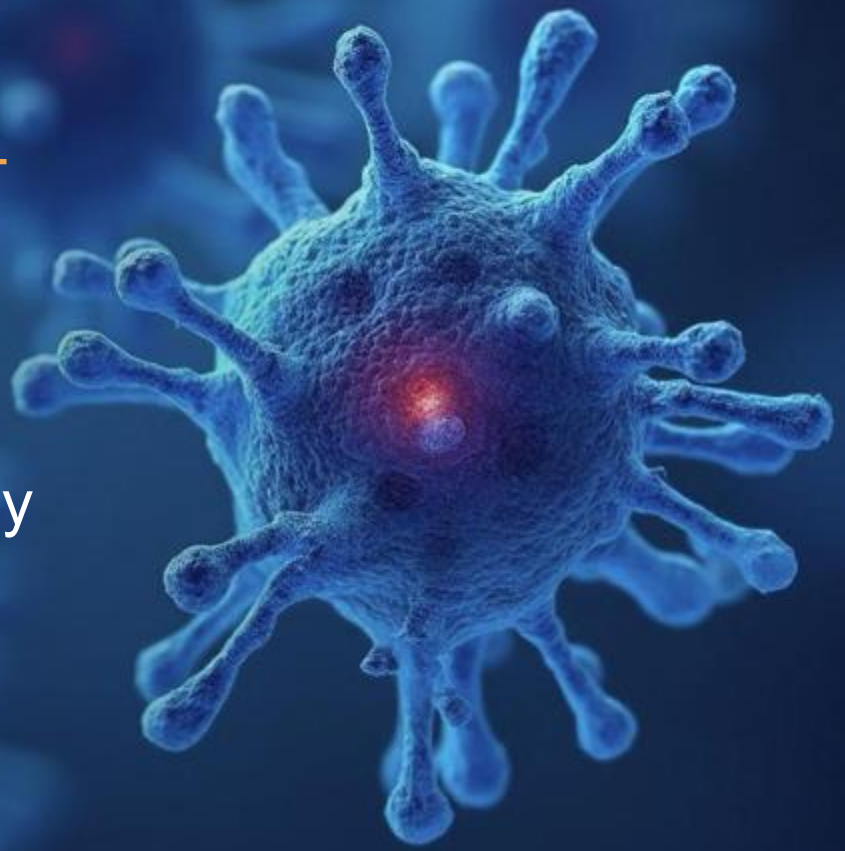
COYA THERAPEUTICS

Combating Neurodegeneration Via Treg Directed Combination Therapy



Investor Overview
April 2026

Cautionary Note of Forward-Looking Statements and Disclaimers in this Presentation

COYA THERAPEUTICS

This presentation and the accompanying oral presentation contain "forward-looking" statements that are based on our management's beliefs and assumptions and on information currently available to management. Forward-looking statements include all statements other than statements of historical fact contained in this presentation, including information concerning our current and future financial performance, business plans and objectives, current and future clinical and preclinical development activities, timing and success of our ongoing and planned clinical trials and related data, the timing of announcements, updates and results of our clinical trials and related data, our ability to obtain and maintain regulatory approval, the potential therapeutic benefits and economic value of our product candidates, competitive position, industry environment and potential market opportunities. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect," and similar expressions are intended to identify forward-looking statements.

Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors including, but not limited to, those related to risks associated with the success, cost and timing of our product candidate development activities and ongoing and planned clinical trials; our plans to develop and commercialize targeted therapeutics; the progress of patient enrollment and dosing in our preclinical or clinical trials; the ability of our product candidates to achieve applicable endpoints in the clinical trials; the safety profile of our product candidates; the potential for data from our clinical trials to support a marketing application, as well as the timing of these events; our ability to obtain funding for our operations; development and commercialization of our product candidates; the timing of and our ability to obtain and maintain regulatory approvals; the rate and degree of market acceptance and clinical utility of our product candidates; the size and growth potential of the markets for our product candidates, and our ability to serve those markets; our commercialization, marketing and manufacturing capabilities and strategy; future agreements with third parties in connection with the commercialization of our product candidates; our expectations regarding our ability to obtain and maintain intellectual property protection; our dependence on third party manufacturers; the success of competing therapies or products that are or may become available; our ability to attract and retain key scientific or management personnel; our ability to identify additional product candidates with significant commercial potential consistent with our commercial objectives; and our estimates regarding expenses, future revenue, capital requirements and needs for additional financing.

We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. Moreover, we operate in a very competitive and rapidly changing environment, and new risks may emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed herein may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Although our management believes that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances described in the forward-looking statements will be achieved or will occur. We undertake no obligation to publicly update any forward-looking statements, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

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Coya Therapeutics (COYA): Investment Highlights

Indications With High Unmet Need

- ALS, Frontotemporal Dementia (FTD), Alzheimer's Disease (AD)
- De-risked approach with regulatory flexibility

Novel Combination Therapies

- COYA 302 (ALS, FTD) and COYA 303 (AD) have differentiated approach targeting Treg dysfunction via combination therapies

Clinical Programs Ongoing

- COYA 302: ALSTARS Phase 2 study in ALS ongoing
- COYA 302: Phase 2 in FTD to commence in 2026

Value Creation - Compelling Market Opportunity

- COYA 302: Pipeline within a product > $10B Potential
- COYA 303- Potential to add value for existing GLP-1 RA's

Strong Partnership and Cash Position

- 2H 2027 estimated runway: ~$47 million as of Dec. 31, 2025
- Dr. Reddy’s partnership: royalties + up to ~$700M in potential milestones
- $10 million strategic investment from Dr. Reddy's (Jan. 2026)

Coya's Late Stage Neurodegenerative Pipeline

Product	IND-Enabling	Phase 1	Phase 2	Phase 3	Partner
COYA 302 Low Dose IL-2 + CTLA4-Ig	ALS (Amyotrophic Lateral Sclerosis)				Dr. Reddy's Labs (worldwide, excl. Japan & LatAm)
	FTD (Frontotemporal Dementia)				Coya retains worldwide rights
COYA 303 Low Dose IL-2 + GLP-1 RA	Alzheimer's Disease				Coya retains worldwide rights
COYA 201 *Allogeneic Treg Derived Exosomes*	Undisclosed				Coya retains worldwide rights
COYA 206 *Antigen-Directed Treg Exosomes*	Undisclosed				Coya retains worldwide rights

Key Catalysts and Milestones

COYA 302 in ALS: ALSTARS (Phase 2)	• Complete enrollment: expected 2H 2026 • Top-line data: expected 1Q 2027 • Management to provide periodic updates
COYA 302 in FTD:	• Acceptance of IND: accepted 1Q 2026 • initiate Phase 2a study: expected 2H 2026
Translational Datasets	• Present further translational and clinical datasets across Coya programs Including biomarker, proteomics, and single-cell data • Further elucidate role of Tregs in neuroinflammation and neurodegeneration • Provide additional insight into target engagement, pathway modulation, and patient-level biology:
COYA 303 in Alzheimer's	• Evaluate path forward: mid-2026 • Evaluate emerging clinical data EVOKE/EVOKE+ to inform R&D strategy

Pipeline > $10B Opportunity in ALS, FTD, AD & PD

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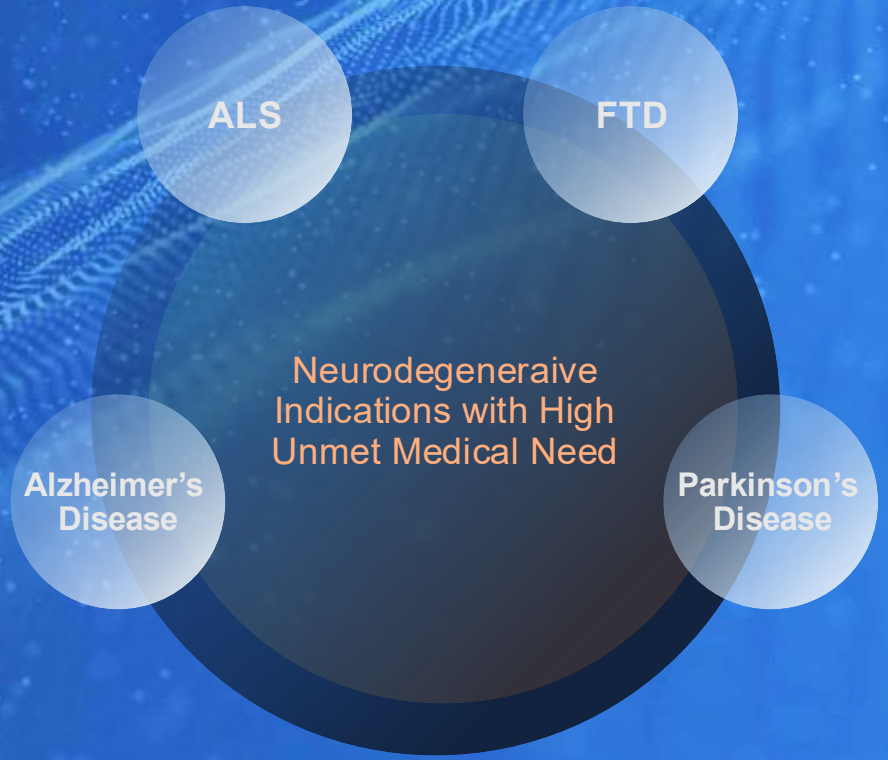
COYA 302: ALS and FTD

- High unmet need
- Orphan indications
- Flexible & fast path to market
- > $5Bn market

COYA 303: Alzheimer's Disease

- One of the most common neurodegenerative diseases
- High unmet need despite approved therapies
- > $5Bn market



LD IL-2 Combination Therapy: 3 Pillars For Success

The neurodegeneration field increasingly recognizes combination-based therapeutic strategies such as Coya's as a viable path forward for diseases driven by complex, multifactorial biology

Validated Science

- Nobel Prize–Recognized for discovery & role of Treg Biology(1)
- Well-established association between Treg Dysfunction and ALS/FTD(2)
- Independent scientific support of Coya's approach in ALS(3)

Differentiated Combination-based Therapeutic Approach

- Combination therapy increase likelihood of success
- Endorsed by external thought leaders (KOLs, ADDF, CTAD)
- Well-established therapeutics (low-dose IL-2 & Abatacept)
- Low-dose IL-2 used at ~50x lower doses vs standard IL-2 dosing
- CTLA4-Ig's safety and efficacy established in millions of patients

Early Clinical Validation

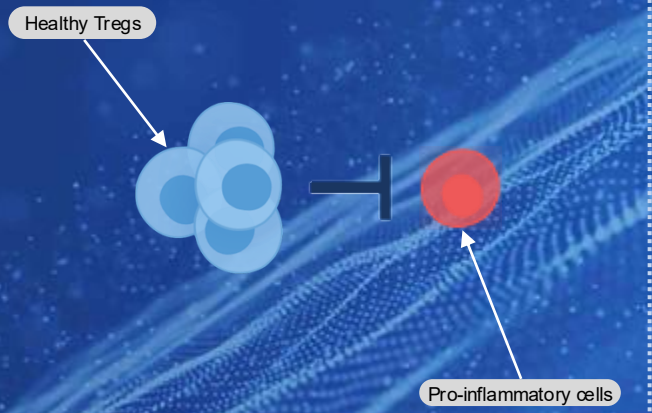
- Combination therapy restores and maintains Treg function
- Stabilization of disease progression in ALS & FTD
- Potential for combo therapies to alter disease trajectory
  - ➢ ALS IIT: no ALSFR-S decline at 6 months, minimal decline at 1 year
  - ➢ FTD IIT: cognitive stability at 6 months

1. Bluestone, The 2025 Nobel Prize in Physiology or Medicine — a bridge to peripheral immune tolerance, Journal of Clinical Investigation, 2025
2. Appel et al, ALS patients' regulatory T lymphocytes are dysfunctional, and correlate with disease progression rate and severity, JCI Insight, 2027
3. Sete et al, Autoimmune response to C9orf 72 protein in amyotrophic lateral sclerosis, Nature, November 2025

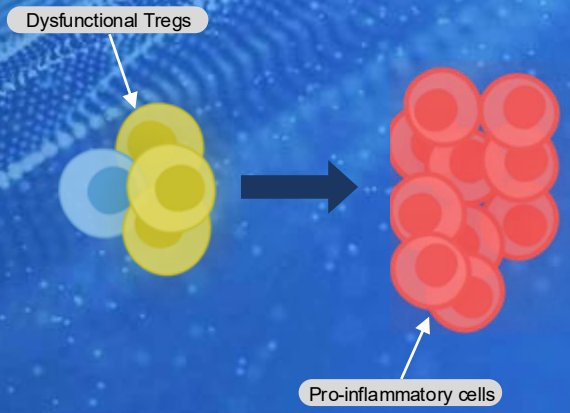
Treg Focused Pipeline: Critical Role in Inflammation

By helping functional regulatory T cells (Tregs) maintain immune balance, Coya combinations restrain chronic inflammation and limit pathways that drive inflammation, thereby potentially treating neuro-degeneration

Healthy Treg cells keep pro-inflammatory cells in check



Dysfunctional Tregs exacerbate chronic inflammatory signaling



Tregs (Regulatory T Cells)

- Specialized immune cells that help maintain a balanced immune system
- Restrain chronic inflammation
- Limit pathways that drive neuroinflammation

Treg Dysfunction & Disease lead to:

- Immune activation and chronic inflammation
- Chronic inflammation leads to autoimmune pathology
- Autoimmune pathology leads to neuro-degenerative disease

Coya combinations treat neuro-degenerative disease:

- COYA 302 & COYA 303 target immune pathways that drive neuro-degeneration
- Enhancing Tregs restores immune balance and blocks the pro-inflammatory mechanisms that impair Tregs
- This can potentially treat underlying neurodegeneration

Treg Imbalance Leads to Neuroinflammation…

… And neuroinflammation leads to neurodegeneration, which drives disease progression



Rebalancing Treg Leads to Improved Clinical Outcomes

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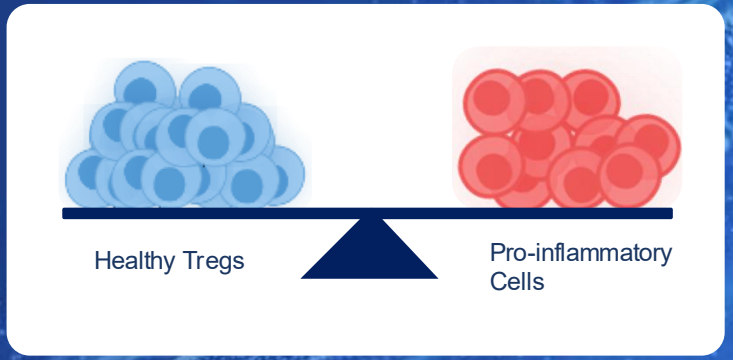
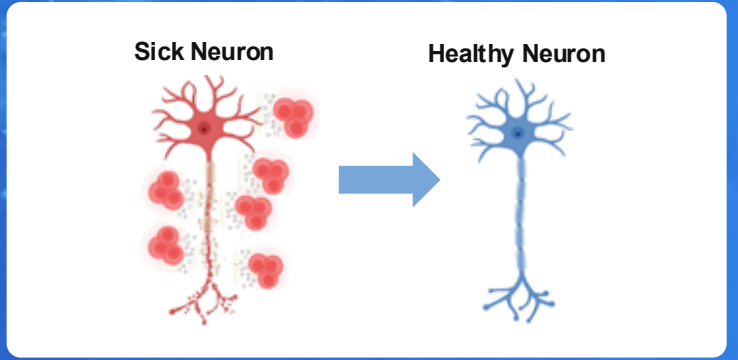
Coya combination therapies:

- *Restore and enhance Tregs function, numbers, and survival*
- *Mechanistically reduces chronic neuroinflammation due to immune dysregulation*
- *Drive improved disease outcomes in neurodegenerative and autoimmune disease*



Restoring and enhancing Tregs re-establishes immune balance and improves disease outcomes



COYA THERAPEUTICS

COYA 302 in ALS & FTD

Proprietary, Recombinant Human
Low Dose Interleukin-2 (LD rhIL-2)
and CTLA4-Ig



COYA 302 in ALS and FTD

ALS and Frontotemporal Dementia

- High unmet need
- Relatively short life expectancy from time of diagnosis
- Significant loss of QoL
- Orphan diseases
- Flexible and fast paths to regulatory approval
- ALS: ~33,000 patients in U.S. (NIH)
- FTD: 50,000-60,000 patients in U.S. (Alzheimer's Association)

COYA 302

- Proprietary combination (co-administered)
- Recombinant Human Low Dose Interleukin-2 (LD rhIL-2) and CTLA4-Ig
- Strong IP through 2040's

Dr. Reddy Partnership

- Global rights to ALS in U.S. and Europe excluding Japan & LATAM
- Up to ~$700 million in R&D, regulatory, and sales milestones, mid-digits royalties
- $10 million strategic investment (Jan. 2026)

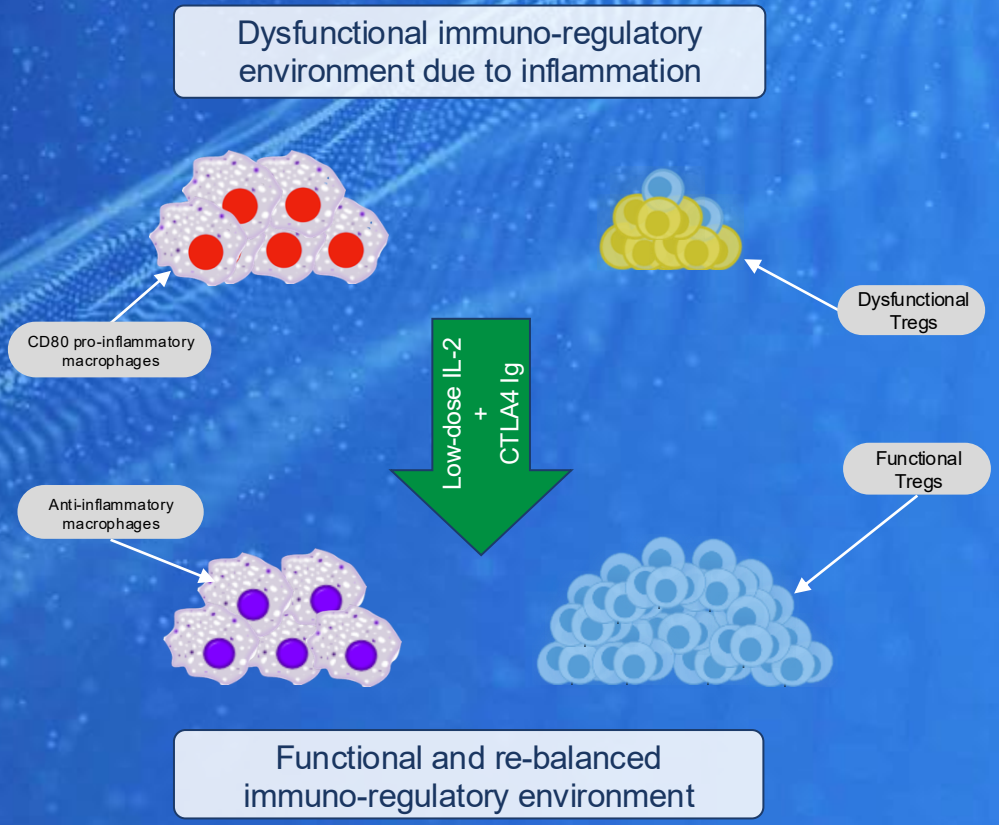
ADDF Partnership

- $5M Investment to support Phase 2 trial in FTD

COYA 302: Combo Therapies Enhance Treg Function

Restoring Immune Regulation via Combination Therapy

- Inflammation creates a dysfunctional immuno-regulatory environment
  - Tregs are dysregulated and dysfunctional
- CTLA-4 Ig + low-dose IL-2 combination acts synergistically to expand dysfunctional Tregs and shift them to functional state
- The combination restores immune suppressive function and shifts myeloid cells toward an anti-inflammatory phenotype
- The result is re-balanced immune homeostasis, which leads to neuro-protection against neuro-degenerative disease



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COYA 302 in ALS



Current ALS Therapies aim to slow disease progression

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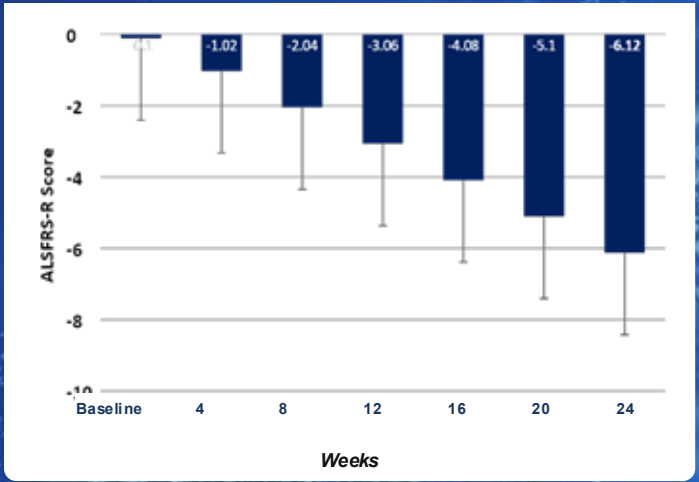
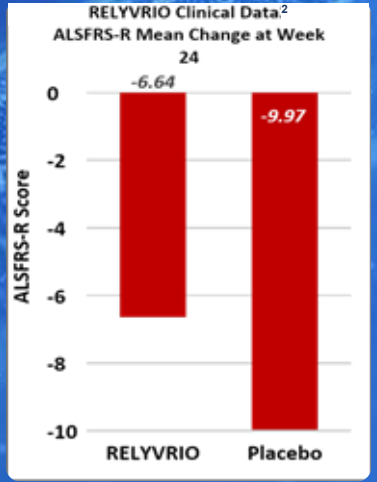
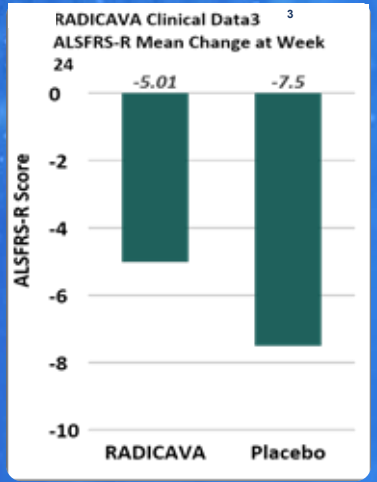
PRO-ACT ALS Database Mean (SD) Documented Decline (ALSFRS-R)



Many companies have garnered significant value by demonstrating a *limited*` benefit of slowing the rate of ALS progression





ALS patients average rate of decline is ~1 point/month in ALSFRS-R score[1]

1. The PRO-ACT database is the largest ALS data repository (Atassi et al, 2014)
2. Relyvrio US Prescribing Information (9/2022)
3. Radicava US Prescribing Information (5/2022)

LD IL-2 + CTLA4-Ig IIT: Signal in Mild-to-Moderate ALS

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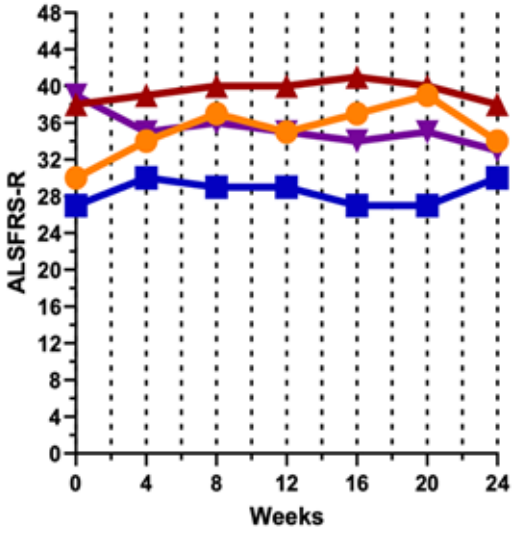
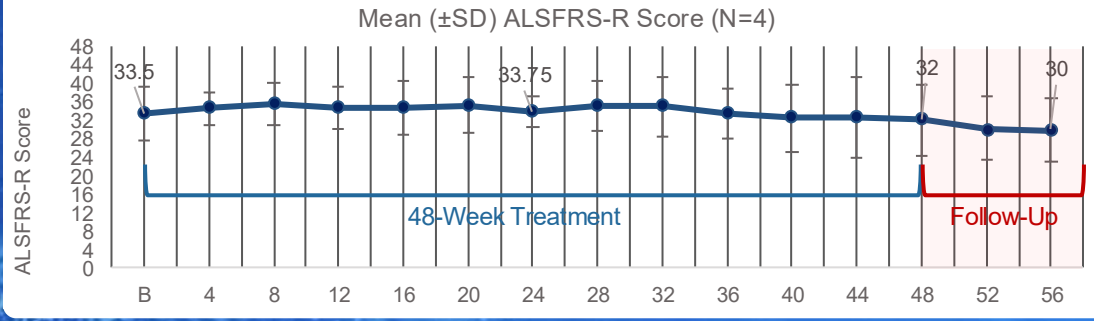
ALSFRS-R improved or stabilized over 6 months



Participant 1: +4 points
Participant 2: +3 points
Participant 3: Stable
Participant 4: -6 points (declined at month 1 and remained stable thereafter)

CTLA-4 Ig + LD IL-2 ameliorates progression in a 48 week IST in ALS Patients



Investigator Initiated Trial with LD IL-2 and CTLA4 Ig

- 4 mild-to-moderate ALS patients
- Low-dose IL-2 + CTLA4 Ig led to stable or improved ALSFRS-R Scores
- Ameliorate ALS progression over 48 weeks
- Well tolerated over 48 weeks (the most common AE mild was ISR)
- All patients completed the study
- No deaths or serious AEs (SAEs)

Thonhoff et al. A Phase 1 Proof-of-Concept Study Evaluating Safety, Tolerability, and Biological Marker Responses with combination therapy of CTLA4-Ig and Interleukin-2 in Amyotrophic Lateral Sclerosis. Frontiers in Neurology, 2024. In press.

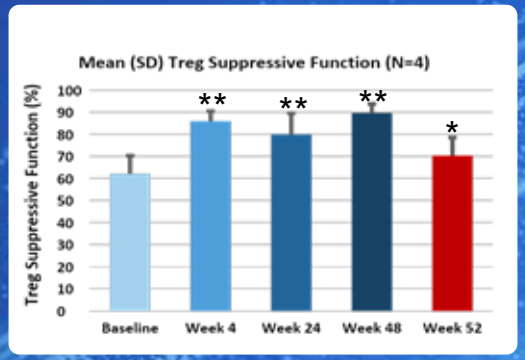
LD IL-2+CTLA4 Ig: Restored Treg Suppressive Function

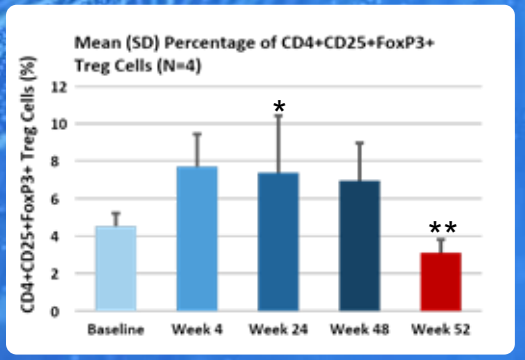
LD IL-2 + CTLA4 Ig combination is synergistic and effective

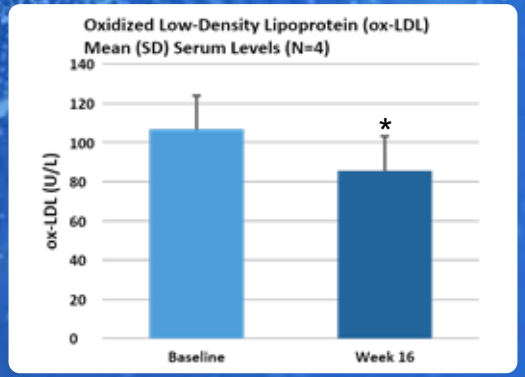
LD IL-2 + CTLA4-Ig

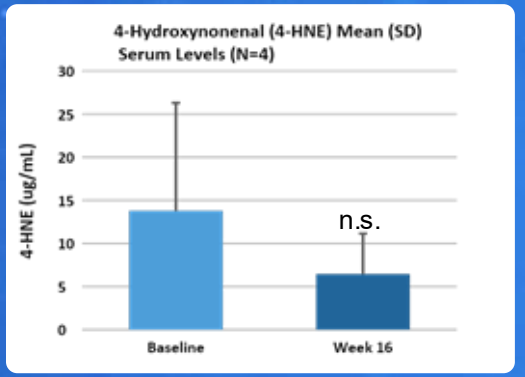
- **Significantly expanded Treg suppressive function** as early as week 4
- Maintained a significantly increased Treg function
- **Increased Treg numbers** as early as week 4
- Maintained higher number of Tregs over the course of treatment
- Enhanced suppression of macrophage-mediated oxidative stress and proinflammatory cytokine biomarkers over 48 weeks

n.s.: not significant (paired t test)
**p <0.05*
*** p <0.01 (paired t test)*









COYA 302: ALSTARS Phase 2 Study in ALS Ongoing

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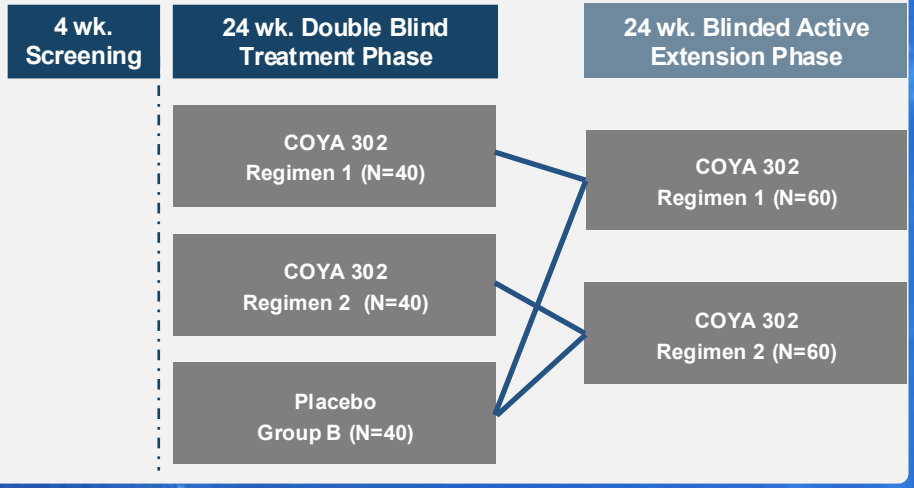
Key Inclusion Criteria

- Diagnosis of sporadic or familial ALS
- ALSFR-R score ≥ 35 at Screening
- Slow vital capacity (SVC) ≥ 70% of predicted capacity for age, height, and gender at Screening
- Documented disease progression between -0.5 and -1.5 points per month on ALSFR-R total score

Randomized, Double-Blind, Placebo-Controlled Phase 2 Study with Blinded Active Extension



- Trial is active and enrolling patients
- Complete enrollment: expected 2H 2026
- Top-line data: expected 1Q 2027

Primary Endpoint

Change in disease severity over time measured by ALSFRS-R total score from baseline to Week 24 vs. placebo

Study Objectives

1. Efficacy
2. Safety and Tolerability
3. Biological Activity
4. Biomarker levels

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COYA 302 in FTD



LD IL-2 & CTLA-4 Ig: Signal in Mild-to-Moderate FTD

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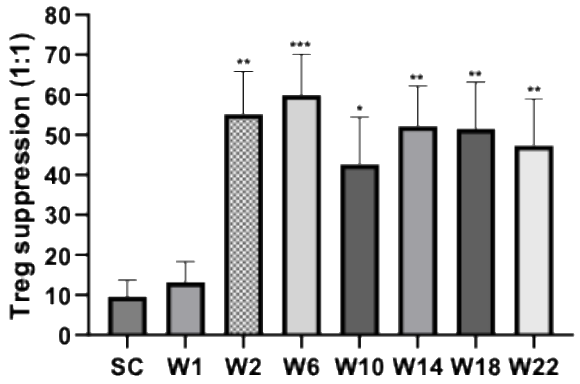
Encouraging clinical data in FTD in Investigator Sponsored Study

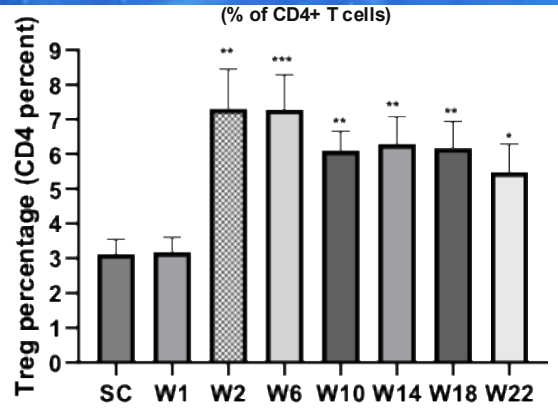
- Treg suppressive function and percentage:
  - Increased after first treatment
  - Remained elevated across 22-week treatment period

Increased Treg Suppressive Function



*<0.05
**<0.01
***<0.001
****<0.0001

Expansion of Treg Percentage



LD IL-2 & CTLA-4 Ig: Signal in FTD – cont.

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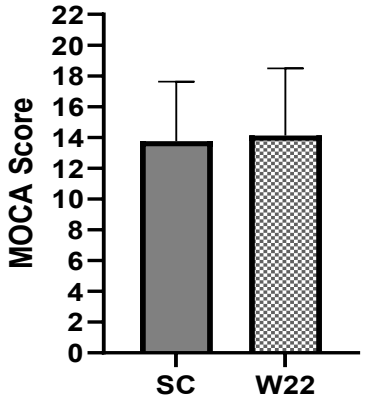
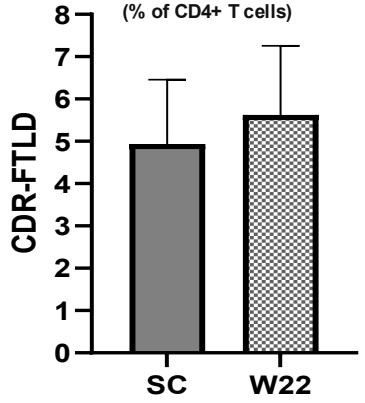
Cognitive Stability in 22-Week Investigator Sponsored Study

- CDR-FTLD, MoCA, PASS cognitive tests exhibited no cognitive decline at end of study compared with baseline

Moca Scores Remains Unchanged Compared to Baseline



CDR-FTLD Scores Remains Unchanged Compared to Baseline



COYA-302 in FTD: Phase 2a Expected 2Q 2026 Start

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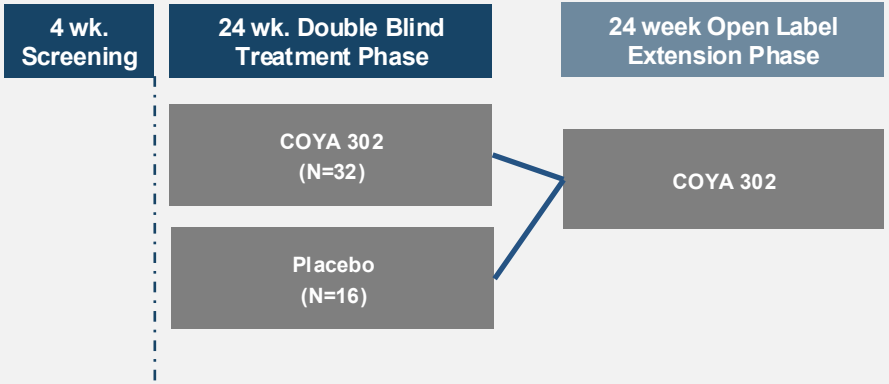
Key Inclusion Criteria

- Non-Fluent Primary Progressive Aphasia Subtype
- Global Clinical Dementia Rating - Frontotemporal Lobar Degeneration (CDR® plus NACC FTLD) score of 0.5, 1 or 2

Randomized, Double-Blind, Placebo-Controlled Phase 2a Study with Open Label Extension



- Study initiation: expected 2H 2026

Primary Endpoint

- Safety and tolerability

Clinical Efficacy Endpoints

- CDR+NACC-FTLD-SB*
- Neuropsychological tests

Biomarkers

- Plasma Glial Fibrillary Acidic Protein (GFAP)
- Inflammatory cytokines
- NfL

* CDR® Dementia Staging Instrument PLUS National Alzheimer's Coordinating Center (NACC) Behavior and Language Domains for FTLD - sum of boxes

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COYA 301

Proprietary Low Dose
Recombinant Human IL-2



LD IL-2 Monotherapy in AD: Exciting Phase I POC

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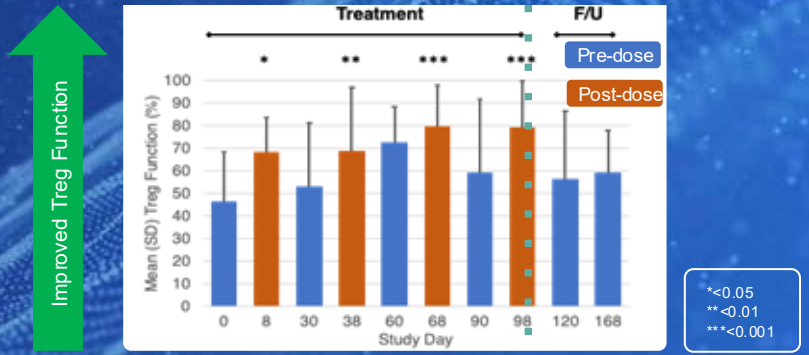
LD IL-2 monotherapy works in Alzheimer's

- Enhanced Treg function and numbers
- Stabilized cognitive decline

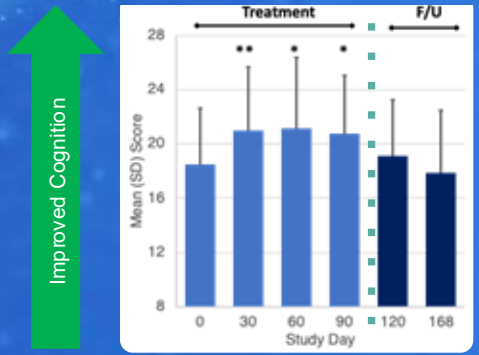
Combination with GLP-1 receptor agonist offers:

- Enhanced clinical benefit
- Synergistic advantage over monotherapy
- Validation of low-dose IL-2 therapy as backbone therapy

Enhances Treg Suppressive Function



MMSE Score (n=8)



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COYA 303 in Alzheimer's

Proprietary, Recombinant Human
Low Dose Interleukin-2 (LD rhIL-2)
and GLP-1 RA



COYA 303 in Alzheimer's Disease

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Alzheimer's Disease

- High unmet need
- Significant loss in QoL
- >7 million patients in U.S.

COYA 303

- Proprietary combination (co-administered)
- Recombinant Human Low Dose Interleukin-2 (LD rhIL-2) and GLP-1 receptor agonist
- IP through 2040's

Strong scientific rationale

- Proof-of-concept in neuro-degenerative diseases
- Combinations increase efficacy, durability, stable disease; lower individual doses, and improve tolerability & safety
- Preclinical POC in-vitro and LPS mouse model

Competitive landscape

- Combinations expand efficacy, safety, indications of existing and developmental products
- Expands IP exclusivity

COYA 303 in Alzheimer's: Compelling Preclinical Signal

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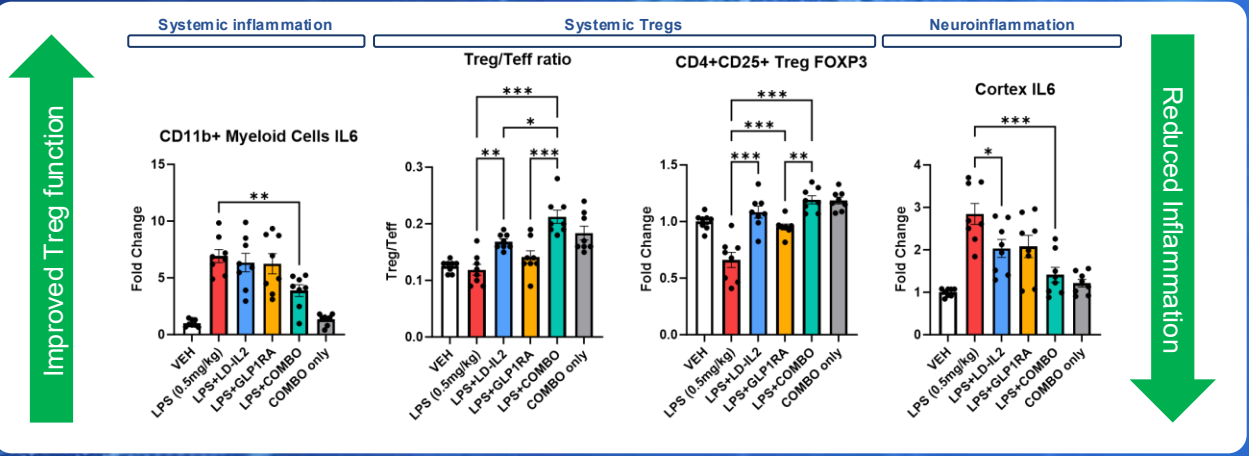
Encouraging in-vitro and in LPS mouse model

- Lipopolysaccharide (LPS) mouse model is well-characterized of systemic and neuro-inflammation
- COYA 303 decreased both periphery inflammation and in neuro-inflammation
- Mechanistic synergy: complementary effects on Treg enhancement and myeloid-driven inflammation
- Pre-IND meeting with FDA mid-2026



COYA-303:

- Reduced peripheral pro-inflammatory cell expansion
- Enhanced Treg function
- Attenuated CNS inflammation
- Shifted macrophages to an anti-inflammatory phenotype
- Decreased neuroinflammation

COYA THERAPEUTICS

Leadership

- Management
- Scientific Advisory Board
- Board of Directors



Management



Arun Swaminathan, Ph.D.
Chief Executive Officer

- Bristol Myers Squibb
- Actinium
- Covance
- Alteogen
- Lynkogen



Fred Grossman, D.O., FAPA
President & Chief Medical Officer

- Johnson-Johnson
- Sunovion
- Bristol Myers Squibb
- Mesoblast
- Eli Lilly
- Glenmark



David Snyder
Chief Financial Officer & Chief Operating Officer

- DisperSol Technologies
- Exicure
- Cellular Dynamics International
- Roche NimbleGen

Experienced Development Team

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Michelle Frazier, Ph.D.
Senior Vice President of Regulatory Affairs

- Revance Therapeutics
- CytomX
- FDA
- Coherus BioSciences



Karen King, MS
Management and Clinical Operations

- Recursion
- MacroGenics
- Supernus
- Shire
- MedImmune



Daniel Barvin, M.B.A
Vice President of Operations & Patient Advocacy

- End The Legacy: Genetic ALS & FTD
- I AM ALS
- Morgan Stanley

Scientific Advisors Board



Shimon Sakaguchi, M.D., Ph.D.
Member of the National Academy of Sciences

- Nobel Prize for discovery & role of Treg Biology
- Distinguished Professor at the World Premier International Research Institute - Immunology Frontier Research Center at Osaka University



Clive Svendsen, Ph.D.
Director, Cedars-Sinai Regenerative Medicine Institute

- Professor in Residence at UCLA
- Consulting Professor at Stanford University
- Renowned expert on stem cell biology and regenerative therapeutic approaches



Malcolm Brenner, M.D., Ph.D.
Director, Center for Cell and Gene Therapy

- Professor, Baylor College of Medicine
- Dedicated career to the field of stem cell transplantation through the therapeutic use of T cell immunologic approaches



Stanley Appel, M.D.
Co-Director, Houston Methodist Neurological Institute

- For more than 50 years, Dr. Appel has devoted his life to finding solutions for people living with ALS
- Pioneered role of Tregs in Neurodegeneration

Board of Directors

COYA THERAPEUTICS



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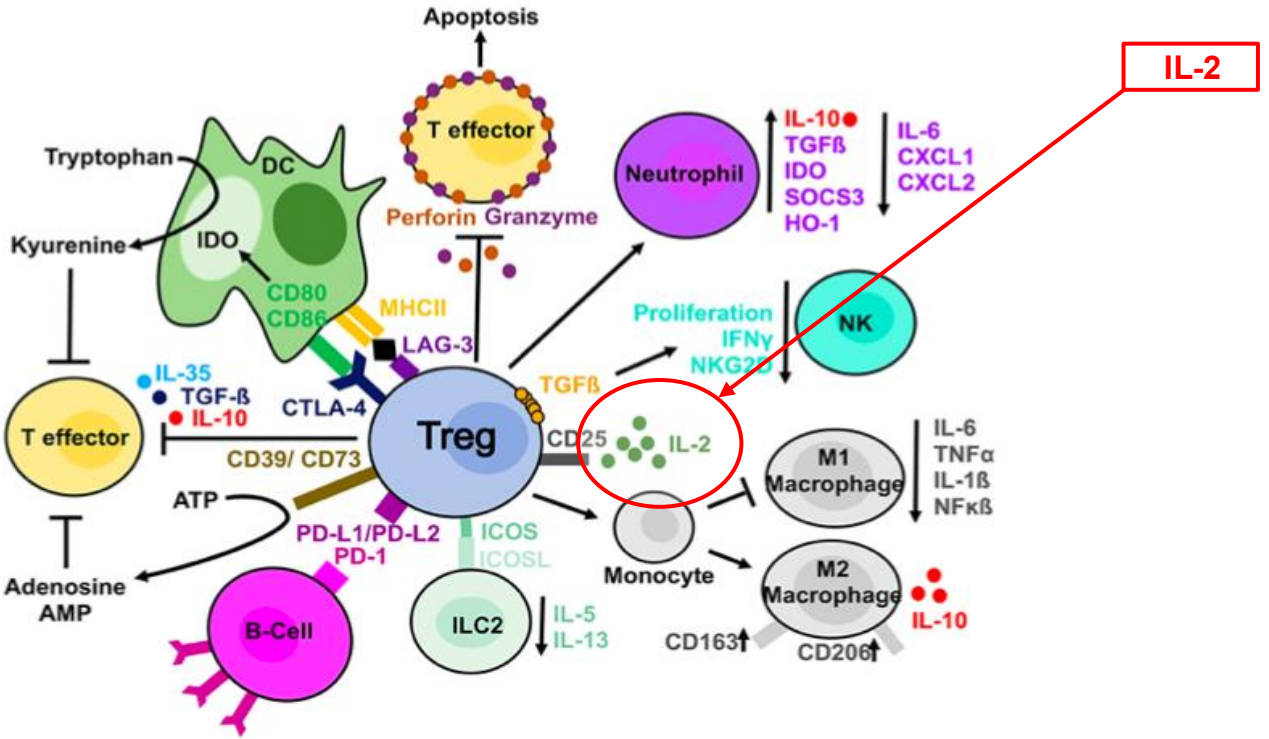
Former Chairman and CEO
Bayer Pharma, AG

COYA THERAPEUTICS

Appendix



IL-2 is Essential in Treg Biology



Romano et al., Frontiers in Neurology, 31 January 2019 doi: 10.3389/fimmu.2019.00043

LD IL-2 + CTLA4-Ig Investigator Initiated Trial

Open-Label, Single-Arm PoC Clinical Study in ALS Patients (N=4)

Screening

20 weeks

Screening Assessments

- ✓ Clinical Labs
- ✓ ALSFRS-R Score
- ✓ Electrocardiogram (ECG)
- ✓ Physical & Neurological Exam

Study patients had well-documented disease progression prior to treatment (-1.1 points/month prior to treatment with COYA 302)

Treatment Period

***LD IL-2 + CTLA4-Ig** was administered via subcutaneous injection over 48 weeks*

Treatment Period Assessments

- ✓ Safety and Tolerability
- ✓ Treg Function and Numbers
- ✓ Serum Biomarkers
- ✓ ALSFRS-R Score

Follow-Up

8 weeks

Post-Treatment Assessments

- ✓ Safety and Tolerability
- ✓ Treg Function & Numbers
- ✓ Serum Biomarkers
- ✓ ALSFRS-R Score

Safety and tolerability assessments included reported adverse events, periodic physical and neurological exams, clinical labs, and ECGs

** Conducted using commercially available products*

LD IL-2 + CTLA4-Ig Investigator Initiated Trial – cont.

COYA THERAPEUTICS

Baseline Characteristics

	Age (years)	Sex	Type	Onset	ALS Progression Prior to Baseline (ALSFRS-R score)	Respiratory Status	Respiratory Support
Patient 1	47	Female	Familial	Limb	-1.6 points / month	No Respiratory Insufficiency	None
Patient 2	54	Male	Sporadic	Limb	-1 points / month	Respiratory Insufficiency	Non-invasive Ventilation
Patient 3	57	Female	Sporadic	Bulbar	-1 point / month	Respiratory Insufficiency	Non-invasive Ventilation
Patient 4	84	Female	Sporadic	Bulbar	-0.7 points / month	Respiratory Insufficiency	None