

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 8, 2018

SANGAMO THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

000-30171
(Commission
File Number)

68-0359556
(IRS Employer
Identification No.)

501 Canal Blvd., Richmond, California 94804
(Address of principal executive offices) (Zip Code)

(510) 970-6000
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former Address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 7.01 Regulation FD Disclosure.

Included as Exhibit 99.1 to this Form 8-K is a presentation titled "Corporate Presentation – J.P. Morgan 36th Annual Healthcare Conference," dated January 10, 2018 (the "Corporate Presentation"), which is incorporated herein by reference. The Company intends to utilize this presentation in various meetings with securities analysts, investors and others in connection with the annual J.P. Morgan Healthcare Conference, commencing on January 8, 2018.

The information contained in this Item 7.01 and in the Corporate Presentation furnished as Exhibit 99.1 to this current report on Form 8-K shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended. The information contained in this Item 7.01 and in the Corporate Presentation furnished as Exhibit 99.1 to this current report on Form 8-K shall not be incorporated by reference into any filing with the U.S. Securities and Exchange Commission made by the Company whether made before or after the date hereof, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit
Number

99.1 [Corporate Presentation - J.P. Morgan 36th Annual Healthcare Conference.](#)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

DATE: January 8, 2018

SANGAMO THERAPEUTICS, INC.

By: /s/ KATHY YI
Kathy Yi
Senior Vice President and Chief Financial Officer

J.P. Morgan 36th Annual Healthcare Conference

Dr. Sandy Macrae
CEO

January 10, 2018



Forward Looking Statements

This presentation contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, as amended. These forward-looking statements include, but are not limited to, the duration for which existing capital resources can provide for planned operations; the design of clinical trials and expected timing for release of data; the anticipated clinical development milestones and other potential value drivers in the future; the expected benefits of the collaboration with Pfizer; the expected capability of Sangamo's technologies; the ability of Sangamo to research and develop novel gene-based therapies and the anticipated benefits of applying Sangamo's ZFP technology platform to specific human diseases; anticipated benefits from corporate partnerships; and the potential of Sangamo's genome editing technology to treat genetic diseases. Our actual results may differ materially and adversely from those expressed in any forward-looking statements as a result of various factors and uncertainties. Factors that could cause actual results to differ include, but are not limited to, the dependence on the success of clinical trials of lead programs, the lengthy and uncertain regulatory approval process, uncertainties related to the timing of initiation and completion of clinical trials, whether clinical trial results will validate and support the safety and efficacy of Sangamo's therapeutics, the ability to establish strategic partnerships and our ability to control expenses and achieve our milestones that generate revenues under our agreements. Further, there can be no assurance that the necessary regulatory approvals will be obtained or that Sangamo and its partners will be able to develop commercially viable gene-based therapeutics. Actual results may differ from those projected in forward-looking statements due to risks and uncertainties that exist in Sangamo's operations and business environments. These risks and uncertainties are described more fully in Sangamo's Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q as filed with the Securities and Exchange Commission. Forward-looking statements contained in this presentation are based on our current expectations and are made as of the date hereof. Sangamo undertakes no duty to update such information except as required under applicable law.



We are committed to translating ground-breaking science into genomic therapies that transform patients' lives

Sangamo is investing across four technological platforms for genomic medicines



Gene Therapy



Genome Editing



Cell Therapy



Gene Regulation



- ✓ Optimized Zinc Finger technology platform
- ✓ Improved cell therapy editing: >90% T-cell multiplexing efficiency
- ✓ Demonstrated AAV.SGMO crosses blood-brain barrier via IV delivery in mice
- ✓ Advanced LNP platform after demonstrating highly efficient editing and protein knock down in mice

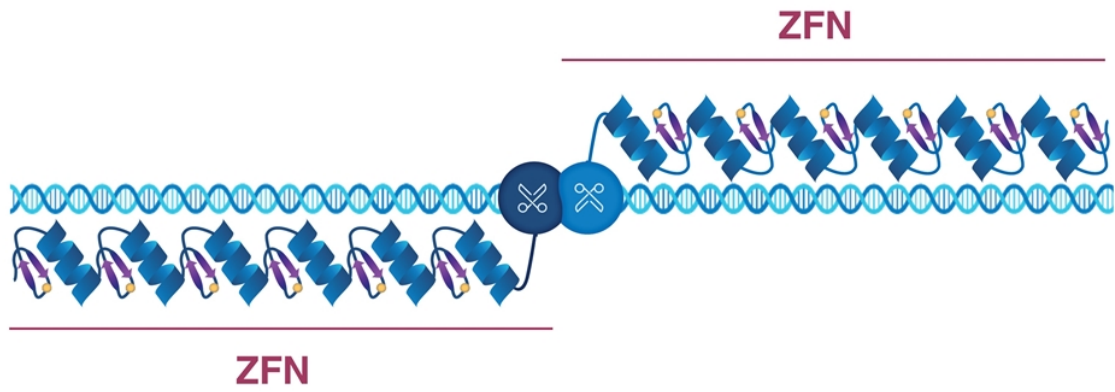


- ✓ Initiated 3 Phase 1/2 clinical studies for hemophilia A, MPS I and MPS II
- ✓ Dosed patients in SB-525 hemophilia A gene therapy study
- ✓ First ever patient treated with *in vivo* genome editing
- ✓ FDA acceptance of IND for ST-400 beta-thalassemia

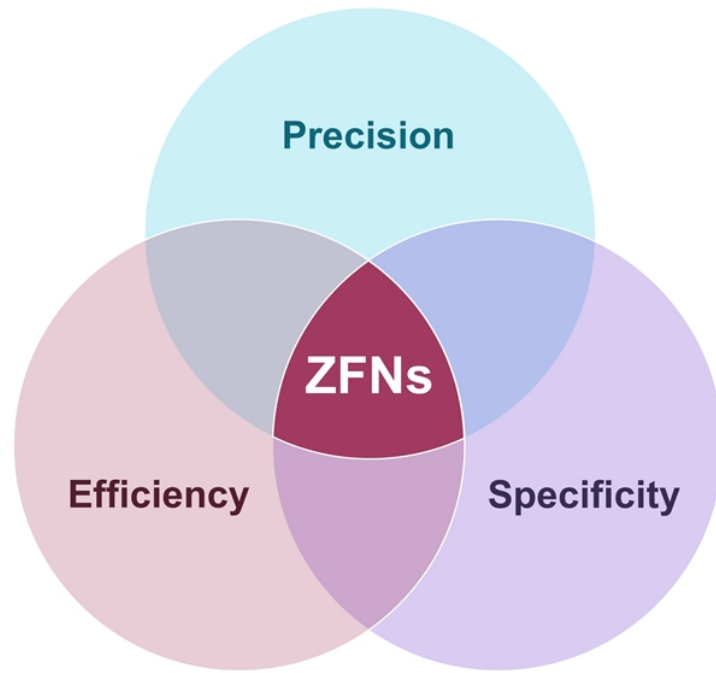


- ✓ Global collaboration agreement with Pfizer for SB-525 (hemophilia A)
- ✓ ZFP-TF gene regulation collaboration agreement with Pfizer for C9ORF72-linked ALS and FTLD
- ✓ Strengthened balance sheet; cash runway of more than 2 years
- ✓ Secured new corporate HQ in South San Francisco biotech hub
- ✓ Expanded manufacturing capacities and secured cGMP vector supply chain

ZFNs: The platform of choice for therapeutic genome editing



ZFNs: The platform of choice for therapeutic genome editing



Recent innovations drive exceptional performance

Innovation

Result



New linkers for configuring DNA-binding modules

300-fold increase in design options for targeting any given sequence



New dimer architectures yield higher modification activity

Increase DNA editing efficiency to as high as **99.5%**



Phosphate contact tuning via replacement of key residues

Off-target cleavage undetectable (**>1000** fold reduction)

Sangamo Therapeutic Development

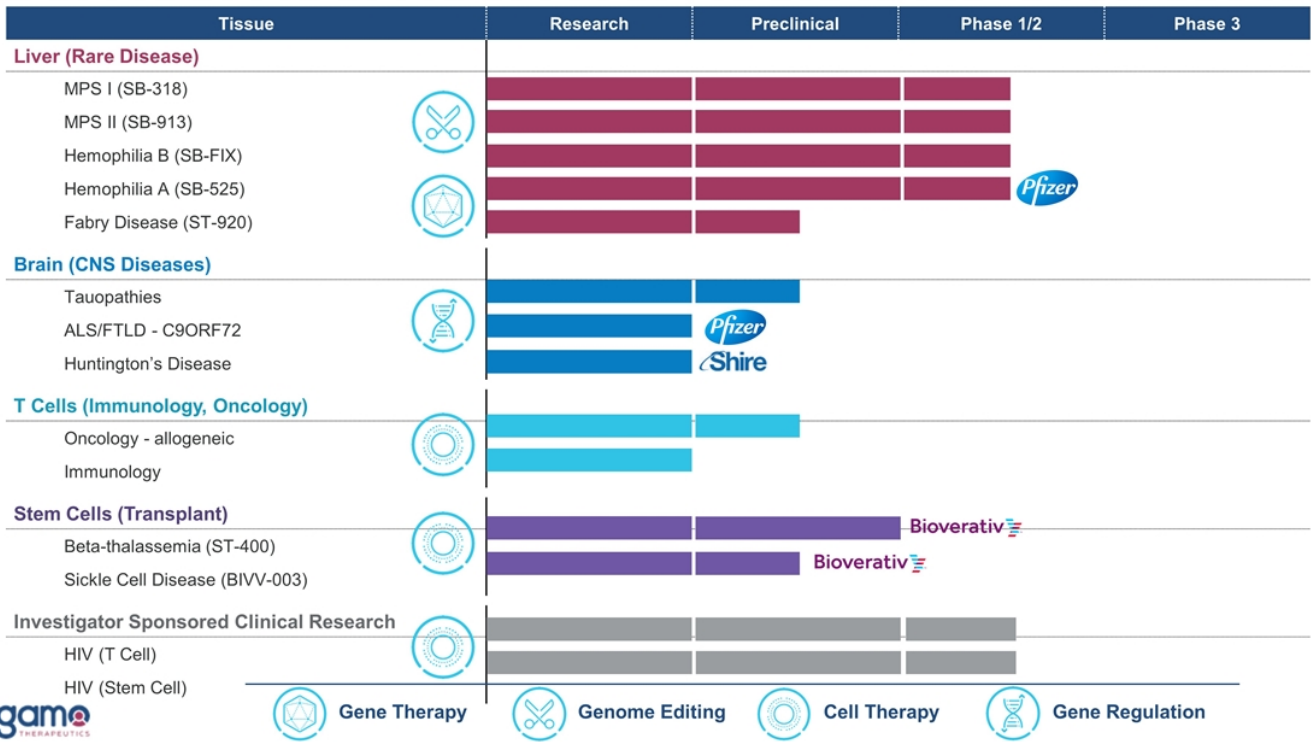
Therapeutic programs

SB-318: MPS I
SB-913: MPS II
SB-FIX: Hemophilia B
SB-525: Hemophilia A
ST-920: Fabry Disease
ST-400: Beta-thalassemia
BIVV-003: Sickle Cell Disease

Research

T-cell Immuno-Oncology
CNS: ALS/FTLD (C9ORF72)
CNS: Tauopathies
Technology: ZFNs, AAV, LNPs

Product portfolio diversified across tissue, disease and technology





Liver
(Rare Diseases)



Genome Editing

- SB-318: MPS I
- SB-913: MPS II
- SB-FIX: Hemophilia B

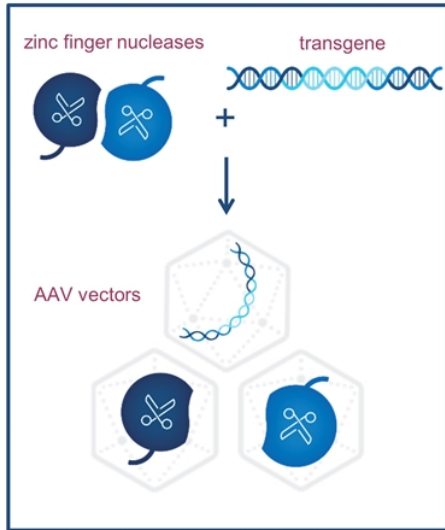


Gene Therapy

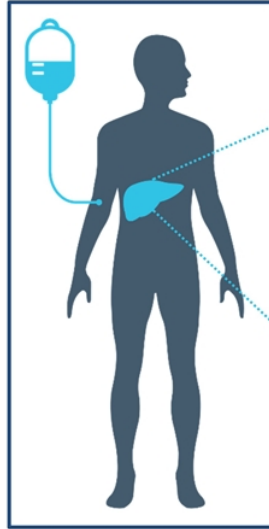
- SB-525: Hemophilia A
- ST-920: Fabry disease

In vivo genome editing of albumin: harnessing the liver's most highly expressed locus

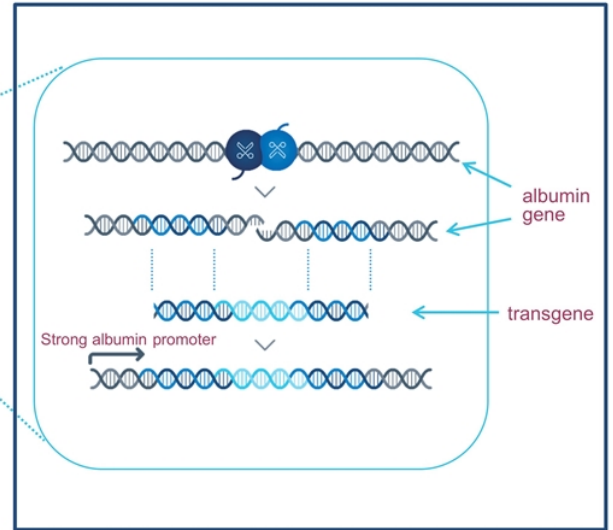
Packaging into AAV vectors



Delivery



In the liver





SB-318: MPS I SB-913: MPS II

Phase 1/2 Clinical Trial Status

- ✓ INDs open
 - ✓ Studies initiated
 - ✓ 14 sites active by YE 2017
 - ✓ First patient treated (MPS II)
- Preliminary data expected 1H 2018

Regulatory Designations

- US**  • Orphan Drug
• Rare Pediatric Disease
• Fast Track
- EMA**  • Orphan Medicinal Product

SB-FIX: Hemophilia B

Phase 1/2 Clinical Trial Status

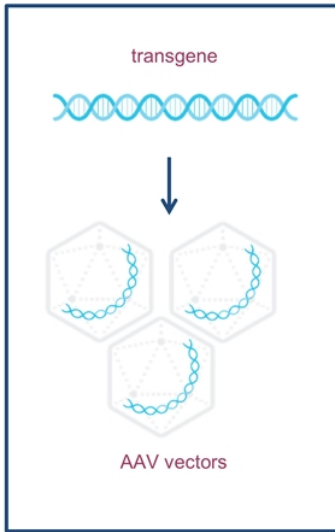
- ✓ IND open
 - ✓ Study initiated
 - ✓ 4 sites active at YE 2017
 - ✓ Multiple patients screening
- Preliminary data expected in 2018

Regulatory Designations

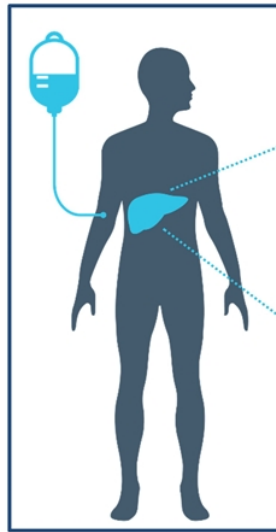
- US**  • Orphan Drug
• Fast Track

Sangamo's AAV cDNA gene therapy platform: potential for potent therapeutic solutions for adults with rare monogenic diseases

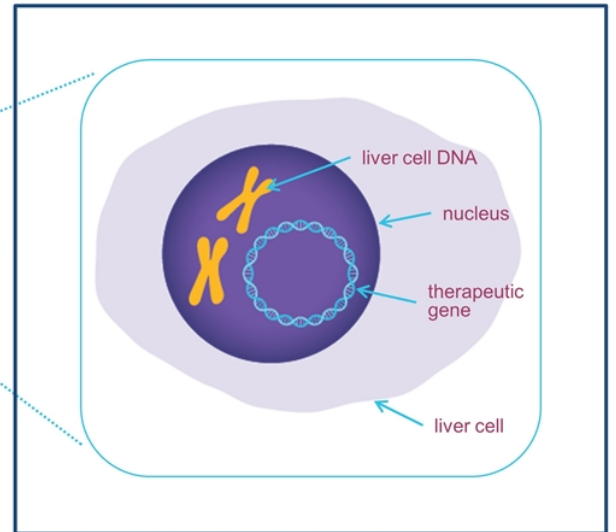
Packaging into AAV vectors



Delivery



In the liver



Gene therapy program summary for SB-525

SB-525: Hemophilia A

Phase 1/2 Clinical Trial Status



IND open



Study initiated



8 sites active at YE 2017



3 patients treated

Preliminary data expected 1H 2018

- Amended study protocol with FDA – allows flexibility to dose-escalate after 2 patients / cohort
- Strong collaborative relationship with Pfizer focused on long-term success

Regulatory Designations

US



- Orphan Drug
- Fast Track

EMA



- Orphan Medicinal Product



Gene therapy program summaries for SB-525 and ST-920



SB-525: Hemophilia A

Phase 1/2 Clinical Trial Status

- ✓ IND open
 - ✓ Study initiated
 - ✓ 8 sites active at YE 2017
 - ✓ 3 patients treated
 - ✓ Protocol amended with FDA – 2 pts / cohort
- Preliminary data expected 1H 2018

Regulatory Designations

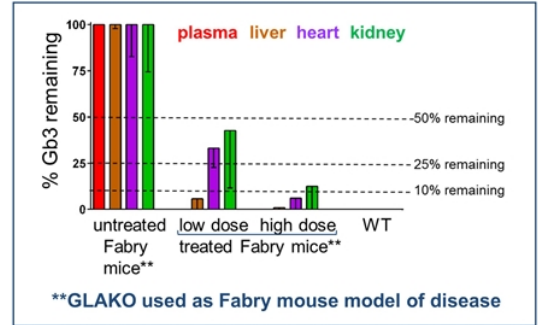
- US** • Orphan Drug
• Fast Track
- EMA** • Orphan Medicinal Product



ST-920: Fabry Disease

Therapeutic Program Status

- ✓ IND enabling studies ongoing
- IND filing expected mid-2018





Cell Therapy

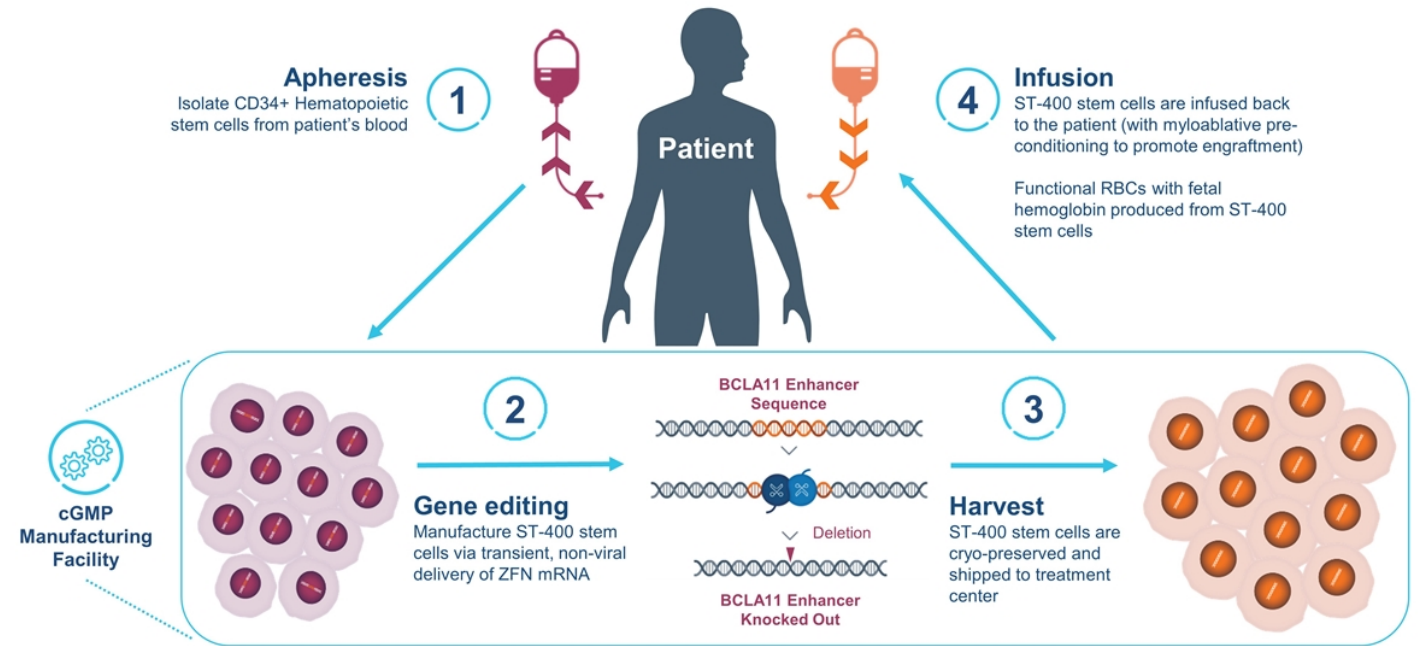
Stem Cells

ST-400: Beta-thalassemia
BIVV-003: Sickle Cell Disease

T Cells

Allogeneic CAR-T / TCR Immunotherapy

Autologous, gene-edited cell therapies for beta-thalassemia and sickle cell disease



Cell therapy program summaries for ST-400 and BIVV-003

ST-400: Beta-thalassemia

Phase 1/2 Clinical Trial Status



IND open

Study initiation early 2018

First enrolled subject expected mid-2018

BIVV-003: Sickle Cell Disease

Phase 1/2 Clinical Trial Status

IND filing expected in 2018

Strategic Advantages



Leverages naturally-occurring, protective mechanism to increase fetal-hemoglobin



Highly efficient, precise gene editing; low risk of insertional mutagenesis



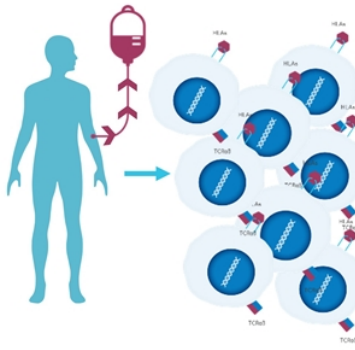
Non-viral delivery of ZFNs



Potentially superior long-term safety profile

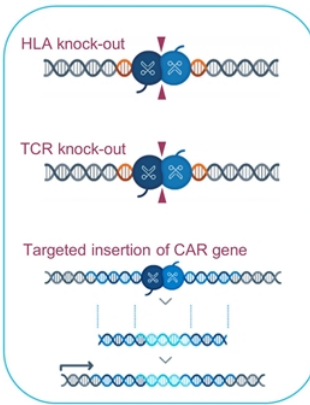
Manufacturing allogeneic T-cell therapies with ZFNs

 cGMP Manufacturing Facility



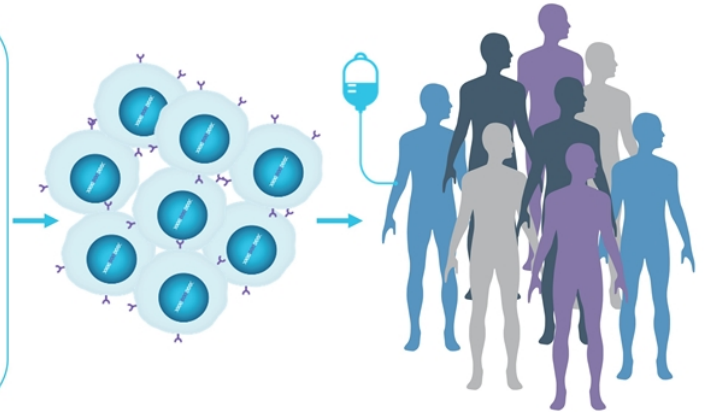
1

Healthy Donor Apheresis
Isolate T-cells from a healthy donor's blood



2

T-cell Manufacturing
Transient, non-viral delivery of ZFN mRNA to manufacture universal CAR-T cells via single-step, multiplexed gene editing




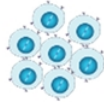


3

Harvest & Storage
Universal CAR-T cells are harvested, cryo-preserved and stored in a secure cell bank

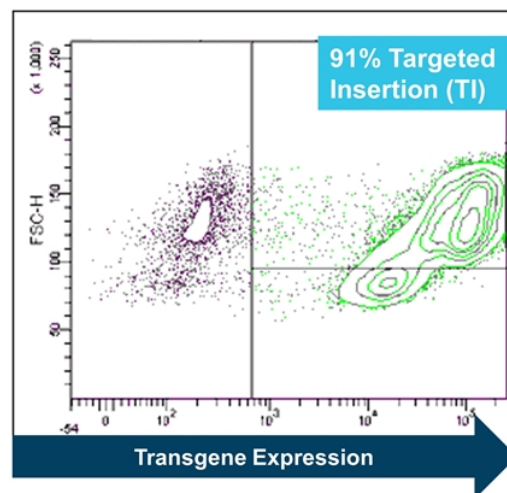
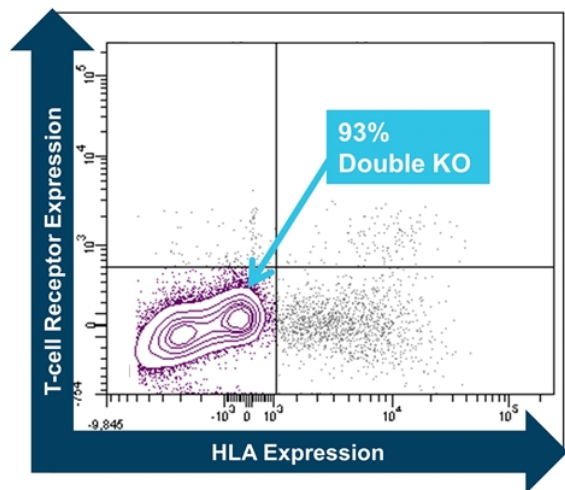
4

Infusion (Patients)
Universal, off-the-shelf CAR-T cells are infused into new patients, on-demand

Allogeneic cell therapy production: high efficiency is critical for single-step multiplexed genome editing

	1 KO	+	1 KO	+	1 TI	=	Compounded Efficiency	
Very High	99%	x	99%	x	99%	=	97%	
High	90%	x	90%	x	90%	=	73%	
Medium	70%	x	70%	x	70%	=	34%	
Low	50%	x	50%	x	50%	=	13%	

We can reliably hit >90% gene editing efficiency in T-cells



✓ Precise KO at TRAC and B2M loci with no detectable off-target activity

✓ Precise TI with no detectable off-target activity

Simultaneous multiplex editing efficiencies: 3x ZFN KO + 1x TI

POTENTIAL APPLICATION:

Universal T cells with checkpoint gene knock-out

SINGLE STEP EDITING

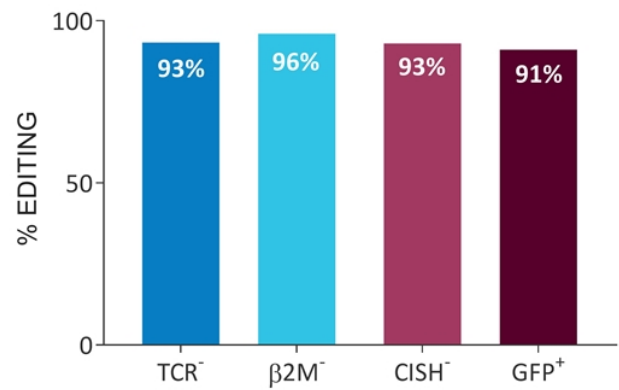


ZFN Knock-out

- TCR (TRAC)
- HLA-class I (β 2M)
- CISH (checkpoint gene)

Targeted Insertion

- GFP (into TRAC)



76% of cells have all 4 edits

KO: TCR, β 2M and CISH; TI: GFP (TRAC)



Brain
(CNS Diseases)

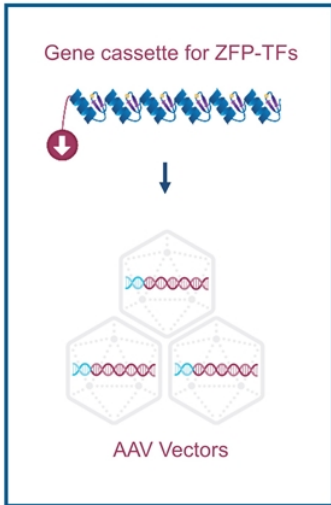


Gene Regulation

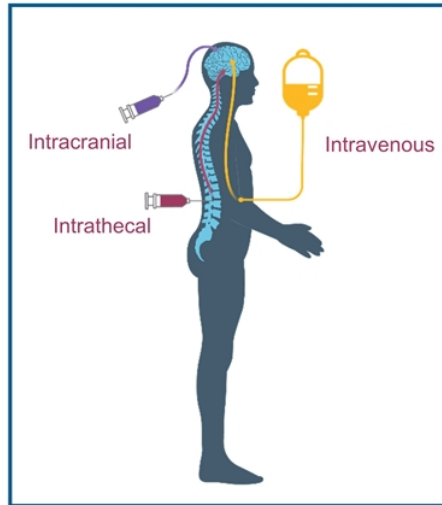
Huntington's disease
Tauopathies
C9ORF72 for ALS and FTLD

Sangamo's gene regulation platform: precise and specific regulation of a mutated gene allele to treat various CNS diseases

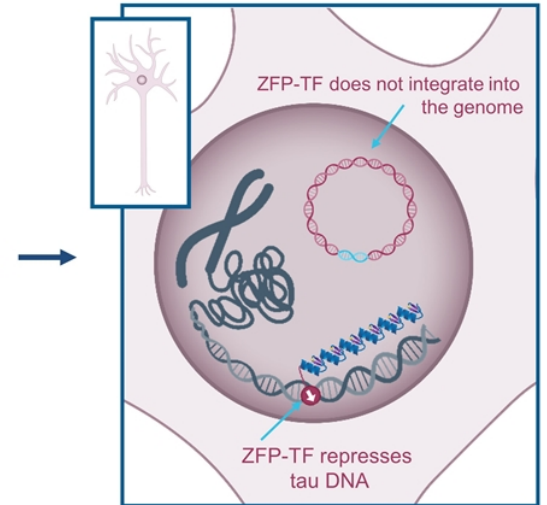
Packaging into AAV vectors



Potential Routes of Administration



In Neurons

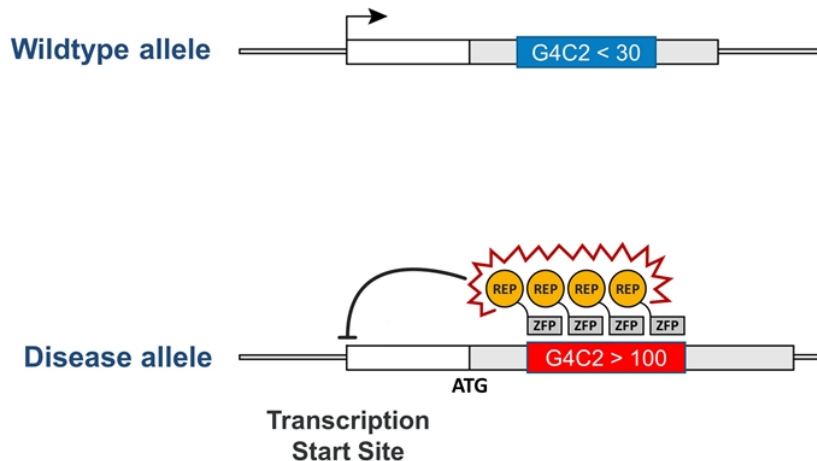


New R&D collaboration with Pfizer to develop gene therapy for ALS and FTLN using Sangamo's ZFP-TF gene regulation platform



Gene Regulation

C9ORF72
gene target



New R&D collaboration with Pfizer to develop gene therapy for ALS and FTLN using Sangamo's ZFP-TF gene regulation platform



Gene Regulation

C9ORF72
gene target

\$12M

Upfront payment

\$60M

Development, regulatory and
first commercial sale milestones

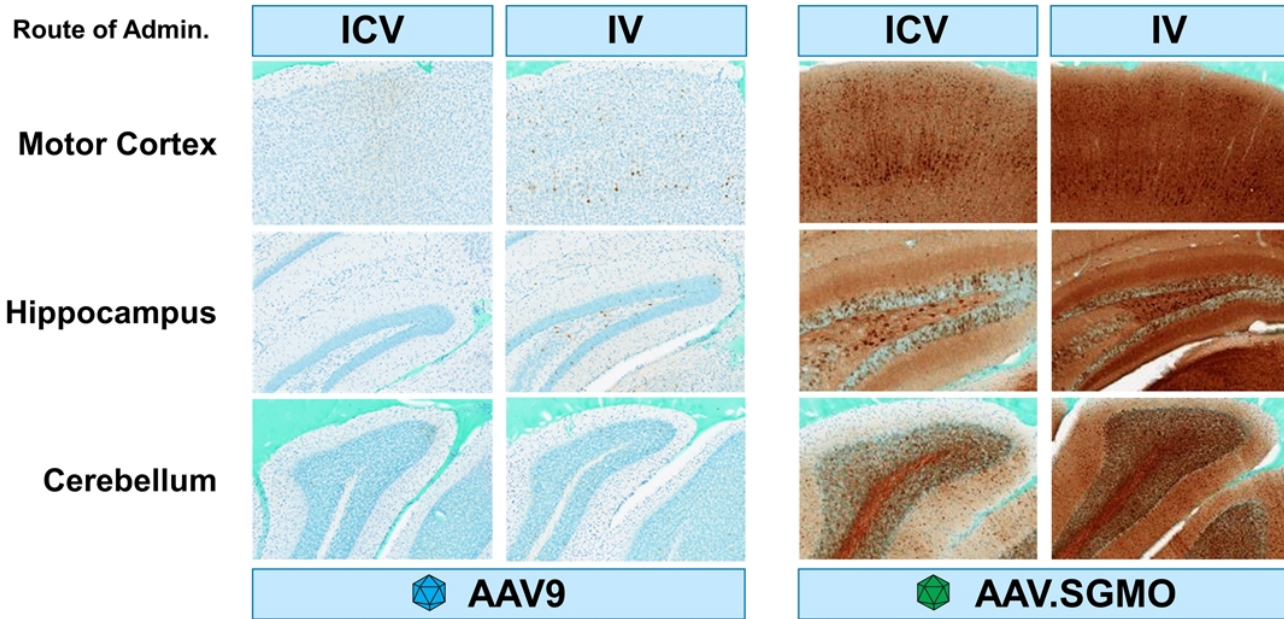
\$90M

Sales milestones

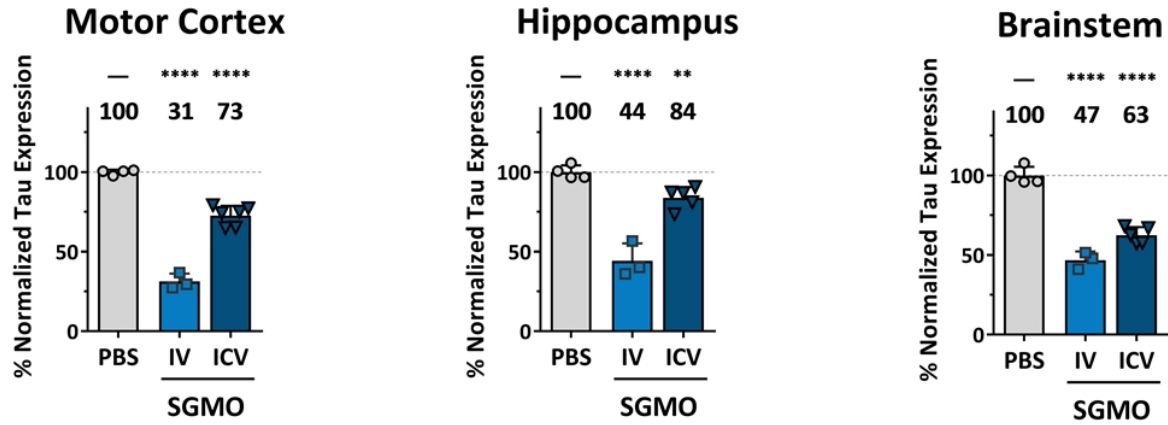
Tiered royalties on net sales



AAV.SGMO delivery via IV or ICV administration results in greater neuronal transduction efficiency compared to AAV9



AAV.SGMO ZFP-TF: potent tau reduction via IV / ICV administration



✓ Up to ~50-70% tau reduction in targeted brain regions for tauopathies



2018 Priorities

Balanced manufacturing strategy ensures cGMP clinical supply for current and future pipeline programs



*Digital rendering of Sangamo cGMP facility

- Sangamo owned cGMP facility along with expanded agreement with Brammer Bio enables flexible supply to support expanding pipeline
 - Sangamo cGMP facility initially focused on product development and Phase 1/2 clinical trial supply for new pipeline programs
 - Brammer agreement provides dedicated capacity for clinical supply of Sangamo's lead development programs
- Capability to manufacture AAV and autologous / allogeneic cell therapies
- Balanced manufacturing approach to ensure clinical supply and control of quality, cost and timelines

2018 steps toward long-term success of Sangamo

- 1 Clinical** Demonstrate clinical progress on core assets with preliminary clinical data beginning 1H 2018
- 2 Pipeline** Advance ST-400 BT program with FPI in mid-2018 and support Bioverativ IND filing for SCD. File IND for Fabry disease
- 3 Technology** Continue to set gene editing standards for precision, efficiency and specificity and operationalize platform improvements
- 4 Partnerships** Collaborate with the right partners to deliver best-in-class medicines to patients (e.g. oncology, CNS)
- 5 Corporate** Establish new headquarters and construct state-of-the-art cGMP manufacturing facility in Brisbane, California

Thank you.

