabhalta Label; KOL interviews. CKD — chronic kidney disease; UACR —urine albumin to creatinine ratio; BBW — black box warning; REMS — risk evaluation and mitigation strategy, AKI — acute kidney injury; URTI - upper respiratory tract infection

## Proposed updates to KDIGO guidelines highlight the need for therapies like JADE-001, which may reduce pathogenic IgA

Proposed guidelines expected to increase IgAN diagnosis and redefine treatment goals...

... and further underscore the importance of reducing pathogenic IgA in the treatment paradigm

Patient population

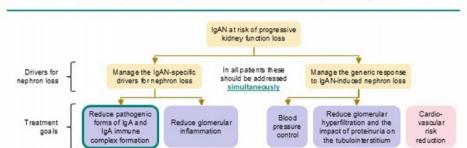
- Recommends a kidney biopsy in all adults with proteinuria ≥0.5 g/d where IgAN is a possible diagnosis.
- Recommends all patients be enrolled in an IgAN registry.

Risk of progression

- Redefines risk of progressive loss of kidney function for patients with ≥0.5 g/d of proteinuria on or off treatment (previously ≥0.75-1 g/d after maximal supportive care).
- Recommends additional treatment should be initiated in all cases where patients have proteinuria ≥0.5 g/d.

Proteinuria target

- Establishes a new, ideal treatment goal: proteinuria should be maintained at <0.5 g/d, preferably <0.3 g/d.</li>
- 0.3 g/d is the highly stringent cutoff for clinical remission used in the sibeprenlimab Phase 2.



- Proposed guidelines state, "reduction or prevention of IgA immune complex formation should incorporate treatments that have been proven to reduce pathogenic forms of IgA". Anti-APRILs and TACI-Fcs have shown the best clinical data to date for reducing pathogenic IgA.
- Guidelines also recommend therapies that prevent immune complexmediated injury should be used in combination with, and <u>not</u> as a replacement for, therapies that reduce pathogenic IgA

KDIGO updates are anticipated to increase IgAN diagnosis, expand the at-risk patient population requiring treatment, lower proteinuria target to clinical remission, and require use of targeted therapies that reduce pathogenic IgA



### Reducing pathogenic IgA production by plasma cells is a potentially disease-modifying approach for IgAN

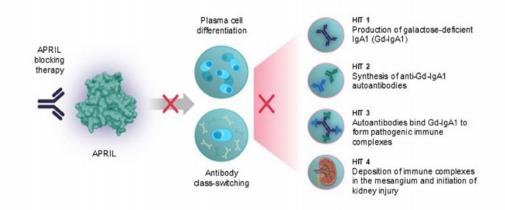
Broad **B-cell depletion** is ineffective in IgAN...

- B-cell depletion with rituximab (anti-CD20) failed to reduce Gd-IgA1, anti-Gd-IgA1 autoantibody, or proteinuria and did not impact eGFR.
- BAFF neutralization (blisibimod) did not reduce IgA or proteinuria.

Mucosa & Bone marrow Mucosa bone marrow Pro B cell Large Small Mature Naïve Immature pre-B cell pre-B cell B cell B cell Memory B cell CD20 expression BAFF dependency APRIL dependency \*Gradient indicates level of receptor expression

...while targeted plasma cell modulation is highly effective.

 APRIL and dual APRIL/BAFF neutralization result in significant and sustained depletion of Gd-IgA1, reduction in proteinuria, and eGFR stabilization.



Neutralizing APRIL depletes Gd-lgA1, reduces proteinuria, and **preserves eGFR**, providing a **disease-modifying treatment** of lgAN without impacting B-cell development and maturation.

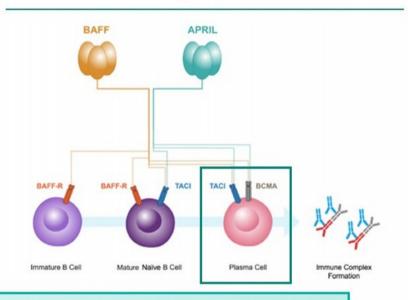


# Selectively targeting APRIL potentially provides disease modification without added immunosuppression of BAFF inhibition

APRIL is the B cell survival factor critically linked to IgAN pathogenesis and disease activity

Targeting APRIL selectively modulates plasma cells, maintaining pool of mature B cells

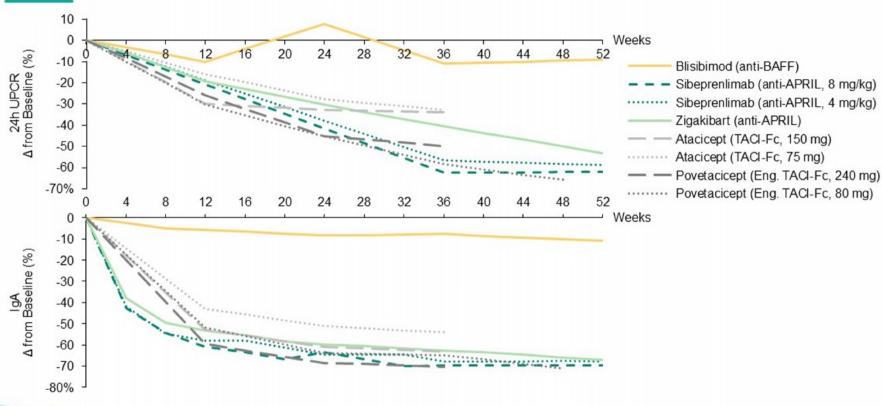
	APRIL	BAFF
Risk variant in IgAN GWAS	✓	X
Elevated in IgAN patients and associated with disease severity	✓	√/X
Promotes excess secretion of Gd-IgA1 in IgAN patient lymphocytes ex vivo	✓	No data
Drives IgA class switching via TACI in vivo	✓	X
Overexpression in mouse model leads to glomerular IgA deposition	✓	✓
KO mouse model decreases IgA levels / IgA+ plasma cells in small intestine	✓	X
Selective inhibition demonstrates preclinical / clinical efficacy in IgAN	✓	X



Existing genomic, mechanistic, IgAN model, and clinical data support the importance of APRIL over BAFF in IgAN, and APRIL-only blockade avoids the potential for unnecessary immunosuppression.



### Reductions in proteinuria and IgA in IgAN clinical studies indicate APRIL inhibition is the driving force behind TACI-Fc efficacy

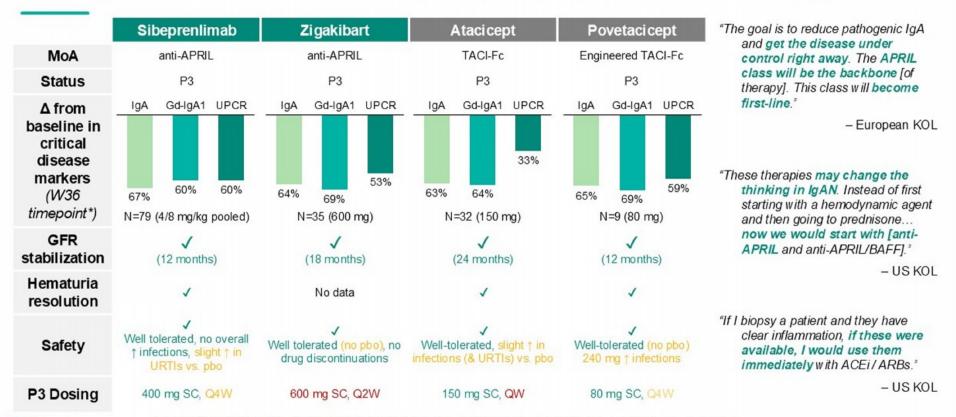




Notes: Cross-trial comparisons are inherently limited and presented for hypothesis-generating purposes only. Data digitized from graphs where publications did not provide specific values. Values only included if N > 5. Blisibimod W52 data is from W60.

Sources: Anthera 2017 10-K; 2023 Mathur (NEJM); 2023 Barratt (ERA Poster); 2024 Lafayette (KI Reports); 2024 Tumlin (WCN Presentation); 2024 Madan (ASN Presentation)

### Anti-APRILs have shown evidence of disease modification and clinical activity that matches or beats TACIs, with reduced immune suppression





Notes: \*Zigakibart IgA / Gd-IgA data at W40; UPCR data at W52 (only timepoint available); change from baseline is not pbo-controlled; N represents patients on dose(s) for which data is shown. Atacicept infections/URTIs placebo - (32%/0%), 25 mg (38%/0%), 75 mg (49%/9%), 150 mg (39%/0%). Povetacicept infection rates: Grade 1/12/23 – 80 mg 109%/5%/0%, 240 mg 18%/27%/3%. Sibe infections/URTIs placebo - (55%/0%), 25 mg/kg (39.5%/8%), 4 mg/kg (56%/2%), 2 mg/kg (39.5%/6%). Sources: 2023 Mathur (NEJM); 2024 Barratt (E RA Presentation); VE RA January 2024 R&D Day; ALPN 2024 WCN Investor Update; 2024 Madan (ASN Presentation)

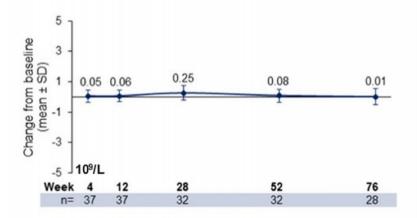
#### BAFF inhibition is accompanied by the potential for significant longterm B cell depletion

Long-term BAFF inhibition significantly depletes all B cell populations...

... whereas chronic APRIL inhibition does not impact circulating lymphocytes

~7-year data from belimumab in SLE shows continuous BAFF inhibition lowers B cell populations from ~50% to ~99%, with most populations decreasing >80%.

Biomarker	Number of patients	Median		(belimumab)
B cells (CD19+)	120	-82.73		
B cells (CD20+)	107	-83.22		
Naive B cells (CD19+/CD20+/CD27-)	107	-87.39		
Memory B cells (CD19+/CD20+/CD27+)	106	-67.18	-	
Activated B cells (CD20+/CD69+)	116	-98.85	F	
Plasmacytoid B cells (CD19+/CD20+/CD138+)	117	-98.00	D.	
SLE subset plasma cells (CD19+/CD27s@GHT+/CD38e@GHT	) 117	-50.00		
Short-lived plasma B cells (CD19+/CD20-/CD278900HT+)	114	-47.50		
Plasma B cells (CD19+/CD20-/CD138+)	118	-92.31		
lgG	150	-27.63		
		-150-	-100 -50 0 Median	50 100 150 200 250 300 35 % change (IQR) from baseline



**Long-term BAFF suppression**, in an otherwise young and healthy patient population, **is unnecessary** given equivalent efficacy in IgAN from anti-APRILs and TACI-Fcs observed to date.



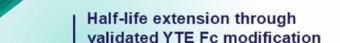
#### JADE-001 is a potential best-in-class anti-APRIL

### Blocks APRIL with greater potency than clinical benchmarks

- Validated mechanism of action
- Binds APRIL to neutralize activity
- Greater binding affinity than sibeprenlimab (≥5x) and zigakibart (≥14x)

Multiple antibody discovery strategies pursued to achieve potential best-in-class mAb

Novel IP for composition of matter into 2040s



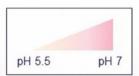
 Longer exposure intended to reduce dosing frequency

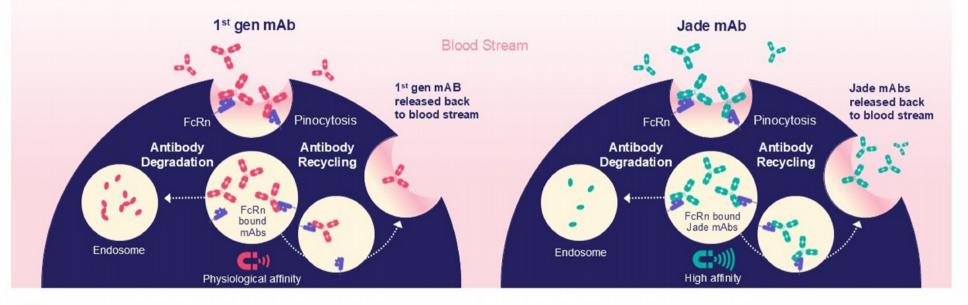
Effector-null human IgG1 Fc



#### Jade mAbs employ proven half-life extension (HLE) technology

- · Jade mAbs designed to be recycled back into circulation more readily
- · Drug exists at much higher levels for longer duration of effect
- Fewer injections decrease patient burden and can improve compliance and penetration





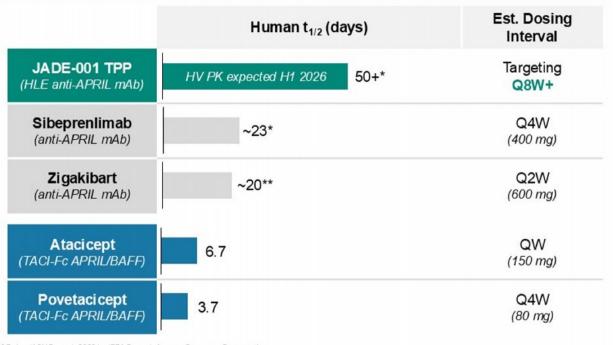


SOURCE: Adapted from Ko S et al BioDrugs 2021

### JADE-001's goal is to introduce Q8W+ dosing for IgAN patients via HLF

Prior experience, including with Paragon-generated mAbs, indicates HLE could significantly improve dosing over anti-APRILs in development

- JADE-001 employs wellestablished HLE technology, with the potential for Q8W+ dosing.
- High potency can potentially further drive lower dosing frequency – which has already been demonstrated for APRIL by sibeprenlimab's Q4W dosing vs. zigakibart's Q2W dosing despite near-equivalent half-life.





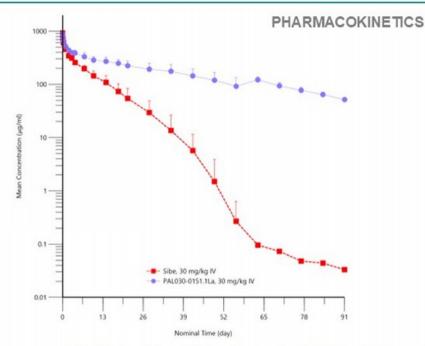
Sources: 2019 Myette (Kidney Intl); 2022 Mathur (Ki Reports); 2018 Dulos (ASN Poster); 2020 Lo (ERA Poster); Apogee Corporate Presentation
\*Based on single dose studies in NHPs dosed with JADE-001 initial clone. A development candidate will be selected from a pool of clones currently in profiling. We have exercised the Option with respect to JADE-001 under the Paragon Option Agreement but have not yet entered into the related license agreement.

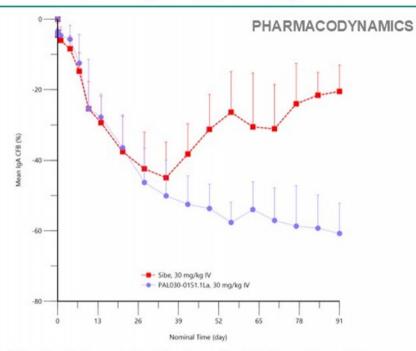
<sup>\*\*</sup>Available anti-APRIL therapeutics demonstrate appreciable TMDD resulting in dose and dose frequency dependent t1/2, Jade estimated t1/2 of benchmarks from publicly available data at the P3 dose and schedule via standard noncompartmental analysis of observed data bolstered with compartmental modelling approaches capturing clinically observed TMDD. Cross-trial comparisons are inherently limited and presented for hypothesis-generating purposes only.

### JADE-001 HLE strategy and profile in NHPs shows promise with early clone\*

~3X increased half-life over sibeprenlimab in NHPs...

... which is accompanied by prolonged IgA reduction in NHPs following a single, saturating dose





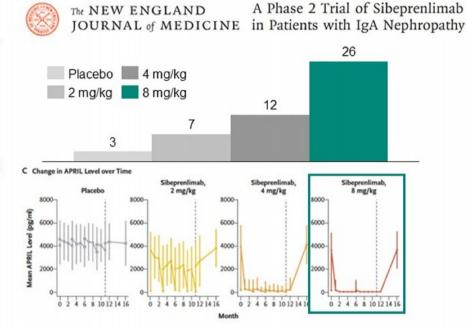


Note: \*Data shown is from an initial clone. A development candidate will be selected from a pool of clones currently in profiling. We have exercised the Option with respect to JADE-001 under the Paragon Option Agreement but have not yet entered into the related license agreement. Sibeprenlimab and JADE-001 lead clone dosed at 30 mg/kg (single dose), N=4 per group. Manufactured based on available sequences from patents / company releases. Studies are ongoing.

Sources: Internal data

#### Deeper APRIL suppression could drive superior efficacy

- The highest rates of clinical remission (<0.3 g/day urinary protein excretion) for sibeprenlimab were accompanied by the deepest levels of APRIL suppression.
- · Safety profile was consistent across dose levels.
- Significant opportunity to drive increased systemic exposure with HLE and maximize clinical remission.
- JADE-001's affinity could further contribute to potential best-in-class efficacy.

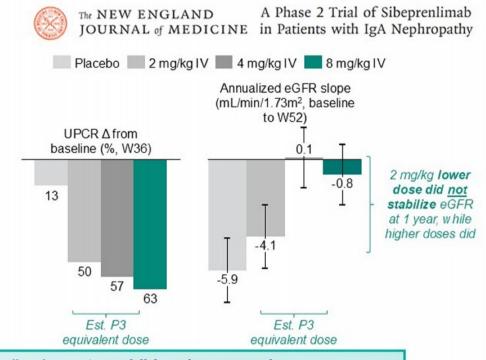


JADE-001 has potential to demonstrate superior clinical activity by maximizing remission rates in significantly more patients than other anti-APRIL programs in development.



#### Sibeprenlimab is potentially under-dosed in ongoing Phase 3 trial

- Sibeprenlimab is being dosed as a single 400mg
   SC injection Q4W in ongoing global Phase 3
   VISIONARY trial.
- 400 mg SC Q4W is equivalent to ~3.5 mg/kg IV for average IgAN patient (range 2.5-6 mg/kg).
- The estimated Phase 3 equivalent dose range demonstrated lower efficacy on key endpoints in Phase 2 ENVISION trial (as seen on right).
- ~50% of healthy volunteers in P1 SAD demonstrated positive antidrug antibody activity following a single SC dose which may further impact PK, efficacy, and safety profile in Phase 3.



Potential under-dosing of sibeprenlimab creates additional opportunity for JADE-001 to demonstrate potential best-in-class clinical activity for patients.



# Potential path to early clinical proof-of-concept and accelerated approval

MOA	Program	Discovery	Phase 1 Initiation	Potential Healthy Volunteer Data	Potential Indications
anti-APRIL	JADE-001	Ongoing	2H25	1H26	IgAN

- NHP and Phase 1 PK/PD could provide early signals of clinical activity; IgA reduction in HVs has been observed to be highly correlated with clinical activity.
- 9-month proteinuria data, which we believe is highly predictive of kidney function preservation, provides support for US submission for accelerated approval and potentially offers a faster path to market prior to eGFR confirmatory data.

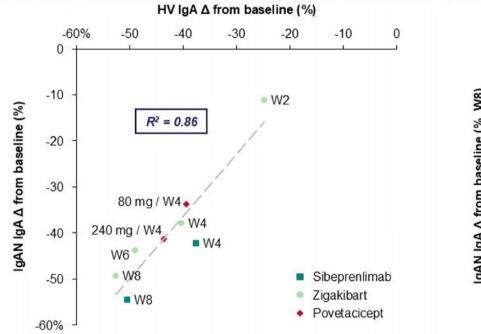
Proof-of-concept IgA healthy volunteer data expected in 1H 2026

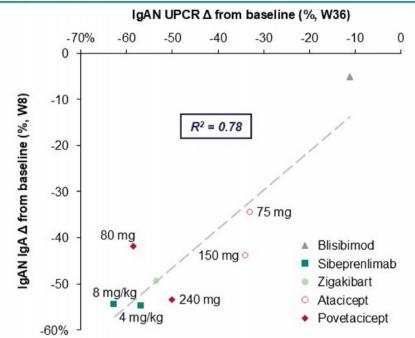


## IgA reduction in healthy volunteers is the critical inflection point for clinical development in IgAN

IgA reduction in HVs has been observed to be **highly** correlated with IgA reduction in IgAN patients

...and IgA reduction was observed to correlate with W36 UPCR reduction, the endpoint for accelerated approval







Notes: Sibeprenlimab IgAn IgA reductions (LHS) are average of 4 mg/kg and 8 mg/kg cohorts (HV data is from 6 mg/kg cohort); the two cohorts saw effectively equivalent IgA reduction at W4 and W8. Zigakibart UPCR data is at 52W. Atacicept IgAn W8 is average of W4 and W12 datapoints. Trend lines are best linear fit. Sources: 2022 Mathur (KI Reports); 2023 Mathur (NEJM); 2020 Lo (ASN Presentation); 2023 Barratt (ERA Poster); 2024 Barratt (ERA Presentation); 2022 Dillon (ASN Poster); 2024 Tumlin (WCN Presentation); Anthera 2017 10-K; 2024 Lafayette (KI Reports); 2024 Madan (ASN Presentation)

### Potential of JADE-001 in IgAN



Potential Diseasemodifying MoA

Potential to deplete pathogenic IgA and avoids broad B-cell inhibition



More convenient dosing

Enabled by half-life extension technology



Potential best-inclass clinical activity

Designed for superior potency and half-life with potential to maximize clinical remission



### Pipeline opportunities beyond IgAN



### Additional Jade pipeline programs are expected to focus on best-inclass product profiles in high-value I&I indications



I&I indications with significant market opportunity



Potential Best-inclass and bestin-indication product profile



Potential Rapid path to clinical PoC



Expected minimal competition



Jade team expertise

Team is evaluating additional opportunities to build pipeline of potentially best-in-class I&I therapies.



#### Jade Biosciences is developing transformative therapies for highvalue I&I indications

 Approximately \$300 million raised to date, including anticipated proceeds from an oversubscribed preclosing private financing, from syndicate of top tier healthcare investors, including:















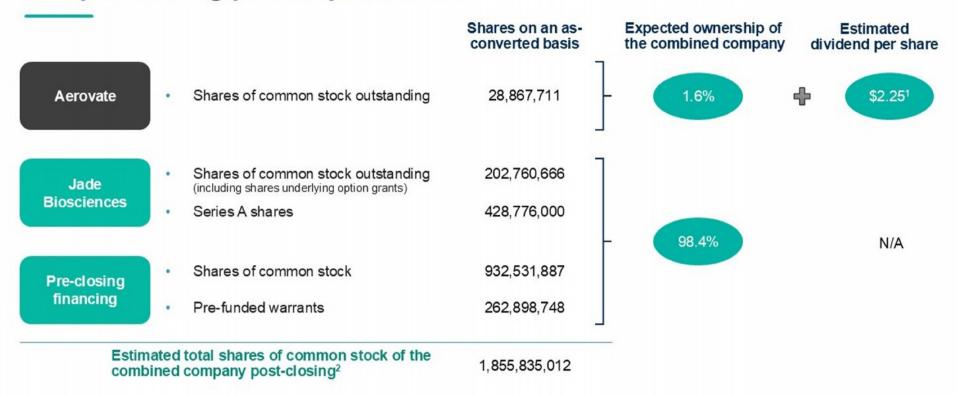




MOA	Program	Discovery	IND- enabling	Planned Clinical FIH	Planned Healthy Volunteer Data
anti-APRIL	JADE-001			2H25	1H26
Undisclosed	JADE-002			1H26	
Undisclosed	JADE-003			1H27	



### Estimated capitalization following close of transactions with Aerovate and pre-closing private placement





<sup>&</sup>lt;sup>1</sup> Prior to closing, Aerovate expects to declare a cash dividend to pre-merger Aerovate stockholders, distributing excess net cash estimated to be approximately \$65 million.

<sup>&</sup>lt;sup>2</sup> Please refer to AVTE's SEC filings for additional information, including the Registration Statement on Form S-4 that AVTE intends to file in connection with the transaction.

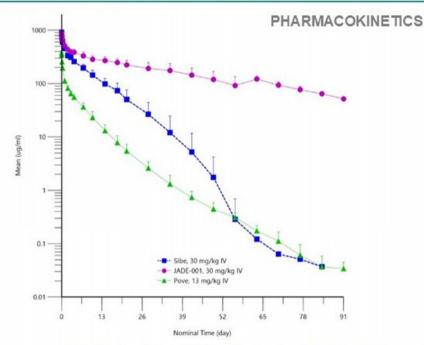
### Thank you

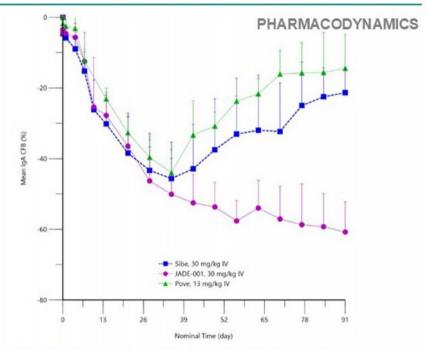


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Sources: Internal data