

SPARC Drug Discovery Collabofest Challenge

Turn a compelling biomedical insight into a testable therapeutic strategy.

Three selected eligible teams will each receive up to \$20,000 in scoped, in-kind SPARC drug-discovery services. Awards are service commitments, not cash grants.

Purpose

The Systems Pharmacology AI Research Center (SPARC) invites eligible investigators to form multidisciplinary teams around high-potential drug-discovery ideas. The challenge is designed to move promising research from biological insight or clinical observation toward an experimentally testable therapeutic solution, while generating pilot evidence for grants, publications, partnerships, and potential UAB intellectual property.

Challenge at a glance

Eligible multidisciplinary teams will submit a concise three-page proposal through the designated Collabofest collaboration portal. Portal submission will be required for all contestants. Projects may address Targets, Chemicals, Patient Cohorts, or an integrated path across the three pillars. Submission dates, portal instructions, and updates will be posted at ubRITE.org/2026collabofest/.

Who is eligible?

Each team must include at least one co-investigator whose primary institutional affiliation is either the University of Alabama at Birmingham (UAB) or an institution in the UAB-led Center for Clinical and Translational Science (CCTS) Partner Network. Additional team members may come from other institutions or organizations, subject to program requirements. For the current list of CCTS Partner Network institutions, visit www.uab.edu/ccts/about/partner-network.

What projects are eligible?

A proposal may begin with one or connect several of the following:

- **Targets:** a disease mechanism, candidate target, pathway, cell type, biomarker, or modality-selection question.
- **Chemicals:** a small molecule, antibody, biologic, drug-repositioning opportunity, combination strategy, or design and optimization challenge.
- **Patient cohorts:** a response-heterogeneity problem, biomarker-defined population, synthetic-patient opportunity, digital-twin model, or virtual clinical-trial question.
- **End-to-end concepts:** projects that connect mechanism, therapeutic design, validation, and the patients most likely to benefit.

Who should form a team?

Competitive teams will combine scientific or clinical ownership of the problem with a credible path to validation. Informatics and data science expertise are valuable, but the strongest teams will also contribute one or more complementary assets. No team is expected to possess every asset listed below.

- A unique, accessible patient-cohort or experimental dataset

- A published disease-mechanism study, rigorous review, or evidence-supported target shortlist
- A distinctive assay, organoid, new approach methodology (NAM), tissue model, or other validation platform
- Clinical expertise, cohorts, biospecimens, endpoints, or recruitment resources
- Medicinal chemistry, biologics, pharmacology, regulatory, commercialization, or intellectual-property expertise
- A commercial or external translational partner
- Existing external funding or committed resources related to the proposed program

What should the three-page proposal contain?

- **Unmet need:** the disease problem or critical translational barrier.
- **Central hypothesis:** the target, mechanism, intervention, or patient-selection concept to be tested.
- **Scientific foundation:** key publications, preliminary findings, clinical observations, and available data.
- **Proposed solution:** the decision, prediction, design, or translational asset the team wants to produce.
- **SPARC support requested:** the specific services needed and why they are essential.
- **Team readiness:** relevant expertise, datasets, assays, models, clinical resources, partners, and funding.
- **Validation plan:** a feasible experimental, computational, clinical, or translational test of the resulting output. Candidate-generating projects should ordinarily identify an appropriate wet-lab validation route.
- **Next milestone:** how success could support a grant, manuscript, invention disclosure, licensing opportunity, startup, partnership, or clinical study.

Initial review considerations

- Significance of the unmet need and potential translational impact
- Strength and rigor of the scientific rationale
- Innovation and differentiation from existing approaches
- Fit with SPARC's AI and systems-pharmacology capabilities
- Feasibility within the available service award and project period
- Quality and accessibility of required data
- Credibility of the validation plan and ownership of follow-up work
- Complementarity and readiness of the team
- Potential to generate follow-on funding, publications, UAB intellectual property, or a development partnership

SPARC will use automated, agent-assisted reviews to support consistent preliminary assessment and synthesis of submitted materials. These reviews will serve as decision support and will not independently select winners. A panel of judges representing SPARC, the UAB Department of Biomedical Informatics and Data Science (DBIDS), the Marnix E. Heersink Institute for Biomedical Innovation, Southern Research, and the UAB-led Center for Clinical and Translational Science (CCTS) will review the evidence and recommend the final winners. Criteria for designation as the Grand Prize winner will be announced separately.

Award scope and expectations

The service menu in the companion addendum is illustrative. Selection does not guarantee every listed activity. SPARC and each selected team will jointly define a focused scope, inputs, deliverables, responsibilities, milestones, and timeline. Unless specifically included in the final scope, the award should not be assumed to cover compound synthesis or purchase, wet-lab experiments, animal studies, clinical recruitment, regulatory submissions, patent expenses, or third-party fees.

Teams should identify relevant background intellectual property, prior disclosures, restricted data, and potential inventorship considerations. Data access, privacy, security, publication, authorship, and intellectual-property matters will follow applicable UAB policies and project-specific agreements.

Before submitting

Review the companion documents *What May the \$20,000 SPARC Service Award Include?* and *Team Readiness Self-Checklist*. Teams with important gaps are encouraged to recruit collaborators before submission or explain how the gap will be closed.

Learn more

Collabofest: <https://ubrite.org/2026collabofest/>

SPARC: <https://sites.uab.edu/sparc/>

SPARC challenge announcement: <https://www.smartdrugdiscovery.org/post/dd-collabofest-challenge>

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