Common Fund: Somatic Cell Genome Editing Program – Competing Revisions for Clinical Trials NOFO: Concept Clearance

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OSC (Common Fund) – Competing Revisions to Support Clinical Trials in Somatic Cell Genome Editing (U19 Clinical Trial Required)

Concept Clearance: New Funding Opportunity within the Somatic Cell Genome Editing Program

TITLE: Limited Competition: Competing Revisions to Support Clinical Trials in Somatic Cell Genome Editing (U19 Clinical Trial Required)

Competition: Limited to U19 projects funded under RFA-RM-22-015

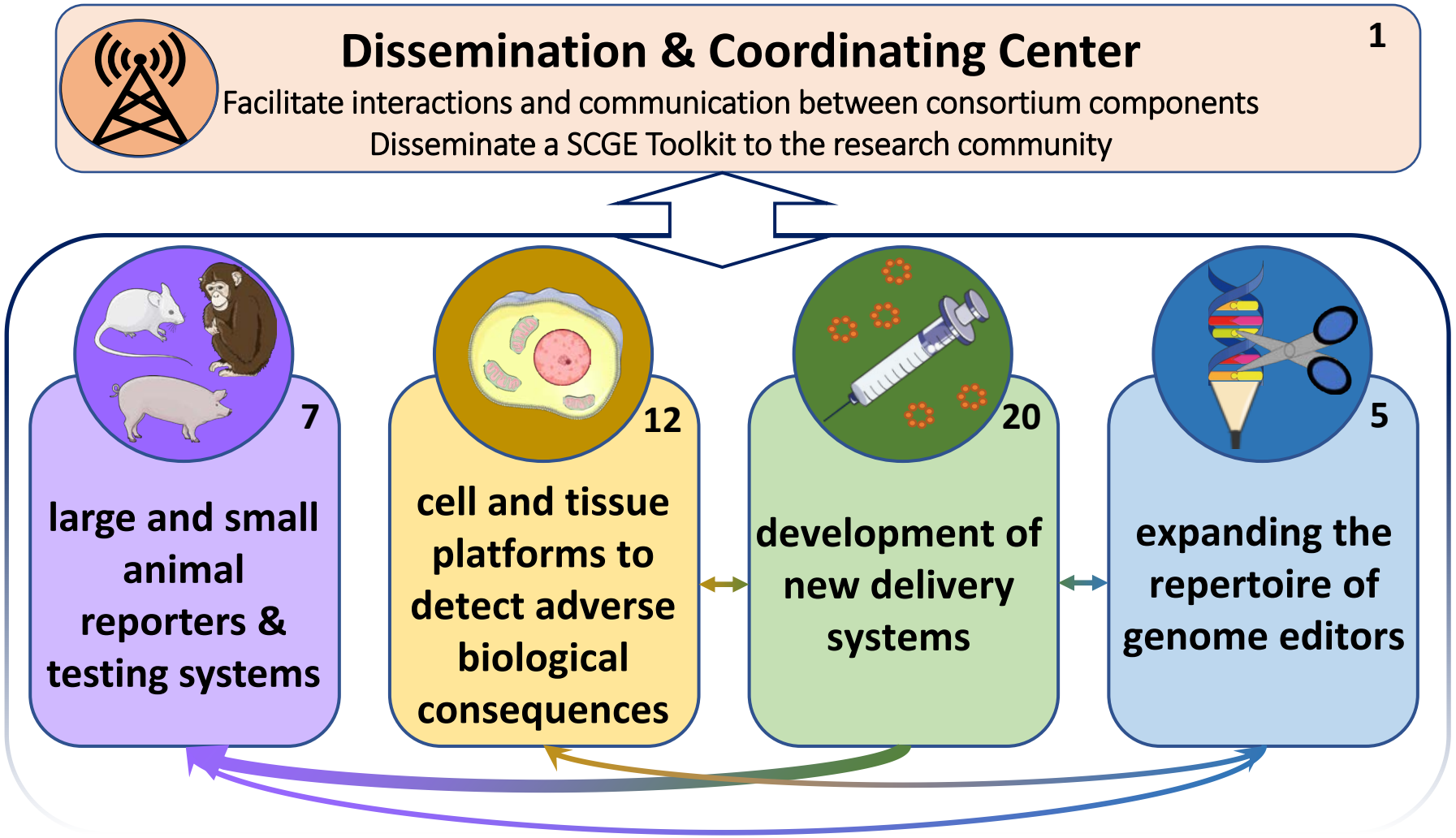
Objective: To expand the scope of the original SCGE therapy development awards, to support small First-in-Human and Early-Stage Clinical Trials

Funds Available and Anticipated Number of Awards: $0-6 million per year; anticipate 0-2 awards (contingent upon funding availability)

Award Project Duration: a 2-year project period

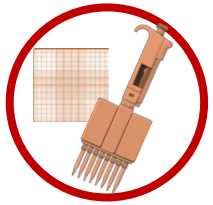
Council Action: Vote for approval of the concept for Limited Competition: Competing Revisions to Support Clinical Trials in Somatic Cell Genome Editing (U19 Clinical Trial Required)

SCGE Overview: Phase 1-Technology Development



SCGE Overview: Phase 2-Therapy Development

Technology Development	Pre-clinical, IND-enabling Studies	Clinical Trials	Coordination & Dissemination



In 1: TECHNOLOGY & ASSAY DEVELOPMENT

Improve assays and technology for regulatory purposes and preclinical studies.

In 2: IND-ENABLING STUDIES

Optimize genome editing-based therapeutic leads for safety and efficacy. Establish the regulatory pathway to the clinic for genome editing as a platform technology.

In 3: PLATFORM CLINICAL TRIALS

Streamlined regulatory pathway toward IND approval for in vivo genome editing trials of >1 disease at a time

In 4: TRANSLATION COORDINATION & DISSEMINATION CENTER

Disseminate successful strategies for navigating the regulatory path for the development of novel genome editing therapeutics.

U19 Awards from the IND-enabling Studies of Somatic Genome Editing Therapeutic Leads

Project Number	PI	Title	Institution
U19 NS132303-01	DOUDNA	Correction of Neurological Disease via Allele Specific Excision of Pathogenic Repeats	UC- BERKELEY
U19 NS132304-01	LUTZ	Preclinical Genome Editing for Rare Neurological Diseases	JACKSON LABORATORY
U19 NS132301-01	PERANTEAU	Postnatal and Prenatal Therapeutic Base Editing for Metabolic Diseases	CHOP/UPENN
U19 NS132296-01	SAHA	The CRISPR Vision Program: Nonviral Genome Editing to Treat Inherited Retinal Channelopathies	UNIV. OF WISCONSIN
U19 NS132315-01	VALLABH	Therapeutic Editing to Lower PrP in Prion Disease	BROAD INSTITUTE

Each U19 contains:

- 3 distinct Projects for the development of genome editing-based therapeutic leads
- One Project identified as the "trailblazer" project that is poised to advance a therapeutic clinical candidate to an IND package submission within five years
- Other “follower" Projects at earlier stages of development that are on a clear path to identify a clinical candidate within the five-year of funding period
- An Administrative Core and 1 or more Scientific Cores (e.g., regulatory, vector production, etc.) that support the U19 Projects
- **Clinical Trials were not allowed. We did not anticipate investigators progressing this quickly.**

Goals for the Competing Revision to Support Clinical Trials in Somatic Cell Genome Editing NOFO

- Capitalize on the successes of SCGE investigators in developing genome editing therapies faster than anticipated
- Expand the scope of existing SCGE cooperative agreement program project awards to allow human subjects research
- Use NIH/SCGE award dollars efficiently, allowing SCGE PIs to re-budget existing awards, redirecting funds toward clinical trial readiness activities
- Support First-in-Human clinical trials of novel genome editing therapies

The Competing Revisions to Support Clinical Trials in Somatic Cell Genome Editing NOFO will ensure diverse perspectives contribute to this activity by:

- Developing strategies to better engage participants, families, and other relevant groups in the research process as partners, especially patients/family members who have lived experience on appropriate outcome measures from genome editing therapy

- Developing best practices and guidelines for sharing with patients clinically valuable and or medically relevant information on risks and benefits of genome editing

- Considering unique concerns and strategies to be applied in the thoughtful engagement of marginalized populations in biomedical research on the risks and benefits of genome editing

Anticipated Impact of the NOFO

Impact on the SCGE Program:

- It will represent the culmination of years of work by the SCGE investigators and deliver on one the major goals of the program: moving genome editing therapies into the clinic.

Impact on the field

- It will provide an example(s) of a genome editing therapeutic moving through the regulatory process from preclinical development, to IND, and finally to clinical trial.
- The information on the regulatory process will be shared through the SCGE consortium to the genome editing field at large, providing a roadmap from preclinical development to clinical trials.

Impact on the patients

- It will provide the hope for true cures to debilitating genetic diseases.

Council Action:
Vote for approval of the concept for Limited Competition: Competing Revisions to Support Clinical Trials in Somatic Cell Genome Editing (Clinical Trials Required)

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