

2015 NCATS SBIR/STTR Research Priorities

NCATS

NCATS small business funding is designed specifically to transform the translational science process so that new treatments and cures for disease can be delivered to patients more quickly. The Center supports the development of clinical technology, instruments, devices and related methodologies that may have broad application to clinical research and better patient care.

Learn more about **NCATS' SBIR/STTR** areas of interest!

Drug Discovery & Development



- Small molecule and biologics analytical characterization
- Accelerate bioengineering approaches to the development and clinical application of biomedical materials, devices, therapeutics and/or diagnostics
- Technologies to determine alternative uses for existing therapeutic interventions
- Protein-protein interaction assays for high-throughput screening of rare-diseases-related projects
- Tools and technologies to enable assaying of compound activity on currently "non-druggable" targets
- Innovative platforms for identification and prioritization of targets for therapeutic intervention with clear clinical impact
- Fluorescence probes to replace antibodies for determination of cellular protein translocation
- Co-crystallization high-throughput screening techniques
- Tools and technologies that increase the predictivity or efficiency of medicinal chemistry, biologic or other intervention optimization
- Use of continuous flow manufacturing technology to address therapeutics shortages
- Interventions that target molecular pathways or mechanisms common to multiple diseases
- Development of novel alternative biologics technologies (e.g., inhalation/transdermal technologies for biologics)
- Methodologies and technologies to substantially lower the cost of manufacturing biologics
- Development of novel technologies for enzyme replacement therapies (e.g., new cell culture/ expression system) to solve a major bottleneck in rare diseases research
- Development of non-AB biologics, cell-based therapies and gene therapy discovery amid technology development



Diagnostics & Devices



- Small autonomous devices for real-time detection of metabolites involved in metabolic and endocrine disorders
- Phenotypic assay development, including stem cell technology platforms for human “disease-in-a-dish” applications and the evaluation of toxicity
- Development of patient-friendly devices able to measure metabolites in blood for the management of hyperammonemia and hyperaminoacidemias
- Tools and technologies that increase the efficiency of human subjects research, including development of technologies that facilitate rapid diagnosis and/or clinical trial recruitment and subject tracking, institutional review board evaluation, and/or regulatory processes
- Development of high-throughput imaging technologies that focus on making translational research more efficient

Bioinformatics & Information Technology



- Searchable access to information about research resources, facilities, methods, cells, genetic tests, molecules, biologic reagents, animals, assays, and/or technologies with links to their use in published research studies
- Development of personalized phenotypic profiling (as well as personalized intervention) based on patient-centered integration of data from multiple data sources, including social media
- Tools for meaningful sharing of research data with low barrier for provision and user-friendly access
- Novel platforms, technologies and tools to enable clinical and translational research, particularly those with mechanisms for inclusion of patient-reported data
- Software development to provide integration of patient data collected from multiple devices and diverse clinical studies

Clinical Research



- Increased efficiency of clinical research conduct, including but not limited to regulatory decision support, appropriate study site selection, patient eligibility analysis and recruitment tracking
- Educational tools for clinical and translational research
- Computational or Web-based health research methods, including:
 - Platforms for generally applicable and scalable multi-disease registries and natural history studies
 - Clinical trial designs and analyses (e.g., for pragmatic clinical trials)

Specialized Topics



- Platform delivery technologies for nucleic acid therapeutics
- Bioreactors for reparative medicine
- Development of appropriate pediatric formulations and drug delivery systems
- Onsite tools and technologies for heart, lung and blood clinical research point-of-care

For More Information
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