

# NC TraCS UNC-RTI Partnership

RTI International is a Research Partner with the North Carolina Translational & Clinical Sciences (NCTraCS) Institute at the University of North Carolina at Chapel Hill. The partnership strengthens connections between the two institutions and fosters cross-institutional multidisciplinary research. Together, RTI and UNC will increase resource availability to researchers at both institutions and expand the reach of NCTraCS to amplify translational scientific discovery in North Carolina.



# NC TraCS Services Based at RTI

These services are part of the wide range of NCTraCS research resources available to UNC investigators to assist and facilitate high-quality translational research.

## Early-Phase Drug Discovery Service



Early stages of the drug discovery process contain hurdles that must be cleared before more robust drug development can begin. Early-phase drug discovery helps researchers navigate challenges in the drug discovery process and move technologies toward development. Researchers with a potential drug target may use the service to discover and evaluate chemical compounds that ultimately could be developed into a medication for the disease of interest. This service can assist researchers by providing target and high-throughput screening (HTS) assay development, hit and lead discovery via HTS of a diverse 25,000 compound library, and lead optimization using computationally driven medicinal chemistry coupled with in vitro ADMET (absorption, distribution, metabolism, excretion, and toxicity) assays, and in vivo pharmacokinetics.

## Drug Development and Regulatory Service



Translating laboratory discoveries into therapies is a complex and expensive process. Developing a strategic plan is critical to the success of a drug development program. This service will expand the existing NC TraCS Regulatory Core to help researchers translate novel discoveries into new therapies. It will provide UNC investigators with preclinical study support; guidance for chemistry, manufacturing, and control activities; regulatory writing and consulting; and a plan to advance a compound to an Investigational New Drug Application.

## Metabolomics Service

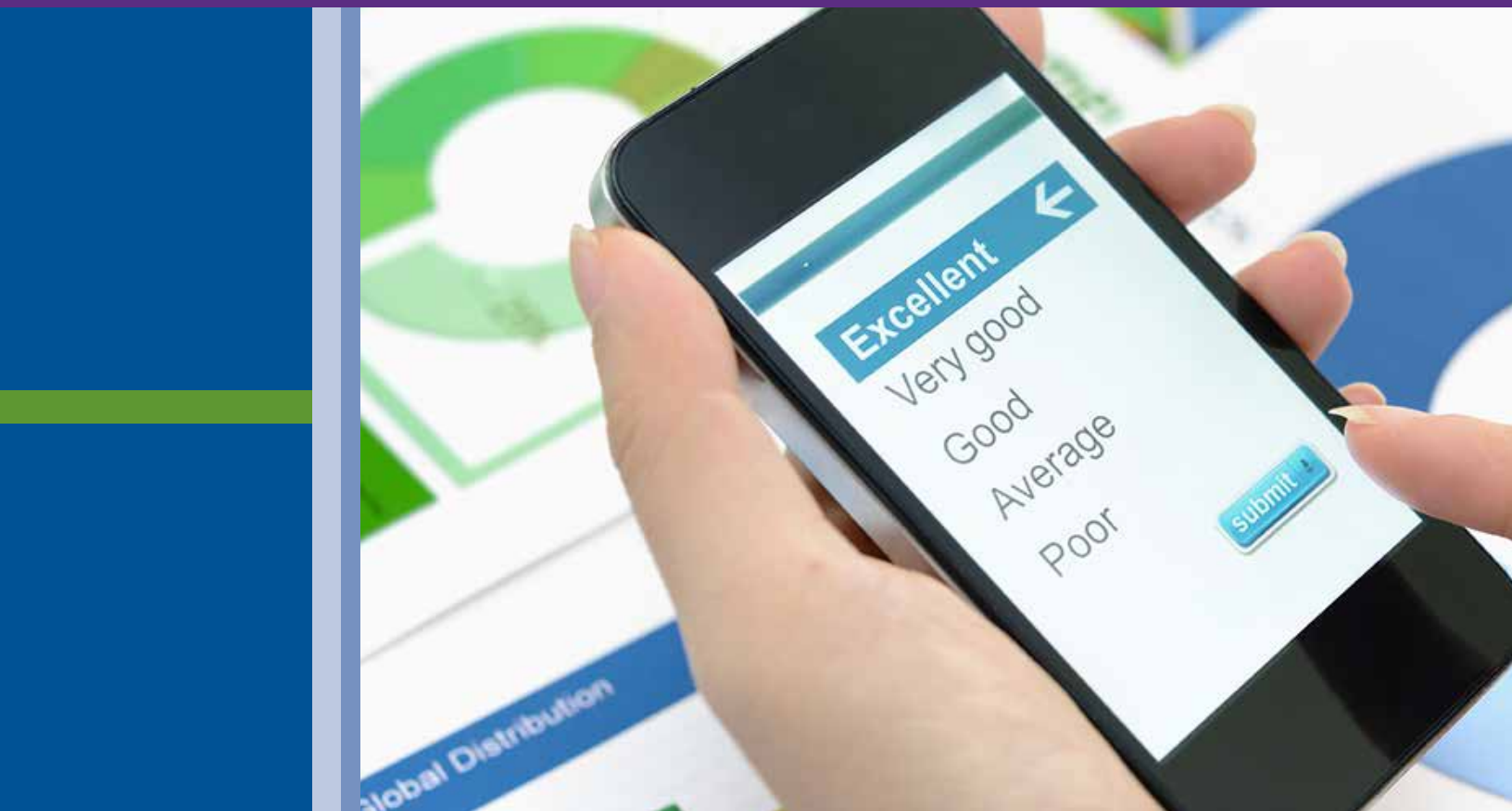
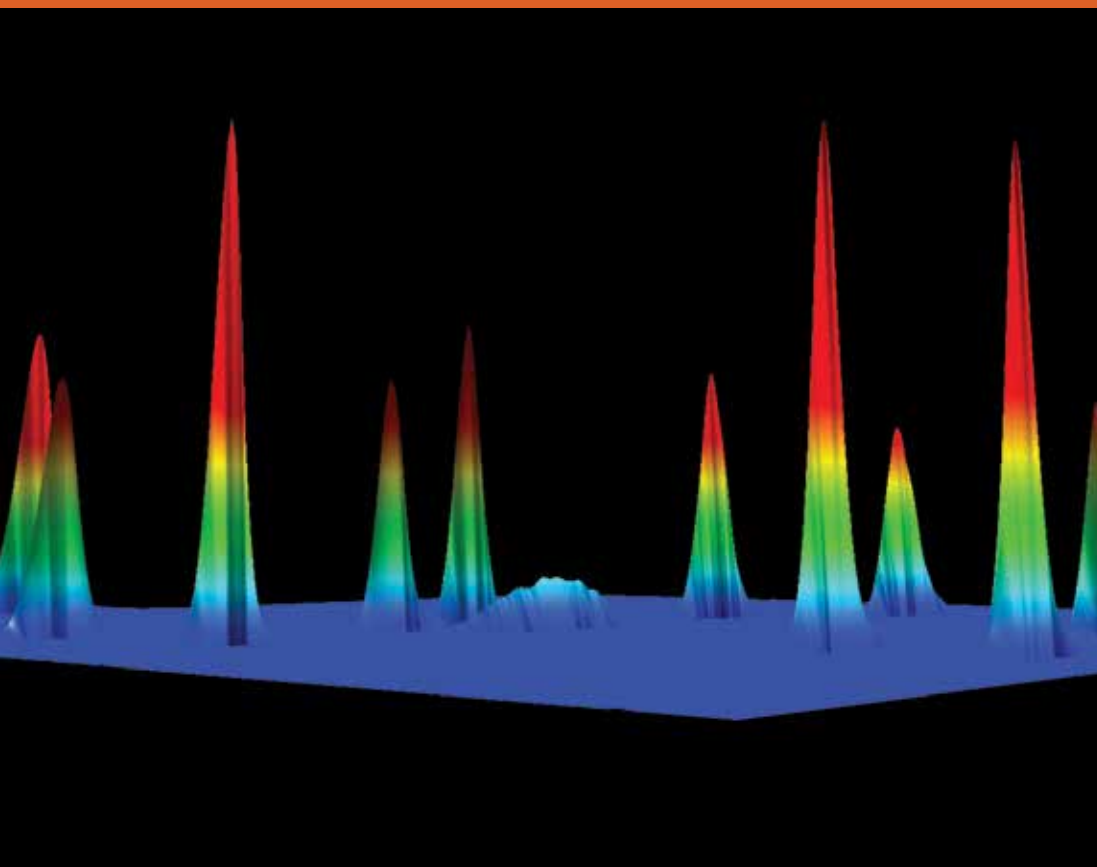


Metabolomics can reveal biomarkers for the early detection and diagnosis of disease, monitor therapeutic treatments, and provide insights into biological mechanisms. This service offers opportunities to collaborate with metabolomics researchers at RTI to discover biomarkers, reveal mechanistic insights, synthesize metabolite standards, determine characteristics of exposure, and receive training. RTI provides expertise in metabolomics, including guidance in study design, sample collection, data acquisition, multivariate and statistical analysis, visualization, pathway mapping, literature review, manuscript and grant preparation, training and outreach, and synthesis of standards.

## Patient and Caregiver Outcomes in Rare Disease Service



Translational research can be hampered by incomplete data on the consequences of a disease for patients and caregivers, and rare diseases are especially vulnerable to this problem. This service helps researchers accelerate cost-effective data collection on patient and caregiver outcomes in rare diseases. Building on RTI's successful development and application of a survey registry for other diseases, this service helps researchers create useful and flexible patient registries and supports existing registries to learn about the real-life consequences of disease.



## UNC-RTI NC TraCS Pilot Grant Program

NC TraCS 5K–50K pilot grants enable investigators to obtain preliminary data to support new applications for extramural funding. NC TraCS offers pilot grant funding for projects in which a UNC investigator and an RTI investigator collaborate as research partners. UNC investigators working in collaboration with an RTI investigator are eligible for up to \$25,000 for activities at UNC and \$25,000 for activities at RTI. For UNC-RTI pilot grant proposals, there is no UNC requirement for departmental matching funds. Applications for any aspect of clinical and translational research are encouraged.

### More Information

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For additional information about the RTI-UNC collaboration, please visit <http://tracs.unc.edu/RTI>

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### What Is NC TraCS?

The North Carolina Translational and Clinical Sciences Institute, the integrated home of the Clinical and Translational Science Awards (CTSA) program at UNC, is supported through the National Institutes of Health, grant 1UL1TR001111. The CTSA program is led by the NIH's National Center for Advancing Translational Sciences. NC TraCS is one of 62 CTSA medical research institutions.

NC TraCS combines the research strengths, resources, and opportunities of UNC, its partner RTI, and planning partner North Carolina Agricultural and Technical State University to accelerate clinical and translational research from health science discovery to dissemination to patients and communities. NC TraCS seeks to overcome barriers to translation by improving efficiency; training the research workforce; and sharing successful, validated research methods.