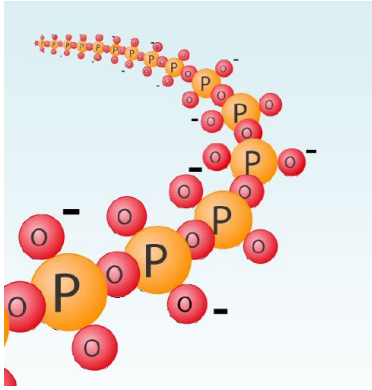




*Providing superior treatments for all  
forms of bleeding*

# Company Vision: Leading Biotech Focused on the Treatment of Bleeding Disorders



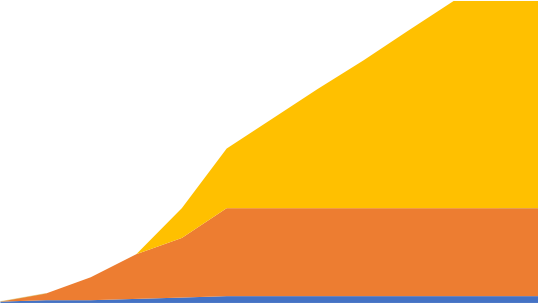
.....  
**FIRST IN CLASS**

**SYSTEMIC**

**CLOTTING ACCELERANT**



.....  
**QUICK PATH TO MARKET**



.....  
**MULTIPLE INDICATIONS**

# CAY001 Has Potential as a Universal Agent to Treat Multiple Causes of Uncontrolled Bleeding

## Congenital Clotting Factor Dysfunction

Hemophilia

## Drug Clotting Factor Dysfunction

- Coumadin
- FXa
- Direct Thrombin inhibitors

## Platelet Dysfunction (5 MM)

- Antiplatelet drugs (Plavix)
- Congenital platelet dysfunction
- Thrombocytopenia

## Saturated Market

- 5 drugs approved
- Limited effectiveness
- Safety issues

## Platelet transfusion

- 44 % Ineffective (Plavix)
- Antigenic (Disorders)
- Limited supply

CAY001 has potential to work across all types of bleeding dysfunction

**INITIAL FOCUS ON PLATELET DISORDERS**

# Polyphosphate (PolyP) is a Critical Driver of the Clotting Response. CAY001 is an IV formulation of PolyP

## What is PolyP?

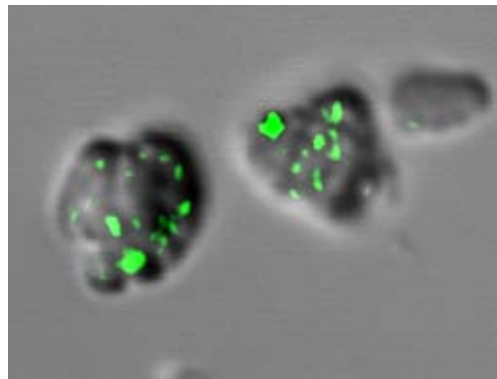
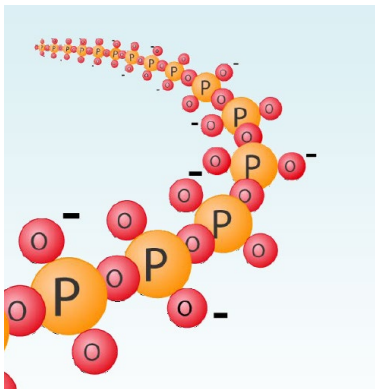
- Produced by platelets
- Accelerates clotting
- Unsuccessful hemophilia drug



## What is CAY001?

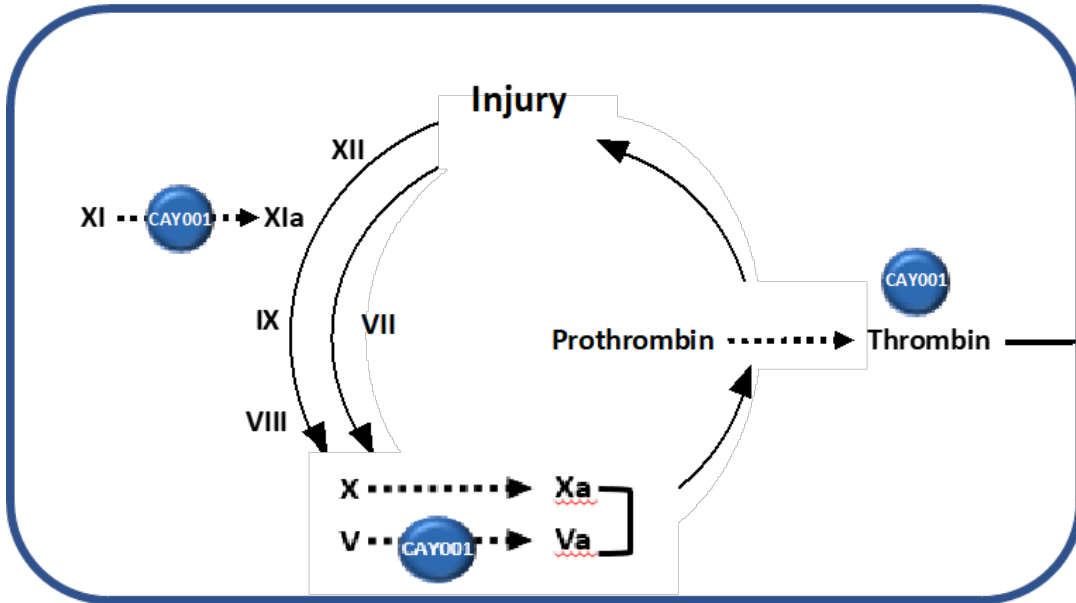
Silica-based nanoparticle (SNP) that improves delivery of PolyP

- Increase half-life
- Lower dose
- IP protection through 2034 (issued patents)

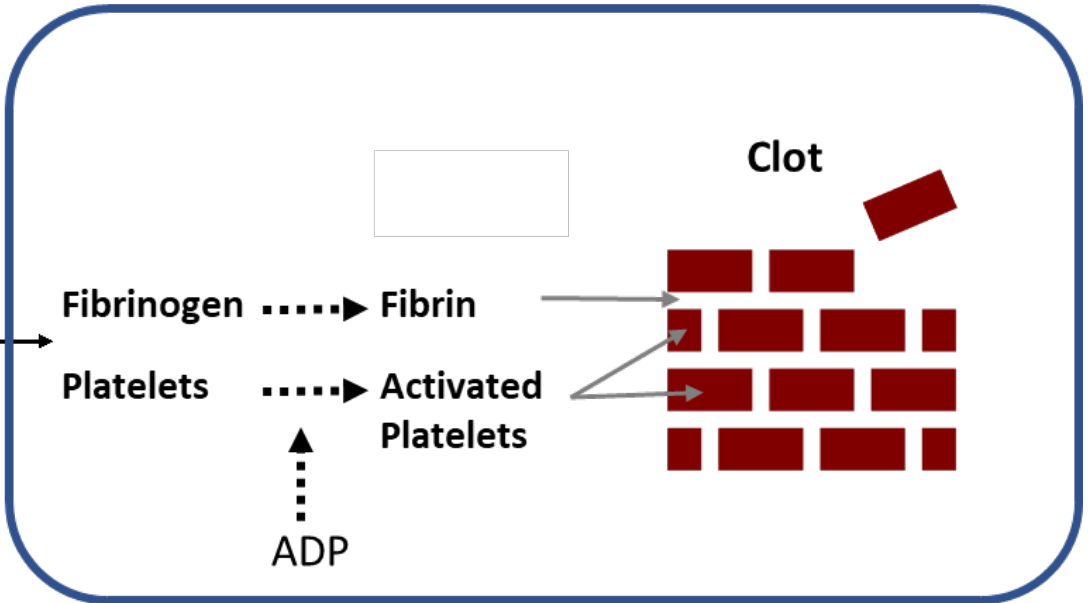


# PolyP Accelerates *But Does Not Increase* Clotting and Can Overcome Platelet Dysfunction

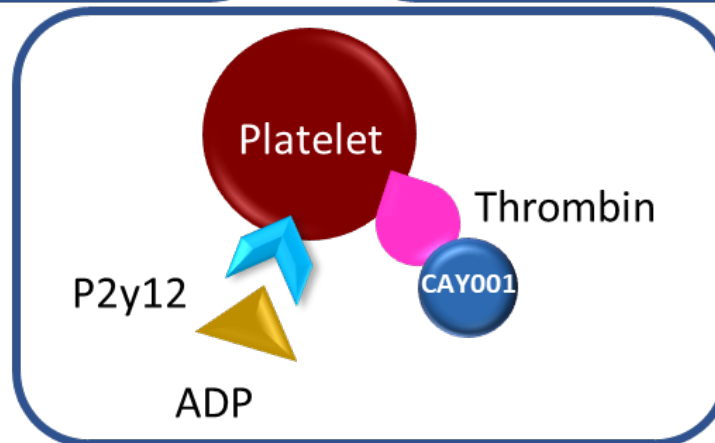
## Initiation and Amplification of Clotting



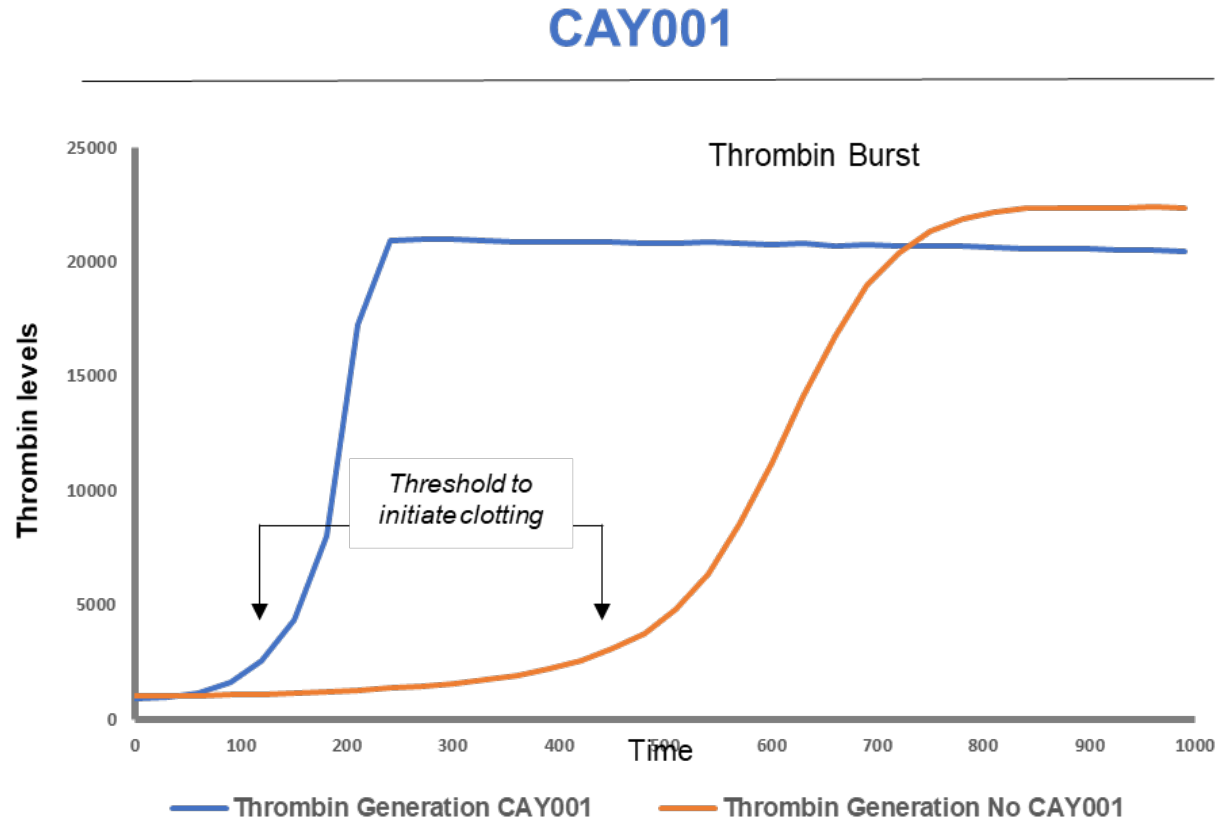
## Clot Formation



## Platelet Function



# CAY001 Accelerates Thrombin Generation 4X. No Increase in the Amount of Thrombin Produced

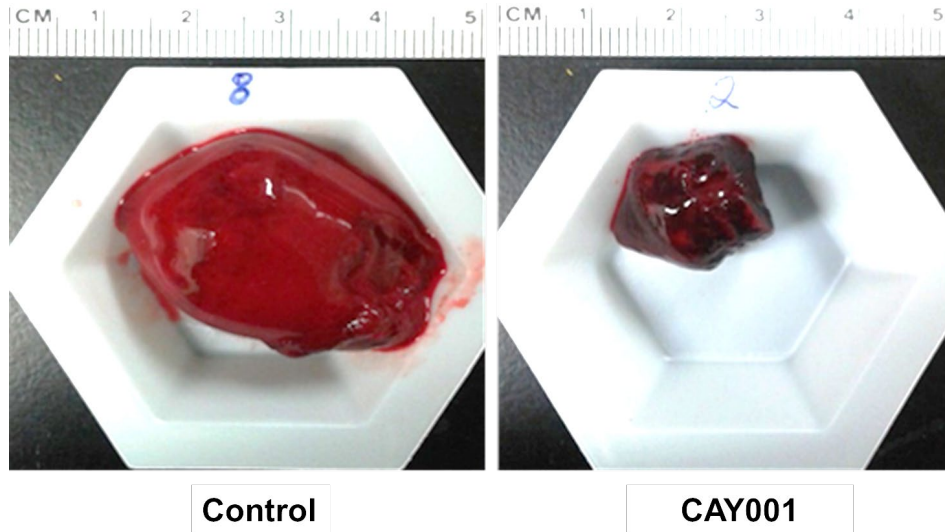


Angew.Chem. Int. Ed. 2015, 54,4018 –4022

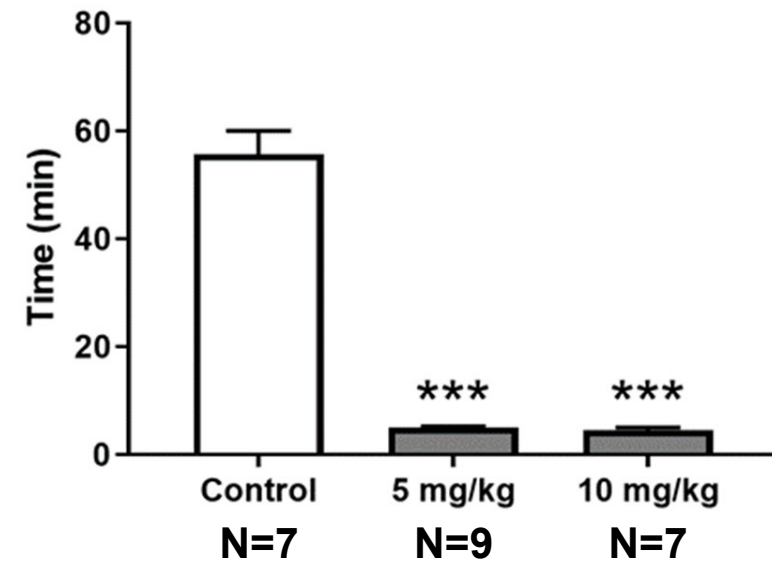
Faster and better clotting at injury sites without increased clotting risk

# CAY001 in Rat Model: Improved Clot Formation, Reduced Bleeding Time and Blood Loss

Clots formed with CAY001 had greater density and localized at the injury site in Rat

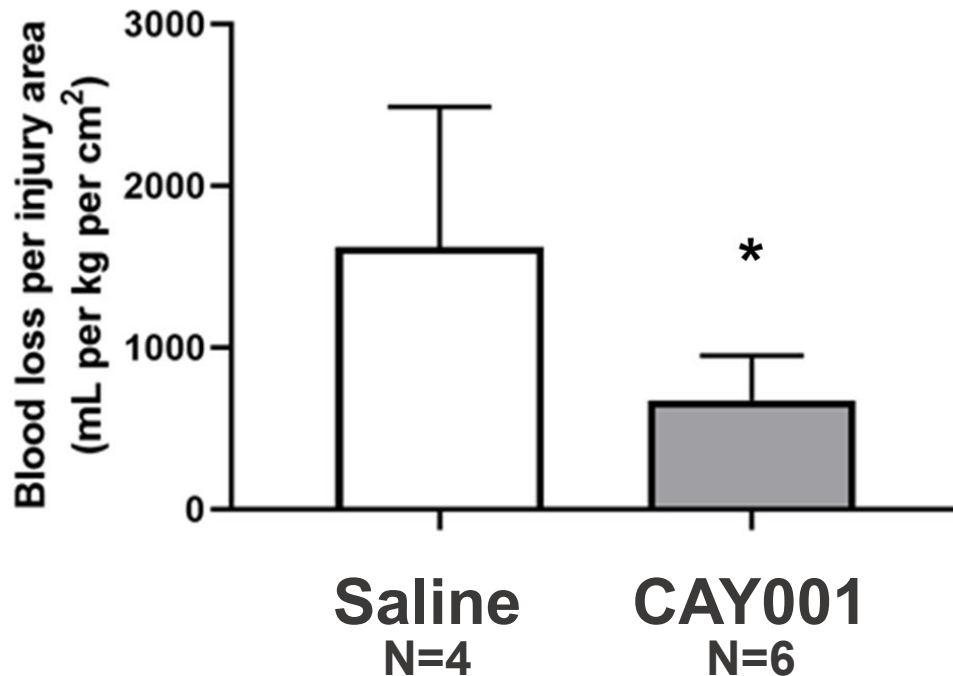


Bleeding time reduced by 90%  
31% reduction in blood loss in Rat

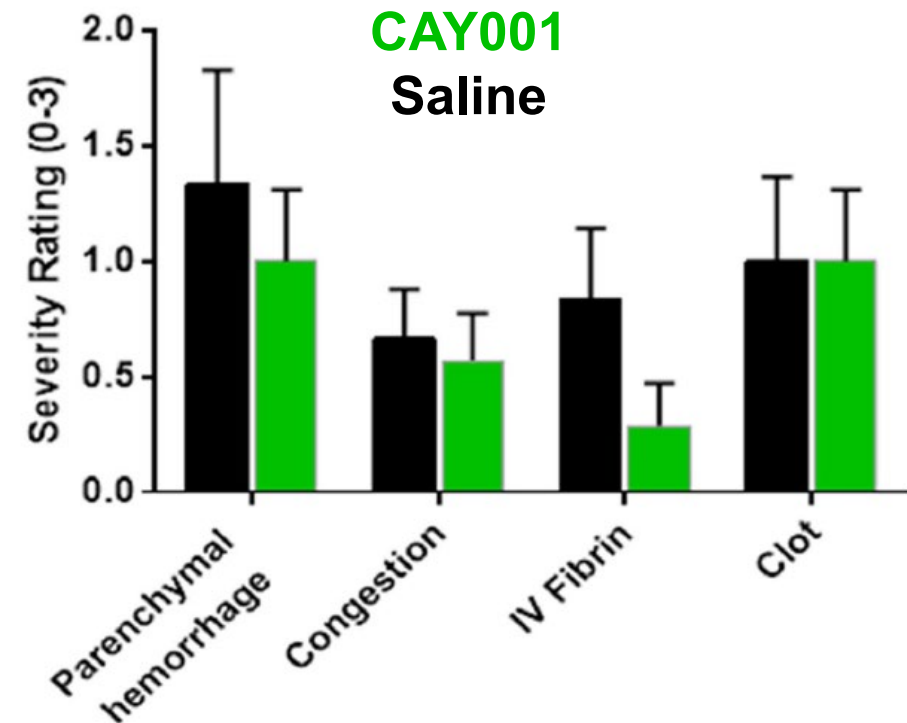


# CAY001 in Pig Model: Reduced Blood Loss Without Increased Clotting

42 % reduction in blood loss



No increase in adverse events





# Plavix Reversal is a Large Unmet Need

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**0.150 MM patients**



**0.250 MM patients**



**1.12 MM patients  
(\$5 B)**

# Plavix Reversal Provides a Quick Path to Market

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## Commercial Fast to Market Strategy Leveraging FDA's Accelerated Approval Pathway



The FDA instituted its Accelerated Approval Program to allow for earlier approval of drugs that treat serious conditions, and that fill an unmet medical need based on a surrogate endpoint. A surrogate endpoint is a marker, such as a laboratory measurement,

# Commercial Fast to Market Strategy Leveraging FDA's Accelerated Approval Pathway

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The FDA instituted its Accelerated Approval Program to allow for earlier approval of drugs that treat serious conditions, and that fill an unmet medical need based on a surrogate endpoint. A surrogate endpoint is a marker, such as a laboratory measurement,

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## Precedent in bleeding indication: Andexxa

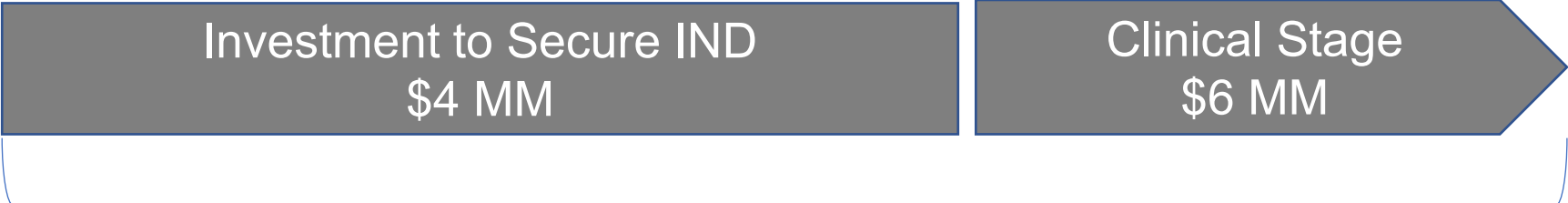
- Reversal of FXa anticoagulants
- Approval based on **71 healthy volunteers**
- Black box warning
- Portola (PTLA): Acquired by Alexion for \$1.4 B (May 2020)

## Implications for CAY001

- ✓ Treats life-threatening or uncontrolled bleeding
- ✓ Development path focused on high unmet need populations (No treatment for anti-platelet reversal)
- ✓ Potential surrogate endpoints identified

# Clinical Proof of Concept Possible with \$10M Raise

## Initial Raise of \$4M To Get to First in Human



\$10 MM

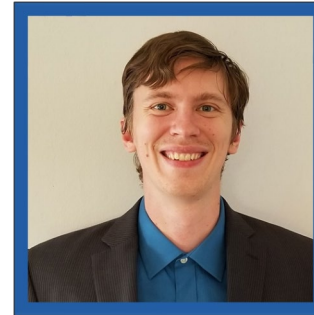
# The Cayuga Team



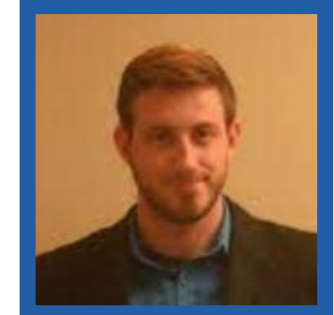
**Damien Kudela, PhD**  
Co-Founder, Inventor



**Andrea Ashford-Hicks**  
Senior Advisor  
20 years Pharma BD & DD



**Nathan Ogden, PhD**  
Senior Scientist



**Kyle Ploense, PhD**  
Co-founder

## KOLs

**Josh Goldstein, MD, PhD**  
Massachusetts General Hospital,  
Harvard Medical School,  
Department of Emergency  
Medicine

**Jerrold Levy, MD**  
Nat'l Academy of Science;  
Duke University, Co-director  
Cardiac ICU

## Scientific Advisors

**Prof. Galen Stucky**  
Nat'l Academy of Science;  
Materials Department, UCSB

**Prof. James Morrissey**  
PolyP Expert  
U Michigan Medical School

## Technical Advisors

**David McGuinn, PhD**  
Regulatory & Toxicology  
Former FDA CDER

**Mark Tracy, PhD**  
CMC  
Tracy Bioconsulting

## Business Advisors

**Karen Boezi**  
Former CEO Redwood Bioscience,  
Partner, Thomas, Mc Nerney

**Ajay Rai**  
VP, Business Development  
Frequency Therapeutics FREQ

**Nancy Stagliano, PhD**  
CEO Neuron23, Former CEO True  
North Therapeutics