



TRanslational Initiative to DE-risk NeuroTherapeutics

Who We Are

The TRanslational Initiative to DE-risk NeuroTherapeutics (TRIDENT) is a first-of-its-kind revolutionary preclinical testing platform for neurodegenerative diseases that redefines how therapies are evaluated before clinical trials.

One Platform. Multiple Models. Faithfully Modeling Human Disease.

TRIDENT unifies iPSCs, organoids, and humanized mice and marmosets for cross-species modeling, facilitating translatable, high-confidence therapeutic testing.

Clinically Aligned. Translational By Design.

TRIDENT mirrors clinical standards across touchscreen cognition, imaging, and molecular biomarkers to deliver preclinical data you can trust to translate.

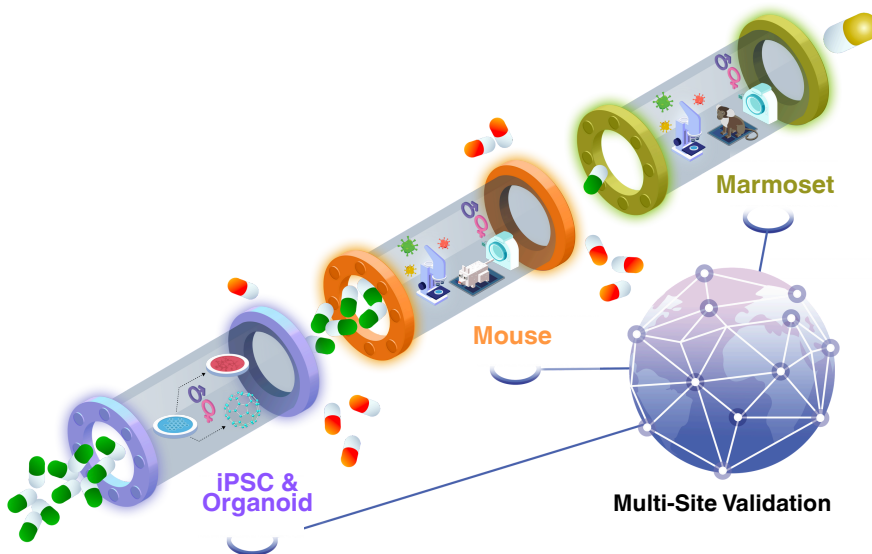
De-risk Early. Invest Strategically. Succeed Faster.

TRIDENT will enable early, informed choices — helping biopharma advance the most promising therapies while minimizing delays, costs, and failure.

Transforming Preclinical Trials. Advancing Real-World Impact.

TRIDENT is reshaping preclinical trials to raise the standard for efficacy, paving the way for effective therapies to reach patients sooner.

TRIDENT Preclinical Trials



Funded By



What We Do Differently

De-Risking Therapeutics With TRIDENT Trials

TRIDENT integrates human-derived iPSCs and organoids, and newly developed humanized mouse and marmoset models to enable **matched, cross-species modeling of brain diseases**.

We standardize:

- **Cognition as a preclinical endpoint**, using human-relevant touchscreen tasks similar to those used to assess patients in clinics, ensuring translatable and meaningful readouts.
- **Brain imaging**, aligned with clinical trial protocols, to evaluate therapeutic efficacy and detect adverse effects.
- **Whole-brain pathology**, to track molecular biomarkers and uncover disease and treatment mechanisms.
- **Sex-Based Analysis Plus (SBA+)**, integrated across all models to identify sex-specific efficacy and safety profiles.
- **Open science and multi-site validation**, which enhances transparency, reproducibility, and generalizability across diverse research environments.

TRIDENT's unique, robust, and standardized approach maximizes predictive validity, **transforming preclinical trials from a bottleneck into a launchpad for clinical translation**.

Alliance of Renowned Neuroscience Leaders



camh | womenmind



Contact Us



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TRIDENT

Development & Validation Roadmap

Establish TRIDENT Workflow

- Biomarkers
 - Cognition
 - Imaging
 - Molecular

Develop Humanized Models

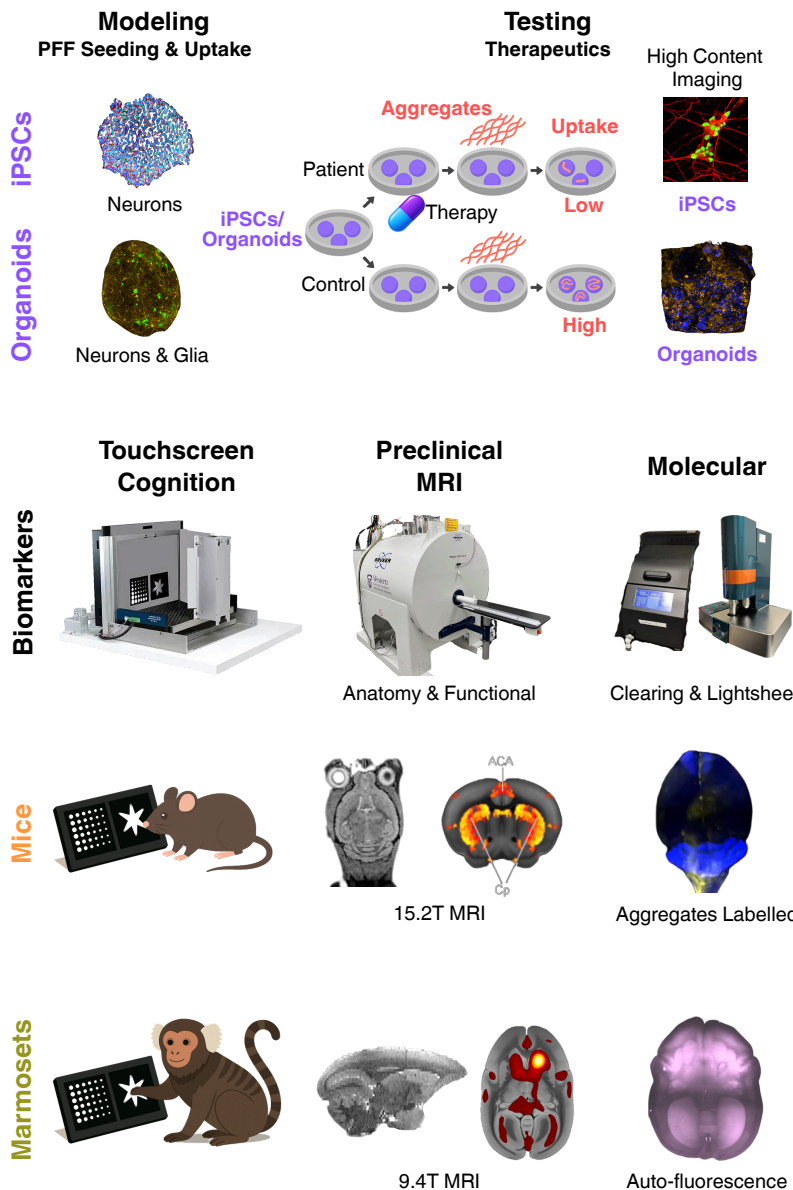
- alpha-synucleinopathies
- Alzheimer's Disease

Validate TRIDENT Concept

- Known therapies
 - Failed
 - Passed
- New therapies

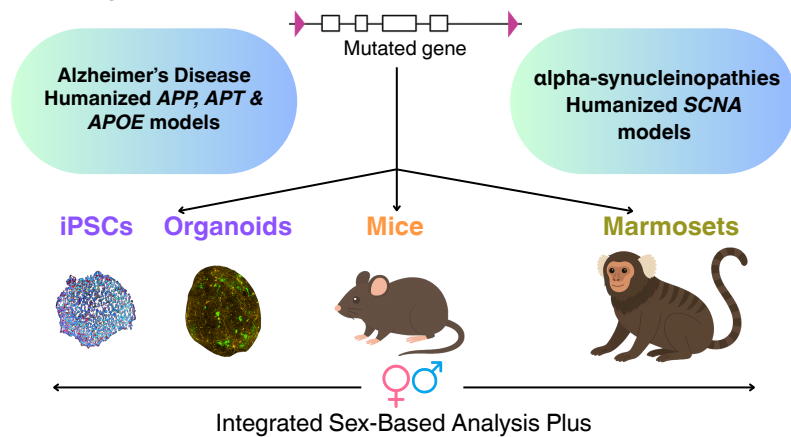
TRIDENT Preclinical Trials Platform

TRIDENT Workflow Is Being Established In All Models



Humanized Models Are Being Developed

Same genetic mutations are modelled across models and species



TRIDENT Concept Is Being Validated

Failed in clinical trials
Does it fail in TRIDENT trials faster?

Clinically promising therapies
Do they clear TRIDENT trials as well?

New therapies
TRIDENT facilitates translational data-driven go/no-go decisions.

alpha-synucleinopathies

- Known
 - Mouse Version of Cinpanemab
 - PU-AD
- New
 - Vaccine

Alzheimer's Disease

- Known
 - Mouse Version of Lecanemab
- New
 - Vaccine
 - C-31

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