



NC TraCS **IMPACT REPORT**

APRIL 2023 to MARCH 2024



SCHOOL OF MEDICINE

North Carolina Translational and Clinical Sciences Institute

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PERSPECTIVES

FROM THE TRACS DIRECTOR



Dear Friends of NC TraCS,

Thanks for your interest in the work of the NC TraCS Institute, the home of clinical and translational science at UNC-Chapel Hill. With our partners North Carolina Agricultural and Technical State University (N.C. A&T) and North Carolina State University (NC State), our mission is to accelerate high-impact research to improve human health.

The enclosed report features recent contributions of NC TraCS to the health of North Carolinians, showcasing advancements made possible by the ingenuity of our researchers and staff and the robust infrastructure of our institute. Our most recent funding cycle, which began in April 2023, seeks specifically to accelerate progress in the science of translation—essentially “the science of doing science.” By gaining insights that can be applied across multiple different disease states, we aim to increase our impact and dismantle traditional barriers to cross-disciplinary collaboration.

We are particularly excited to share early progress with our new Clinical and Translational Science Research program, detailed on page 7 of this report. These projects demonstrate the diverse expertise being applied to roadblocks to scientific progress and highlight their potential for translating research into patient care. While changing the practice of medicine is a daunting challenge, truly impactful science will improve patient outcomes.

We hope you enjoy reading about our recent advances and plans for the next iteration of NC TraCS. This report encapsulates thousands of hours of effort by hundreds of dedicated staff, faculty, and collaborators committed to cutting-edge science. I am deeply grateful for their contributions. NC TraCS also benefits from the support of our parent academic institutions UNC-Chapel Hill, N.C. A&T, and NC State—and the NIH’s National Center for Advancing Translational Sciences (NCATS), our funding agency. I know we are all looking forward to what lies ahead.

To another year of great translational science,

A handwritten signature in blue ink, appearing to read 'N. Shaheen'.

Nick Shaheen, MD, MPH | PI & Director

ACCELERATING RESEARCH, IMPROVING HEALTH

NC TraCS is a grant-funded institute founded as a service to the research community—a catalytic partner that educates, funds, connects, and supports researchers at UNC-Chapel Hill and across the U.S.

We are part of the Clinical and Translational Science Awards (CTSA) consortium created by the NIH's National Center for Advancing Translational Sciences (NCATS) with a common mission to accelerate discoveries into interventions that improve the health of individuals and the public.

Together with our partners, we help advance the science of translation at UNC and beyond. We combine the research strengths, resources, and opportunities of the UNC-Chapel Hill campus and our partners: North Carolina State University in Raleigh and North Carolina Agricultural and Technical State University (N.C. A&T) in Greensboro.



ACCELERATING RESEARCH, IMPROVING HEALTH *cont.*

NC State's partnership brings valuable resources and broad expertise in engineering, comparative medicine, computer science, bioinformatics, and analytics. UNC-Chapel Hill and NC State share a joint department of biomedical engineering—and NC State's programs in veterinary medicine, electrical, chemical, materials, and systems engineering are heavily engaged in biomedical research.



N.C. A&T's work extends beyond their traditional disciplines of engineering and agriculture into the areas of leadership development, social and behavioral sciences, health disparities, evolutionary biology, and computational science. This partnership expands research collaboration for both universities.



Together, we are strategically designed to overcome barriers that historically have been responsible for fragmenting and delaying research efforts.

TraCS BY THE NUMBERS

REQUESTS | PUBLICATIONS | TRAINING

Since our inception in 2008, our institute has:



Supported more than **16,800** research requests from **3,690** researchers across **14** UNC Schools, **164** UNC departments and units, and over **200** external institutions



Been cited in over **3,393** scientific publications



Supported researchers with multiple requests (**56%** of researchers we help are repeat customers)



Provided upwards of **100** trainings annually with more than **3,000** participants



Supported over **300** data requests annually from the Carolina Data Warehouse for Health (CDW-H) with our EHR Data Service



PILOT AWARDS

\$481M

We have funded **1,100** pilots, supporting **2,000** unique investigators from over **100** departments and divisions at UNC, **10** UNC schools, **48** UNC centers and institutes, and more than **100** outside institutions in **7** countries

Our Pilot awardees have subsequently secured over **560** grants, generating a total of over **\$481,000,000** for UNC



CAREER DEVELOPMENT

Since 2008, we have trained **122** individuals in clinical and translational science and providing nearly **\$30 million** in funding

- **92** K Scholars
- **27** T Scholars
- **2** CTSA Supplemental Scholars
- **1** State-funded Participant

91% of K scholars have gone on to attain subsequent funding as a PI or other role



ENGAGEMENT, RECRUITMENT, AND INCLUSION IN RESEARCH

300-person strong community and patient network informing all aspects of research at UNC, with our partners, and across North Carolina

Facilitated **37** meetings with **275** community/patient partners to elicit their feedback on UNC research studies

Trained nearly **400** researchers representing over **40** institutions/organizations in our Engagement in Research Training Series

(since 2022)

Since its 2020 inception, [Research for Me @ UNC](#):

- Connected registered users to **1,377** study teams over **65,700** times
- Recorded over **19,000** users who have visited the site, **3,508** users registered, and **175** study teams have taken advantage of the website for recruitment
- Served research volunteers in **94 out of 100** North Carolina counties

INSIGHTS INTO IMPACT:

ADVANCING TRANSLATIONAL SCIENCE

Our vision at NC TraCS is to promote a healthier North Carolina through innovation. Realizing this vision requires advancing translational science, with a particular focus on driving discoveries that change practice and policy. Ultimately, our work strives to eliminate barriers to the rapid translation of research findings, ensuring that the best evidence reaches our patients and their communities.

We have designed a **Clinical and Translational Science (CTS) Research Program** (*described below*) to systematically test hypotheses and address significant roadblocks to translation. The **CTS Pilot Award Program** (*pg. 10*) has provided seed funding for smaller, high-risk, high-reward projects. And funding from NCATS has led to the establishment of a new center to research the quality and sustainability of virtual health care services (*pg. 11*). Additionally, we have designed innovative training programs, tools, and services to improve the quality of clinical and translational science conducted here and around the country (*pg. 12*). Our programs effectively address every stage of the translational science spectrum, from basic research to public health (*pg. 15*).

Clinical and Translational Science (CTS) Research Program

The Clinical and Translational Science (CTS) Research Program supports research projects addressing both a translational research question in a particular disease or intervention category and a clinical and translational science roadblock. Aligned with our mission of catalyzing research from bench to bedside, this program aims to support innovative ideas that can improve the overall efficiency or effectiveness of translation efforts. Each CTS Research project is funded between \$125,000-\$250,00 per year in direct costs for up to three years. On the next two pages, we describe the two ongoing CTS Research Program Projects.



For upcoming opportunities, submission dates, and RFA, visit tracs.unc.edu/services/cts-research-program.

ADVANCING TRANSLATIONAL SCIENCE cont.

1

Project 1: Transforming Cancer Care with Personalized Risk Prediction

Jennifer Elston Lafata, PhD, a professor of pharmaceutical outcomes and policy, and Jacob Stein, MD, MPH, an assistant professor and medical oncologist, are leading an innovative project to transform cancer treatment through predictive modeling.

Their team includes experts in pharmacy, oncology, informatics, data science, and biostatistics working together to create a novel Oncology Risk-Stratified Intervention System. This system personalizes patient care by anticipating individual risks and needs, integrating routinely collected electronic health records data with expert clinical insights to predict which cancer patients are more likely to experience acute events or complications during treatment.

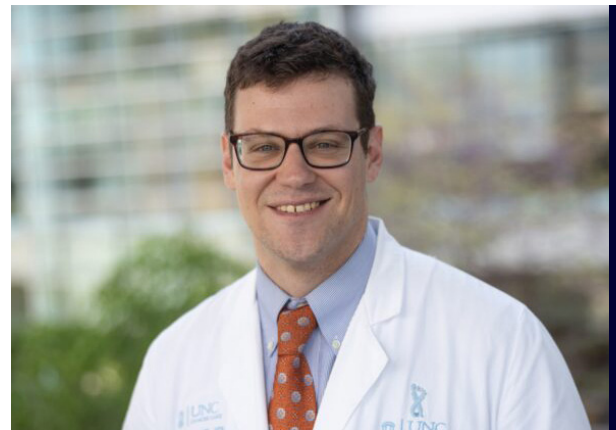
By making patient care more tailored and effective, the team aims to reduce unexpected hospital visits and improve treatment outcomes, ultimately streamlining healthcare delivery. This innovative approach is expected to extend beyond oncology, offering valuable insights for enhancing care across various medical fields.

To ensure the system is practical and can be effectively integrated into clinical practice, the project is supported by a Clinical Advisory Panel. This panel—comprised of oncologists, nurses, pharmacists, and patients—provides regular feedback to help refine the system's approach.

Read more: [Charting a new path to help cancer patients](#)



Jennifer Elston Lafata, PhD
UNC Eshelman School of Pharmacy



Jacob Stein, MD, MPH
UNC School of Medicine

ADVANCING TRANSLATIONAL SCIENCE cont.

2

Project 2: Enhancing Health Research with Better Data on Social Determinants of Health

Barbara Entwisle, PhD, a distinguished professor of sociology, and Emily Pfaff, PhD, an assistant professor and a health informatics expert, are championing a project to improve how social factors affecting health are measured and used in biomedical research. The project team includes experts from sociology, medicine, public health, and pediatrics, with collaboration from the U.S. Census Bureau.

Social determinants of health (SDoH)—such as income, education, and living conditions—play a crucial role in patient outcomes. Yet the data on these factors can often be inconsistent and biased. This project will investigate these biases by comparing three types of SDoH data: patient-reported EHR data, census tract-level data, and personal data from the American Community Survey. This newly merged dataset will enable researchers to look for discrepancies and biases among sources and explore how SDoH factors affect diabetes outcomes across different populations.

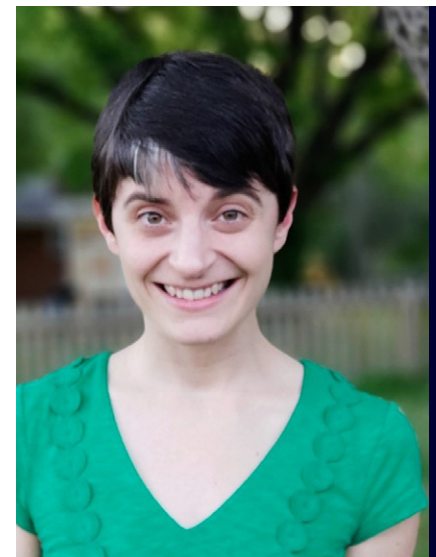
Ultimately, this project aims to develop resources for clinical researchers and healthcare providers. These resources will include clear guidelines on the strengths and limitations of various SDoH data sources, an analytical toolkit for effective use of SDoH data, and recommendations for improving SDoH data collection to enhance patient care and research accuracy.

To ensure the project's relevance to clinical researchers, practitioners, and patients, it is supported by the NC TraCS Patient and Community Engagement in Research (PaCER) Program and the NC TraCS Community and Patient Advisory Board.

Read more: [Fine-tuning the social side of health research](#)



Barbara Entwisle, PhD
UNC College of Arts & Sciences



Emily Pfaff, PhD
UNC School of Medicine

ADVANCING TRANSLATIONAL SCIENCE cont.

Clinical and Translational Science (CTS) Pilot Award program

The NC TraCS Clinical and Translational Science (CTS) pilot award program supports the field of investigation focused on understanding the scientific and operational principles underlying each step of the translational process so that advances can be applied to research on any target or disease.

In Grant Year 1, we funded five pilot projects:



Malia Blue, PhD



Shelby Baez, PhD

Feasibility and Validity of Smart Ring Technology to Reduce Barriers for Assessment of Physical and Mental Health and Well-Being

Exercise & Sports Science | UNC College of Arts & Sciences



Elizabeth Corteselli, PhD

Development of an Organotypic Co-Culture Model for Testing of Inhaled Therapies for Respiratory Disease

Allergy/Immunology | UNC School of Medicine



Weili Lin, PhD

Large Language Models to Facilitate Developing AI Approaches Identifying Abnormalities Within Medical Images

Radiology & Biomedical Engineering | UNC School of Medicine



John Batsis, MD

Using Ultrasound to Evaluate Muscular Characteristics in Older Adults and their Correlations with Function

Geriatrics | UNC School of Medicine



Laura Milko, PhD

Promoting Research Participation in Marginalized Communities through Community Outreach and Engagement

Genetics | UNC School of Medicine

ADVANCING TRANSLATIONAL SCIENCE cont.

Specialized Innovation Program — RC2 Awards

Virtual care—the use of online services, remote monitoring, and text-based messaging to deliver health care services remotely—has increased in popularity due to the COVID-19 pandemic. However, there are still many challenges to adopting and sustaining this method of care and more research is needed to create feasible and sustainable virtual care systems.

With funding from an NCATS Specialized Innovation Programs RC2 Award, researchers at UNC-Chapel Hill are creating the foundation needed to support the advancement of translational research in this field.

The [Center for Virtual Care Value and Excellence \(ViVE\)](#) is building a repository of real-world virtual care data not previously available to researchers. The center is also developing frameworks to guide investigators through the design, implementation, and evaluation of virtual care research—offering training and support throughout the process.

ViVE's library of real-world data coupled with implementation and evaluation frameworks will accelerate research in virtual care.

The Center will also leverage partnerships across the broader CTSA program network by producing resources and information that will fill critical gaps in health access. The network will help disseminate and promote ViVE tools, educational resources, and training events.



Saif Khairat, PhD, MPH
UNC School of Nursing

"TraCS plays an important role on campus, and I often work with TraCS to extract big data. TraCS funding has also helped facilitate my development as a researcher."

– Saif Khairat, PhD, MPH (PI, ViVE Center)

ADVANCING TRANSLATIONAL SCIENCE cont.

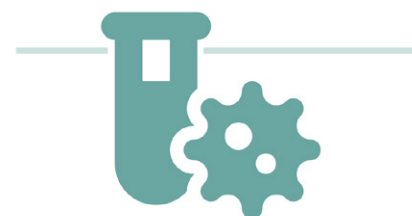
Innovative Initiatives

NC TraCS is a source of innovation—both on our campus and nationally—developing a variety of new training programs, tools, and services to improve the quality of clinical and translational science.

Digital badging

Given the lack of understanding of clinical and translational science (CTS) careers, we are developing “Introduction to CTS Careers” content for digital badging. This initiative addresses the lack of skills among CTS workers for advancement and retention. The online, self-paced badge will provide a more flexible and personalized “point of entry” to learn about CTS careers, the academic CTS environment, and required preparation for different roles.

Introduction to CTS Careers



We will include videos from successful researchers who represent a wide variety of backgrounds as well as exercises to help learners recognize the breadth of CTS research and to identify role models and transferrable skills they can apply to CTS. The digital badge “Introduction to CTS Careers” content has been drafted, and we are working with the UNC Office of Digital and Lifelong Learning to create the badge itself and interactive components.

Data models and data access

The Observational Medical Outcomes Partnership (OMOP) is a data model for transforming diverse healthcare data into a common format. OMOP makes it easier for data analysts to extract data efficiently, and the robust documentation will make it easier for researchers to understand the data.

NC TraCS established an OMOP-based data mart that contains UNC Health electronic health record (EHR) data formatted in the OMOP data standards. We completed our first OMOP request in July 2023 for the NIH *All of Us* study and expanded available data to include patient-reported social determinants

ADVANCING TRANSLATIONAL SCIENCE cont.

of health. OMOP is the lynchpin of our strategy to facilitate data sharing across the CTSA consortium.

Demand for data is increasing, and there is a clear need to broaden access to data safely. To meet this need, we built the OMOP Repository of Data for Research: De-identified (ORDR-D), a deidentified data enclave that will allow UNC researchers with coding ability to be more self-sufficient with EHR data requests. This resource will help address data access bottlenecks.

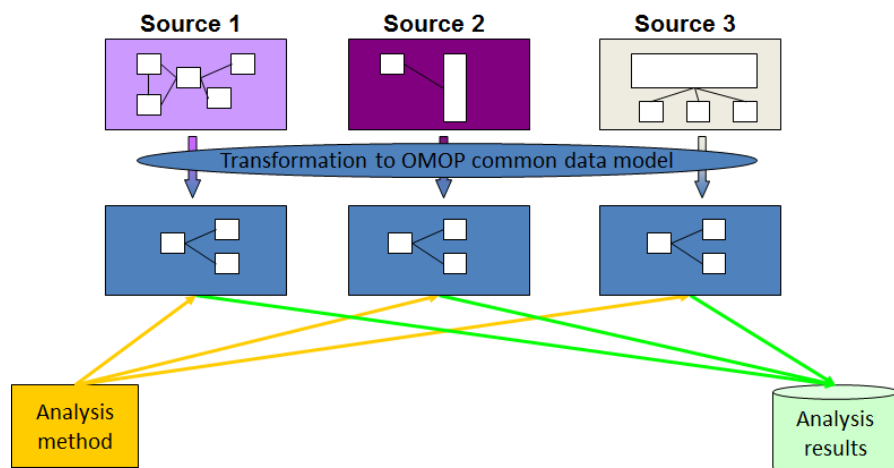
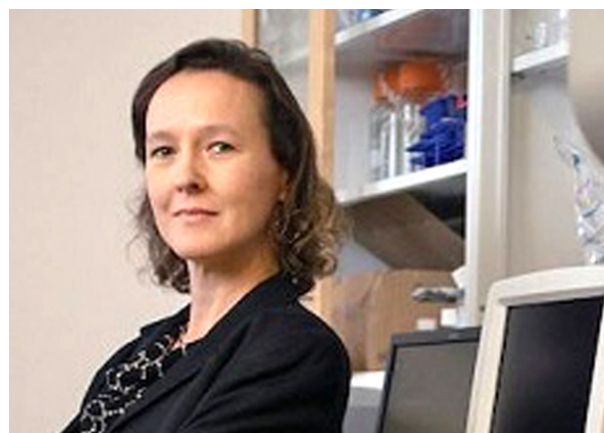


Fig. Once a database has been converted to the OMOP Common Data Model (CDM), evidence can be generated using standardized analytics tools. The CDM can accommodate both administrative claims and EHR—allowing users to generate evidence from a wide variety of sources.

Data linkage

The EHR, while rich with data about illness, provides a narrow window into patients' lives. Data from other sources such as insurance claims, environmental data, and socioeconomic data must be incorporated to create a fuller picture. NC TraCS is creating standardized and replicable approaches for integrating these data with EHR data, starting with geographic and socioeconomic data. Thus far, we have geocoded patient addresses to the Census tract level and developed a service to pre-link area-level socioeconomic variables to EHR data.

With UNC faculty member Rebecca Fry, we will expand our linkage-ready data project to include environmental data. This project will link “forever chemicals” (per- and polyfluoroalkyl substances) exposure data and private well water data to clinical data to study health outcomes including cancer, diabetes, and preterm birth. The prevalence of these critical disease endpoints will be visualized using the NC ENVIROSCAN tool, which allows users to capture trends in environmental contaminants across North Carolina.



Rebecca Fry, PhD

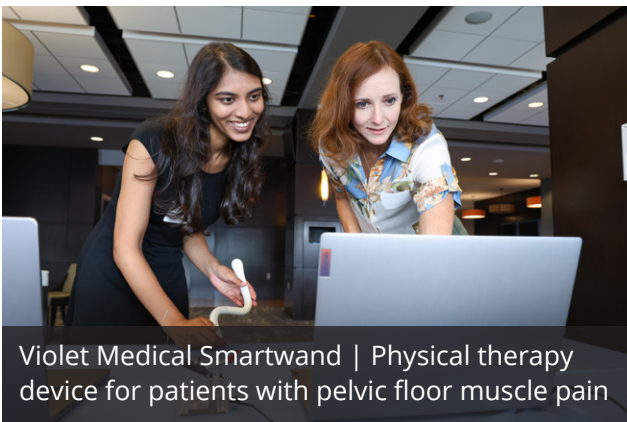
UNC Gillings School of Global Public Health

ADVANCING TRANSLATIONAL SCIENCE cont.

Commercialization and FemTech

FastTraCS, the medtech incubator at NC TraCS, brings together experts from across clinical disciplines to develop groundbreaking solutions aimed at improving patient care and enhancing community health outcomes. Our FemTech Initiative seeks to address equity in women's health by promoting the translation of research and clinical practice into commercialization. This initiative actively promotes FemTech commercialization by focusing on high-impact areas in maternal, reproductive, pelvic, and global women's health.

For example, the *FemTech Collaborative Series* aims to amplify visibility; forge connections among researchers, entrepreneurs, and projects; and bolster the support structure for FemTech innovations. Through a series of events, organizers at FastTraCS are addressing critical issues such as fundraising strategies, the need for best practices in FemTech development, and the challenges of translating innovative ideas into viable commercial products.



Photos from FemTech 2024

Read more: [FemTech solutions at FastTraCS Demo Day](#)

INSIGHTS INTO IMPACT: TRANSLATIONAL SCIENCE AT EVERY STAGE

Basic research: Multi-CTSA project creates a microcosm of the brain to propel neuroscience research

By creating a microcosm of the brain on the lab bench, brain slice technology maintains much of the complexity that makes studies in animal or human subjects so insightful, while providing the ease and efficiency of research done in a dish. This creates a powerful platform for accelerating neuroscience research—one that is now being applied across the three universities to study diseases ranging from cancer to stroke to Alzheimer's disease. [Project Brainslice](#) is a joint effort between NC TraCS and the clinical and translational science institutes at Duke University and the University of Florida under a U01 grant through NCATS.



[More about Project Brainslice](#)

Technology development: Incubator spins out “smart retainer” to facilitate speech therapy

With the help of FastTraCS, the medtech incubator at NC TraCS, researchers at UNC have created a medical device to help children born with a cleft lip or palate learn to speak clearly.

Adams School of Dentistry researchers Rishma Shah, PhD, BDS, MSC (craniofacial orthodontist) and Lynn Fox, MA, MEd, CCC-SLP (associate professor and speech pathologist) and colleagues developed a Bluetooth-enabled retainer that can facilitate speech therapy by tracking tongue placement along the palate and encouraging correct articulation.



[More about the smart retainer](#)



Rishma Shah, PhD, BDS, MSC
UNC Adams School of Dentistry

TRANSLATIONAL SCIENCE AT EVERY STAGE cont.

The retainer will eventually be paired with a smartphone game to help patients practice their speech therapy—giving these kids motivation and feedback as they learn how to articulate clearly.

Clinical trials: Fingertip oxygen sensors that work on dark skin

Wubin Bai, PharmD, MS, BCPS, an assistant professor and materials scientist, is leading a team that is testing a new pulse oximeter that would improve the accuracy of blood oxygen saturation measurement in patients of color. Patients with darker skin are 32% more likely to have oximeter readings overestimate oxygen levels. The MABOS (Melanin-Adjusted Blood Oxygen Sensor) project aims to address measurement accuracy in pulse oximetry by incorporating a third wavelength of light that adjusts the measurement of oxygen-saturated hemoglobin (SpO2) based on the presence of melanin, a pigment in the skin that varies with different skin tones.



Wubin Bai, PharmD, MS, BCPS
UNC College of Arts & Sciences

The NC TraCS Biostatistics team is advising the team on efforts to mitigate skin-tone effects for the wearable oximeter. The Regulatory team has helped with issues related to consenting patients in the ICU setting—particularly challenging as subjects there may not be able to provide their own consent.

FDA approval: Multi-faceted expertise enables landmark study of new food allergy drug

The NC TraCS Clinical and Translational Research Center (CTRC) provided space and skilled nursing staff for the [OUtMATCH clinical trial](#), a multi-site study of a new drug for life-threatening food allergies.

Stage one results from the clinical trial, published in the *New England Journal of Medicine*, showed that



[More about the OUtMATCH clinical trial](#)

TRANSLATIONAL SCIENCE AT EVERY STAGE cont.

a monoclonal antibody, omalizumab, increased the amount of peanut, tree nuts, egg, milk, and wheat that multi-food allergic children as young as age one could consume without an allergic reaction. Contributing authors from the UNC School of Medicine included Corinne Keet, MD, PhD, professor of pediatrics; Mike Kulis, PhD, pediatric allergy and immunology associate professor; and Edwin Kim, MD, director of the UNC Food Allergy Initiative at the UNC School of Medicine.

In early 2024, the FDA approved omalizumab for the reduction of allergic reactions, including anaphylaxis, that may occur with an accidental exposure to one or more foods in adults and children aged 1 year and older with food allergies.

Public health: Population and data science methods address cancer disparities

Caroline Avery Thompson, PhD, MPH, an associate professor and cancer epidemiologist, is studying the factors that contribute to delays in cancer diagnosis for underserved populations. The NC TraCS Informatics and Data Science program helped Thompson mine clinical health records for potential participants for a case-control study of UNC Health ovarian cancer patients. This project could result in an improved understanding of pre-hospital delays for cancer diagnosis in rural and impoverished settings, such as those encountered frequently in North Carolina.



Caroline A. Thompson, PhD
UNC Gillings School of Global
Public Health



SPOTLIGHT ON SCHOLARS

Gene Orringer Junior Faculty Career Development Program (TraCS K12)

The NC TraCS K12 Program trains and develops early-stage investigators to conduct translational science. The scholars conduct translational science projects and receive training to develop leadership and mentoring skills in the principles of translational science with input and support from their mentors, the program co-PIs, and affiliated faculty and staff. Meet the scholars from Grant Year 1 (*pg. 19-20*).

K12 Co-PIs



Michelle Hernandez, MD
Professor of Pediatrics
UNC School of Medicine



Jon Juliano, MD, MSPH, DTM&H
Professor of Medicine
UNC School of Medicine

K12 Metrics

92

Scholars since 2008

\$27M

in funding support

57%

Women

11%

Underrepresented
minorities

91%

have attained
subsequent funding

SPOTLIGHT ON SCHOLARS cont.



Bianca Allison, MD

Developing a Novel Adolescent-Centered Contraceptive Counseling Training Program for Pediatric Providers to Maximize Reproductive Autonomy

Pediatrics
UNC School of Medicine



Allison Burbank, MD

Early Detection of Deteriorating Asthma Control in Adolescents Using Mobile Health Technology

Pediatrics, Allergy/Immunology
UNC School of Medicine



Kelly Caravella, PhD

Expediting Enrollment into Autism Specific Intervention for Black Toddlers: A Telehealth-based Family Navigation Approach

Psychiatry
UNC School of Medicine



Matthew Egberg, MD

Molecular Phenotyping of the Pediatric Inflammatory Diseases

Pediatrics, Gastroenterology
UNC School of Medicine



Owen Fenton, PhD

Pre-Clinical Evaluation of mRNA Lipid Nanoparticle Therapies

Pharmacoengineering and Molecular Pharmaceuticals
UNC Eshelman School of Pharmacy

SPOTLIGHT ON SCHOLARS cont.



Andrew Satterlee, PhD

Advancing the Organotypic Brain Slice Culture Platform toward Functional Precision Diagnosis of Brain Tumors

UNC Eshelman School of Pharmacy



Stephen Schworer, MD, PhD

Defining the Microenvironment of Asthmatic Airways Using an Airway Explant System

Allergy/Immunology
UNC School of Medicine



Andrea Waltmann, PhD

Integration of Controlled Human Infection Models and Emergent Single-cell Technologies for Accelerated Precision Vaccinology of Difficult Pathogens

Infectious Disease
UNC School of Medicine



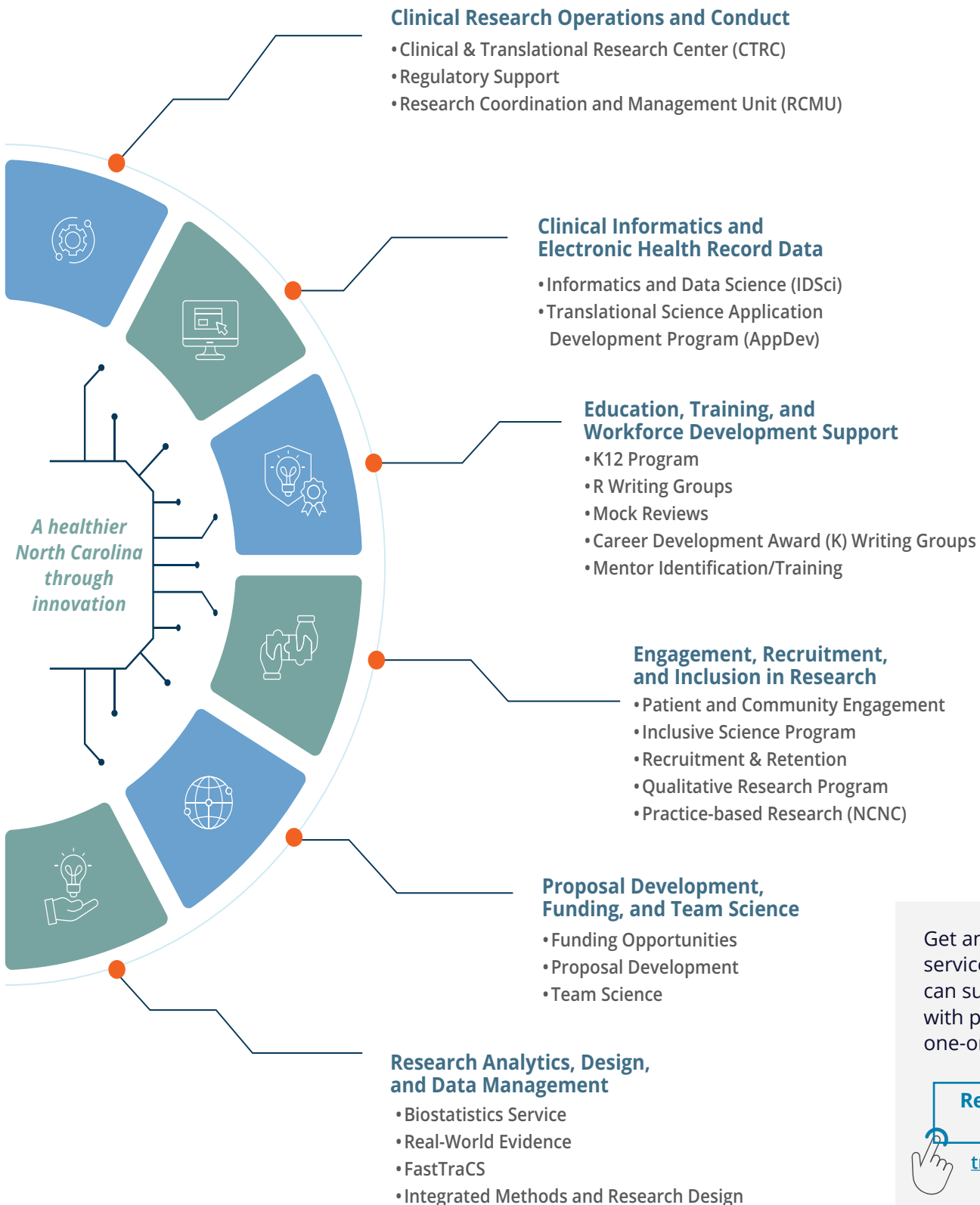
Morika Williams, DVM, PhD

Long-Term Effects of Early Life Injury-Induced Pain on Later Life Chronic Pain Mechanisms

Pathology and Lab Medicine
UNC School of Medicine

NC TraCS SERVICES & PROGRAMS

To promote our mission of accelerating impactful research, NC TraCS organizes our collective activities into six categories.



Get an overview of TraCS services and learn how we can support your project with personalized, one-on-one guidance.

Request a Service Consultation

tracs.unc.edu/request

EXPLORING OUR CITATIONS

SCHOLARLY PRODUCTIVITY AND REACH

April 2023 to March 2024

357

Scientific publications supported by NC TraCS

NC TraCS-supported publications featured in

1,421

news stories

916

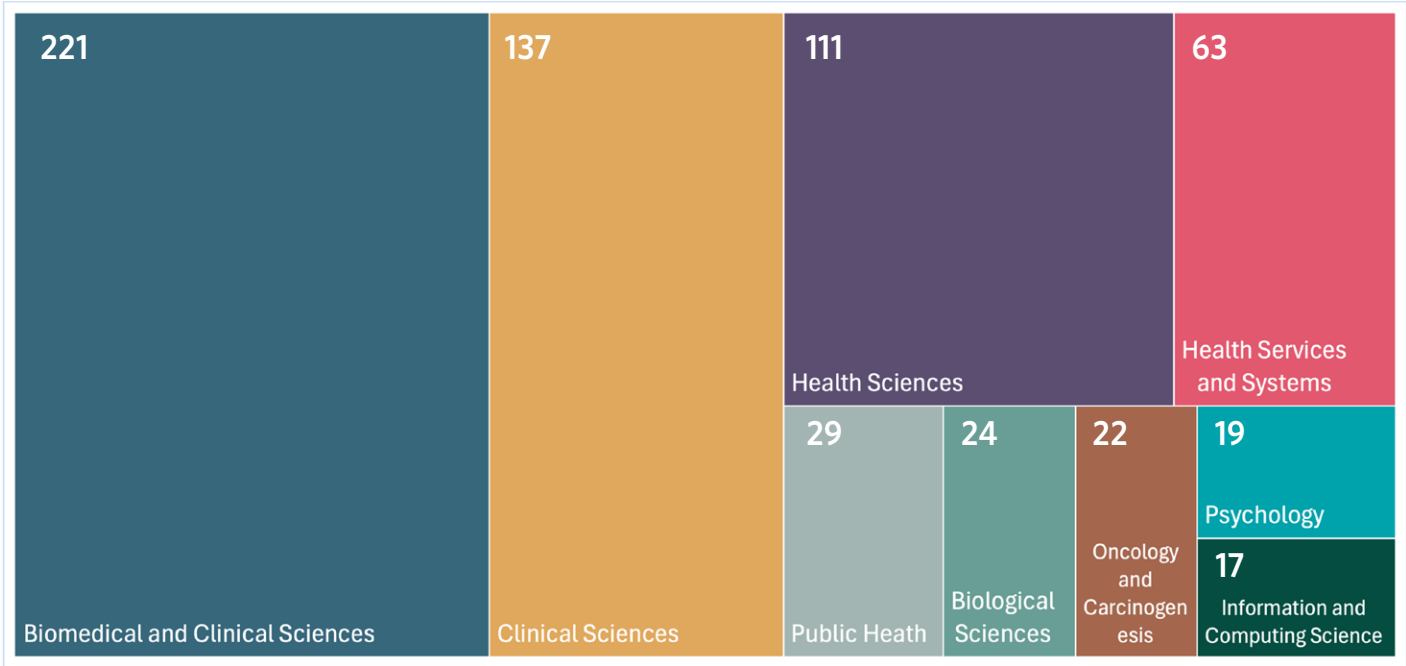
Total citations of NC TraCS-supported research

NC TraCS-supported publications featured in

22,558

X (formerly known as Twitter) posts by 15,255 unique X users in 135 countries

Top 10 Most-popular subject areas published by NC TraCS-supported researchers



Data April 1, 2023 - March 31, 2024 | Number of publications by subject area

EXPLORING OUR CITATIONS cont.

High Impact NC TraCS-Supported Publications (April 2023 to March 2024)

1. Bramante, C. T., Buse, J. B., Liebovitz, D. M., Nicklas, J. M., Puskarich, M. A., Cohen, K., ... & Zinkl, L. (2023). **Outpatient treatment of COVID-19 and incidence of post-COVID-19 condition over 10 months (COVID-OUT): a multicentre, randomised, quadruple-blind, parallel-group, phase 3 trial.** *The Lancet Infectious Diseases*, 23(10), 1119-1129.

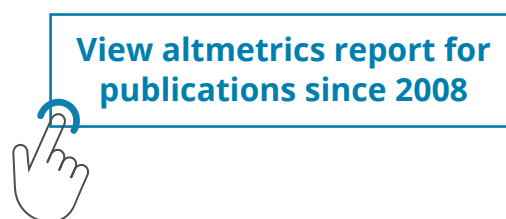
The COVID-OUT study, published in *The Lancet Infectious Diseases*, is a multi-center, randomized clinical trial that investigated the effectiveness of various treatments in reducing long-term COVID-19 symptoms in patients over a 10-month period. The study's findings highlight the potential for certain outpatient treatments to significantly lower the risk of developing long-term post-COVID-19 conditions, underscoring the importance of early intervention in managing COVID-19.

2. Wood, R. A., Togias, A., Sicherer, S. H., Shreffler, W. G., Kim, E. H., Jones, S. M., ... & Chinthrajah, R. S. (2024). **Omalizumab for the treatment of multiple food allergies.** *New England Journal of Medicine*, 390(10), 889-899. [CTRC]

This study published in the *New England Journal of Medicine* investigates the efficacy of omalizumab, a monoclonal antibody, in treating multiple food allergies. Led by Wood et al., the clinical trial aimed to determine if omalizumab could safely reduce allergic reactions to various foods. The study's findings suggest that omalizumab significantly improves tolerance to multiple food allergens, offering a promising therapeutic option for individuals with complex food allergy profiles.

3. Brannock, M. D., Chew, R. F., Preiss, A. J., Hadley, E. C., Redfield, S., McMurry, J. A., et. al. (2023). **Long COVID risk and pre-COVID vaccination in an EHR-based cohort study from the RECOVER program.** *Nature Communications*, 14(1), 2914.

This study published in *Nature Communications*, investigates the relationship between pre-COVID-19 vaccination and the risk of developing long COVID. Led by Brannock et al., the research utilizes electronic health record data to analyze the impact of vaccination on long-term COVID-19 symptoms. The findings reveal that pre-COVID vaccination significantly reduces the risk of long COVID, highlighting the importance of vaccination in mitigating prolonged health impacts of the virus.



JOIN US IN MAKING AN IMPACT

Thank you for taking the time to read our Impact Report. We are incredibly proud of what we've achieved together in the last year and are excited about the opportunities ahead.

Explore the multitude of opportunities to collaborate with us across our diverse array of services, resources, and programs. Whether you're seeking support for research projects, access to specialized training, or seek pathways to develop and commercialize a product, NC TraCS is here to facilitate collaboration and foster innovation.

Our team provides solutions and fosters partnerships that drive translational science forward. Let's work together to achieve your research goals and make meaningful contributions to advancing healthcare and improving patient outcomes.

Explore opportunities with us

Learn more about our services, resources, and programs:

tracs.unc.edu/services

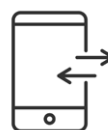
Stay connected and learn more about our institute by attending our events:

tracs.unc.edu/calendar

Contact us



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919.966.6022



NCTRACS@UNC.EDU



FACEBOOK.COM/NCTRACS

BETTER TOGETHER

WE ARE BETTER TOGETHER THAN WE ARE APART.

Thank you

*for your continued
support and partnership.*

CTSA Clinical & Translational[®]
Science Awards

NC TraCS is funded by the Clinical and Translational Science Awards (CTSA) Program from the National Center for Advancing Translational Sciences, National Institutes of Health, grant **UM1TR004406**.

Additional funding for NC TraCS comes from UNC Health, the State of North Carolina, Lineberger Comprehensive Cancer Center, UNC School of Medicine, UNC Office of the Provost, and the UNC Office of the Vice Chancellor for Research & Economic Development.

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