



Atlanta Clinical & Translational Science Institute

# Community – Discovery – Training

NIH FUNDED CLINICAL AND TRANSLATIONAL SCIENCE AWARD



EMORY  
UNIVERSITY



MOREHOUSE  
SCHOOL OF MEDICINE



Georgia Institute  
of Technology

# Atlanta Clinical & Translational Science Institute Leadership

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**MISSION** | *Through focused education and training, innovative support of discovery, and ethical community engagement, the collaborative partners of the Atlanta Clinical & Translational Science Institute rapidly and efficiently translate scientific discoveries to impact all populations of the Atlanta community and beyond.*

# About ACTSI

The **Atlanta Clinical & Translational Science Institute (ACTSI)** of *Emory University*, and partners *Morehouse School of Medicine (MSM)*, and *Georgia Institute of Technology (Georgia Tech)*, is a member of a national consortium striving to improve the way biomedical research is conducted across the country. The consortium, funded through the National Center for Advancing Translational Sciences and part of the National Institutes of Health's Clinical and Translational Science Awards (CTSA), shares a common vision to translate laboratory discoveries into treatments for patients, engage communities in clinical research efforts, and train the next generation of clinical investigators.

To fortify and accelerate the process of bringing scientific discoveries to patients, the ACTSI supports programs aimed at freeing the talents of clinical and translational investigators by providing *infrastructure, regulatory support, funding, and better access to analytical tools, education, and training*. For investigators, this translates into reduced barriers and the development of multidisciplinary collaborations within research centers. For the community, this means improved diagnosis and treatments.

## Research Resources

ACTSI works to break down obstacles in the translational science pipeline, from laboratory to patient care. ACTSI programs provide Emory, MSM, and Georgia Tech investigators with access to:

- A variety of *funding opportunities* to support innovative research projects, events, and community-based organizations
- Dedicated *clinical research units* throughout metro Atlanta with specialized staff and resources
- *Training and career development* for the next generation of clinical and translational scientists
- *Regulatory strategies* and submission assistance
- Research participant *recruitment assistance*
- Linkage to high-impact, emerging *technologies*
- Expertise, problem solving, and consultation in ethics, biostatistics, epidemiology, research design, biomedical informatics, pediatric research, clinical trials, and community engagement





## Programs

Since receiving the CTSA in 2007, the ACTSI partners have established a supportive research infrastructure focused on community, discovery, and training. These programs are:

- Clinical Research Network (CRN)
- Research Education, Training, & Career Development (RETCD)
- Community Engagement Research Program (CERP)
- Ethics & Regulatory
- Research Technologies
- Pilot Grants
- Biostatistics, Epidemiology, & Research Design (BERD)
- Biomedical Informatics Program (BIP)
- Pediatrics

## Partners

Through the Emory, MSM, and Georgia Tech partnership, laboratory and physician investigators and educators can accelerate the pace of bringing basic research findings to patients and communities.

### Key ACTSI Partners:

- Centers for Disease Control and Prevention
- Children's Healthcare of Atlanta
- Georgia Bio
- Georgia Research Alliance
- Georgia State University
- Grady Health System
- Kaiser Permanente Georgia
- University of Georgia Complex Carbohydrate Research Center
- Veterans Affairs Medical Center of Atlanta
- Winship Cancer Institute
- Yerkes National Primate Research Center

Visit [www.ACTSI.org](http://www.ACTSI.org) for more information





# Clinical Research Network (CRN)

The Clinical Research Network (CRN) facilitates clinical and translational research by supporting the needs of ACTSI investigators at hospital, medical office, and community-based sites across Atlanta.

Given the dispersed nature of the Atlanta research community and the ACTSI's goal to actively engage the community in bidirectional research translation, a geographically distributed CRN with research space availability was created to meet the needs of translational and clinical investigators from Emory University, Morehouse School of Medicine (MSM), Georgia Institute of Technology (Georgia Tech), Kaiser Permanente Georgia (Kaiser), and Children's Healthcare of Atlanta (Children's).

## Tier 1: Hospital-based Clinical Research Sites

- Emory University Hospital
- MSM Clinical Research Center\*
- Grady Memorial Hospital\*
- Emory University Hospital Midtown
- Atlanta VA Medical Center
- South Fulton Medical Center
- Wesley Woods Geriatrics Center and Sleep Disorders Unit
- Emory-Georgia Tech Center for Health Discovery & Well Being
- Winship Cancer Institute Phase 1 Unit
- Emory Saint Joseph's Hospital, Cardiovascular Research Institute
- Emory Emergency Department Research Program

## Tier 2: Medical Office-based Clinical Research Sites

- Mason Outpatient Transplant Unit
- Emory-Children's Cystic Fibrosis Center of Excellence
- Emory ALS Center
- Emory Ophthalmology Research Program
- Grady Ponce Center
- Morehouse Healthcare
- Community Physicians' Network
- Hope Clinic

- Kaiser Permanente Georgia
- Grady Diabetes Clinic
- Emory Autism Center
- Georgia Tech Research Institute

## Tier 3: Community-based Clinical Research Sites

- Southside Community Health Center
- Grady East Point Neighborhood Clinic
- West End Medical Center
- Oakhurst Community Health Center
- Emory Metabolic Genetics & Nutrition Program-LSD, Fragile X, Downs Syndrome Clinics
- Atlanta VA Community Clinics

## Pediatric Clinical Research Sites

- Children's at Scottish Rite (future)
- Children's at Egleston
- Emory-Children's Center
- Children's at Hughes Spalding (future)

*\*Also Pediatric Sites*

## Associated Laboratory Sites

- Emory Clinical & Translational Research Laboratory
- Emory Integrated Genomics Core





## CRN Resources

The **CRN nursing staff** consists of experienced, registered nurses. Nursing services include but are not limited to:

- Study protocol review for nursing efficacy and safety
- Nursing assessment and evaluation
- Medication administration and participant teaching
- Early-Phase and routine investigational drug infusions
- Assistance with and monitoring of invasive procedures
- Basic and pharmacokinetic blood sampling
- Routine and complex vital sign monitoring



The **CRN Core Laboratories** are CLIA-waived with a Nautilus-based Laboratory Information Management System (LIMS). Lab expertise is available on-site for protocol development, set-up, and initiation. Point of care testing, biological sample processing, aliquotting, and short- and long-term storage also are available.

The **CRN Bionutrition Unit** is available for investigators interested in dietary intake assessment in research subjects, conducting feeding studies, measurement for energy expenditure and body composition, and exercise capacity and is staffed by an experienced research nutritionist. Facilities for ultrasound, vascular, treadmill, and DEXA measurements are housed in the unit.

**CR-Assist** is designed to help ACTSI investigators/coordinators manage participants, track study visits, submit electronic appointment requests, and print day-to-day orders and sample collection labels.

A **Studio Consultation** offers multidisciplinary assessment of a research proposal and provides expertise in study and biostatistical design/analysis and bioinformatics.

**Research Electronic Data Capture (REDCap)** is a Research and Health Sciences IT-supported resource for investigators that allows for electronic capture of data for research. The CRN can provide limited cost-sharing support.

The **Clinical Data Extraction Service** is a resource for investigators seeking information residing within the Clinical Data Warehouse of Emory Healthcare. The CRN can provide limited cost-sharing support.

The CRN can provide support for research participants traveling from a distance to stay overnight at the **Atlanta Hospital Hospitality House**.

If you are an Emory, MSM, Georgia Tech, Kaiser, or Children's clinical investigator and would like to utilize these resources, please visit the ACTSI website and follow the protocol submission instructions.

*To learn more about the Clinical Research Network (CRN) visit [www.ACTSI.org/CRN](http://www.ACTSI.org/CRN).*



## *Research Education, Training, & Career Development (RETCD)*

The **Research Education, Training, & Career Development (RETCD)** program is focused on providing didactic and mentored clinical and translational research training to a wide variety of trainees at Emory University, Morehouse School of Medicine (MSM), and Georgia Institute of Technology (Georgia Tech) who are committed to careers in clinical investigation. The RETCD program provides primarily long-term clinical and translational research training to postdoctoral and pre-doctoral trainees but also provides short-term training opportunities.

### **Available RETCD Resources**

The **Emory Master of Science in Clinical Research (MSCR)** degree program is open to:

- Doctorate or equivalent degree holders (such as physicians and PhD-level scientists)
- Pre-doctoral (medical or PhD) graduate students (through TL1 program support)



The **MSM Master of Science in Clinical Research (MSCR)** program includes a Clinical Research Education and Career Development component for underrepresented minority scientists. The MSCR degree program at MSM is open to:

- Doctorate or equivalent degree holders (such as physicians and PhD-level scientists)
- Pre-doctoral (medical or PhD) graduate students (through TL1 program support)

The **KL2 Mentored Clinical and Translational Research Scholars** program provides training to junior faculty with a doctorate (MD or PhD), at the level of instructor or assistant professor.

The **TL1 pre-doctoral Medical Scientist Training** program offers MD/MSCR and PhD/MSCR dual degrees and is open to:

- Medical students and PhD graduate students at Emory, MSM, and Georgia Tech
- Other health professionals, pursuing doctorate degrees in public health, biomedical sciences, and nursing

The **Certificate Program in Clinical and Translational Research** provides the expertise and experience to translate fundamental biomedical scientific discoveries into treatments that will benefit human health and is open to:

- PhD students, postdocs, residents, fellows at Emory, MSM, and Georgia Tech
- Research coordinators and faculty

RETCO also enhances clinical and translational research activities for doctoral and non-doctoral level trainees through **short course training**, which includes a three-month clinical and translational research rotation for pre-doctoral trainees at MSM and a Short Course on Clinical Research and Translational Experience in Science (SoCRATES) for medical students during the Discovery Phase. In addition, RETCO collaborates with the Summer Undergraduate Research at Emory (SURE) program to provide opportunities for clinical and translational research training for undergraduate students.

### Available RETCO Funding

The RETCO program is funded through the ACTSI and takes advantage of every avenue available to increase the number of clinical and translational research trainees. Available funding includes:

- ACTSI scholarships for long-term training (e.g., MSCR program scholarships) and three month short-term training in clinical and translational research
- KL2 funding for junior faculty (provides 75% salary support and technical budget to support clinical and translational research related costs, including tuition for the MSCR program)
- TL1 funding provides stipend support and tuition support for the MSCR program (to medical students and PhD graduate students)
- NIH Fogarty awards for international students
- Institutional and departmental scholarships

*To learn more about the Research Education, Training, & Career Development (RETCO) program visit [www.ACTSI.org/RETCO](http://www.ACTSI.org/RETCO).*



## *Community Engagement Research Program (CERP)*

The **Community Engagement Research Program (CERP)** supports community-university research partnerships, obtains community input into university research, and increases health research in community settings that is responsive to the health needs of the community. It connects existing academic community research programs from Morehouse School of Medicine (MSM) and Emory University's Robert W. Woodruff Health Sciences Center, transforms research from a scientist-subject interaction to an equitable partnership, and trains investigators in principles of community-based participatory research. To reduce health disparities, CERP:

- Creates a continuous community involvement process to reach communities and practitioners, share findings, and engage communities
- Generates new research programs
- Conducts courses and seminars on community-based participatory research
- Builds community capacity to generate research questions and work toward the improvement of community health

A Steering Board, containing a community representative majority and chair, oversees all CERP activities. The CDC-funded Prevention Research Centers at Emory and MSM provide leadership for the program. Other academic units contributing to CERP include: the Center for AIDS Research, the Jane Fonda Center, and the Nell Hodgson School of Nursing at Emory; and the Community Physicians' Network, the Southeastern Clinicians Research Network, and the Satcher Health Leadership Institute at MSM.

Current CERP-associated research projects include:

- **I-Adapt**, a project that tests an intervention to improve diabetes self-management implemented by community health workers using motivational interviewing techniques. West End Medical Center, a federally-funded community health center, is the community partner.
- **e-Healthy Strides**, a project testing an intervention employing lay health coaches and utilizing a web-based program to improve diabetes self-management. The original community partner was Big Bethel AME Church; the program is now offered to City of Atlanta employees.
- **EPICS** (Educational Program to Increase Colorectal Cancer Screening) is testing several approaches to disseminate an evidence-based colorectal cancer screening intervention. It was developed in a community-based participatory research project and then demonstrated in practice in partnership with the Fulton County Department of Health and Wellness.

### Available CERP Resources

CERP works with the ACTSI Biomedical Informatics Program (BIP) to maximize data management capabilities in the MSM National Center for Primary Care. The goal is to provide **population health surveillance and monitoring**, which will provide rapid-cycle feedback to research scientists, practitioners, and communities, while employing novel approaches to an integrative health information system.

CERP's **Health Promotion Initiative** relies on community health workers to deliver a health promotion package to community partners.

### Education and Training

CERP developed a semester-long, two credit course, **Community Engagement in Clinical Research**, which is an integral part of the training of MD and PhD ACTSI trainees, and a requirement in the Emory and MSM Master of Science in Clinical Research (MSCR) programs. CERP collaborates with the ACTSI's Research Education, Training, & Career Development (RETC) program to train students in the principles and practice of community-based participatory research.



The Satcher Health Leadership Institute provides training to leaders of community partners to help build capacity in the organizations they represent.

### Available CERP Funding

The **CERP Mini-Grant Program** invites proposals for partnership-based health projects that involve collaborations between a community organization and a faculty mentor from MSM, Emory, or Georgia Institute of Technology. Small grants are awarded each year to community-based organizations (CBOs) to support the dissemination of ACTSI research findings to the community. Larger grants to CBOs offer technical assistance to support the development of academic-community research projects. Health topics may include, but are not limited to, cancer, diabetes, heart disease, HIV/AIDS/other STDs, nutrition, physical activity, stroke, teen pregnancy, tobacco, or violence/injury. CERP provides proposal-writing workshops for potential applicants and assists them to develop skills needed to secure larger grants from other sources.

*To learn more about the Community Engagement Research Program (CERP) visit [www.ACTSI.org/CERP](http://www.ACTSI.org/CERP).*



## *Ethics & Regulatory*

The **Ethics & Regulatory** program provides ethics and regulatory knowledge infrastructure and support for clinical and translational investigators within the ACTSI. The program helps to centralize and consolidate research support infrastructure at Emory University, Morehouse School of Medicine (MSM), and Georgia Institute of Technology (Georgia Tech), including broadening the Emory Clinical Trials Office to form an Office of Clinical Research and Research Compliance. In addition, a research ethics resource is available within Emory, titled the Section of Ethics in Research and Participant Advocacy (SERPA).

### **Available Ethics & Regulatory Resources**

The program provides support to ACTSI investigators on major regulatory issues through its integration with the **Emory Office for Clinical Research** and **MSM Office of Sponsored Research Administration**, which provide the infrastructure to integrate and broaden the scope of regulatory support and training, assist the academic growth of clinical investigations, and support the highest level of ethically conducted clinical and translational investigation across institutions.



## Ethics & Regulatory Resources

- Investigator and protocol support for regulatory affairs
- Investigator and institutional conflict of interest assistance
- Complex Internal Review Board issue resolution
- Coordination of multiple committee approvals
- Consultation on intellectual property issues and conflicting institutional policies
- Safety surveillance and support
- Financial and research compliance
- Quality assurance
- Adverse Event database
- IRB reciprocity, Memorandums of Understanding, and Material Transfer Agreements with ACTSI partner institutions
- Training and education programs for investigative teams

Ethics & Regulatory offers a **research ethics consultative service** by the members of SERPA. The **Ethical Dilemmas in Scientific Research and Professional Integrity** website ([www.actsi.org/ethics](http://www.actsi.org/ethics)) also presents case scenarios involving responsible conduct in research. Each case is followed by a brief, expert opinion that suggests strategies for resolution. The cases include issues on:



- Animal Use
- Authorship
- Confidentiality
- Conflict of Interest
- Data Interpretation and Management
- Drug Trials
- Informed Consent
- Intellectual Property
- Mentoring
- Misconduct
- Participant Recruitment

These cases can provide useful teaching materials for college or university faculty who present lectures on responsible conduct in research.

*To learn more about the Ethics & Regulatory program visit [www.ACTSI.org/ethics\\_reg](http://www.ACTSI.org/ethics_reg).*



## *Research Technologies*

The **Research Technologies** program provides the infrastructure and programmatic foundation to rapidly identify and invest in promising technologies, enhance collaborative opportunities among translational investigators, promote novel methodological development, enhance awareness and support education and training in translational technologies, and provide better access to shared resources, including service centers and core facilities at Emory University, Morehouse School of Medicine (MSM), and Georgia Institute of Technology (Georgia Tech). The overarching goal of the Research Technologies program is to catalyze:

- Interdisciplinary scientific discovery to address health care innovation
- Novel training programs in emerging technology development and translation
- Development, validation, and commercialization of translational technologies

### **Available Research Technologies Resources**

To facilitate the use of shared resources and enhance opportunities for collaboration among translational investigators, the Research Technologies program partnered with the Biomedical Informatics Program (BIP) to create **eBIRT – the Biomedical Interactive Resource Tool** – found at <http://ebirt.emory.edu>. eBIRT, a free web-based application, provides a central location to search for resources that are available at Emory, MSM, Georgia Tech, and other institutions throughout Georgia. This tool supports the community of translational investigators throughout the greater Atlanta area.





The program brings novel technologies to investigators with efforts based at Emory, MSM, and Georgia Tech like genomic sequencers, the laboratory information management system (LIMS) infrastructure for a virtual biorepository, and optical imaging equipment all sponsored through the Research Technologies' proof-of-principle fund.



## Available Research Technologies Funding

### Funding for New Technology

Thanks to support from the Georgia Research Alliance, Research Technologies established the Proof-of-Principle Fund to support rapid identification and evaluation of high-impact emerging technologies. The funds are used to invest in new and promising technologies. Technology investments are made annually through a RFA and prioritization process that emphasizes developments that would substantially impact the Atlanta clinical and translational science community. The program also provides funds through ACTSI's Pilot Grants program to support technology-related collaborative pilot projects.

### Funding for Education and Training

In an effort to foster interdisciplinary collaborations and promote technology training and awareness, Research Technologies is pleased to co-sponsor biomedical symposia and other educational programs that align with the program's goals. The Research Technologies program also supports trainee research experiences through **Medical Student Discovery Phase Mini-Grants** and the **Georgia Tech/Emory Capstone Senior Design Program**.

Leveraging the ACTSI's rich resources in drug discovery, the Research Technologies program established a **Drug Discovery and Development Pilot Fund**. This fund supports both pilots that leverage the resources of one or more of the drug discovery and development resources available in the three ACTSI academic institutions and studies in collaboration with the Alabama Drug Discovery Alliance (ADDA).

*To learn more about Research Technologies program visit [www.ACTSI.org/research\\_tech](http://www.ACTSI.org/research_tech).*



## *Pilot Grants*

The **Pilot Grants** program promotes new networks of multidisciplinary research teams that help re-engineer the health sciences enterprise in Atlanta. The program seeks to enhance currently available resources, to invest in new clinical and translational research models, to encourage junior faculty to collaborate, and to bring cutting-edge science to patients. Pilot Grants distributes funds annually through one year pilot grants, to support novel biomedical methods development by Emory University, Morehouse School of Medicine (MSM), and Georgia Institute of Technology (Georgia Tech) clinical and translational investigators.

Pilot Grants established a committee of experienced clinical and translational research referees to identify and advocate for proposals specifically responsive to the integrative translational research goals of the ACTSI and to distribute funds for applications from scholars.





Review criteria include:

- Innovation
- Significance
- Translational potential
- Alignment with ACTSI strategic themes
  - Predictive health/systems biology
  - Computational and life sciences
  - Regenerative medicine
  - Immunology and vaccines
- Alignment with the Research Technologies program
  - Genomics
  - Imaging
  - Immunology
  - Molecular screening technology
  - Animal models

Proposals from collaborative investigative teams that include both basic scientists and clinician-investigators and faculty at more than one ACTSI institution are particularly encouraged.

### Available Pilot Grants Funding

Pilot Grants provides competitive funding for clinical and translational investigators. Funding is used to support **pilot projects** that build collaborative study and further clinical and translational research.

Funding partners include:

- University Research Committee
- Woodruff Fund
- Georgia Research Alliance
- Coulter Foundation
- Regenerative Engineering and Medicine Research Center (Georgia Tech/Emory)
- Winship Cancer Institute
- Health Innovation Program (HIP)
- Morris K. Udall Parkinson Disease Center
- Center for AIDS Research Small Grants Program
- Emory Alzheimer's Disease Research Center
- Chemical Biology Seed Grant Program
- Research Centers at Minority Institutions (RCMI)

*To learn more about the Pilot Grants program visit [www.ACTSI.org/pilot\\_grants](http://www.ACTSI.org/pilot_grants).*



## *Biostatistics, Epidemiology, & Research Design (BERD)*

The **Biostatistics, Epidemiology, & Research Design (BERD)** program provides essential research design, biostatistics, and epidemiological collaborative/consultative services to Emory University, Morehouse School of Medicine, and Georgia Institute of Technology investigators and fosters the development of new statistical methodology to meet analytic challenges. The program promotes biostatistical and epidemiological education and training opportunities and is also a potential resource to support outreach programs in the greater Atlanta area. BERD personnel are available to support all phases of statistical protocol development, including:

- Experimental design
- Data analysis planning
- Statistical power/sample size estimation

A key goal of the BERD program is to provide investigators value-added assistance to markedly improve the quality of their translational and clinical research by having highly trained BERD program faculty and staff, with a wide array of expertise, available to assist in a timely manner.



### Available BERD Resources

BERD offers the following services to Emory University, Morehouse School of Medicine, and Georgia Institute of Technology investigators:

- Rapid response to statistical questions via email
- Initial links to Biostatistics and Bioinformatics faculty with relevant research expertise
- Study design consultation
- Assistance developing NIH grant applications
- Analytical plans for research proposals
- Sample size and statistical power calculations
- Randomization planning and implementation
- Review of ACTSI Clinical Research Network (CRN) proposals

*To learn more about the Biostatistics, Epidemiology, & Research Design (BERD) program visit [www.ACTSI.org/BERD](http://www.ACTSI.org/BERD).*

# Biomedical Informatics Program (BIP)

The **Biomedical Informatics Program (BIP)** offers informatics support to investigators through expertise and tools at Emory University, Morehouse School of Medicine (MSM), and Georgia Institute of Technology (Georgia Tech) throughout the life cycle of their research protocols. BIP provides investigators with biomedical informatics research support, consulting, and key tools to maximize the scientific impact of ACTSI investigator proposals. It facilitates novel translational research by enabling management, linkage, analysis, and mining of multiple types of data. BIP also offers informatics education to students, postdoctoral researchers, and investigators, including training and biomedical informatics courses taught by Emory faculty, for more effective application of bioinformatics, biostatistics, and informatics in their projects.

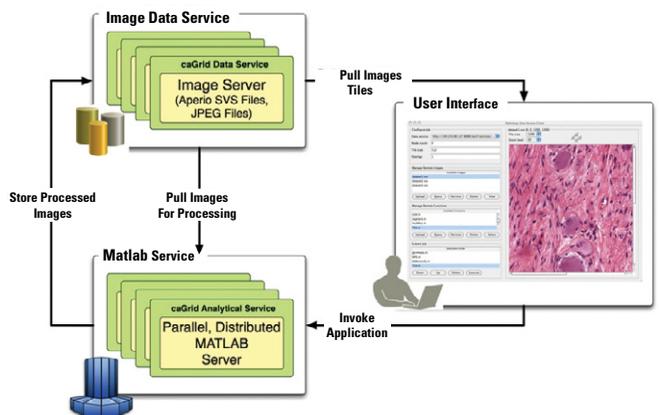
BIP works with partner institutions to develop innovative infrastructure to support collaborative, integrative translational research studies within and between Clinical and Translational Science Award sites. Furthermore, the program works with the information technology offices of Emory, MSM, Georgia Tech, Children’s Healthcare of Atlanta, Atlanta VA Medical Center, and Kaiser Permanente Georgia to support ACTSI investigators, build technology infrastructure, and securely connect the Clinical Research Network (CRN) sites across the ACTSI. BIP also works with the CRN and the Biostatistics, Epidemiology, & Research Design (BERD) program to provide consultation to investigators through Studio sessions.

## Available BIP Services and Resources

- Clinical and translational research informatics
- Bioinformatics
- High performance computing for large scale data analysis and management
- Imaging informatics

## Informatics Research and Development

- Solution design
- Data management and reporting
- Programming and application development
- High performance computing
- Data and information security



BIP deploys and maintains a suite of tools and infrastructure to provide data management and analysis resources. These tools include:

- The **Analytic Information Warehouse (AIW)**: a suite of tools and middleware infrastructure that creates curated clinical data marts from electronic health record systems for research. The AIW supports computational and semantic data transformations and derivation of clinical phenotypes to support specific research applications.



- **Nautilus LIMS:** a configurable platform for laboratory information management to enable support of a variety of laboratory types and implementation of biorepositories
- **Eureka! Clinical Analytics:** a web-based application, built on the AIW, that supports configuration of access to institutional databases, importation of clinical data from spreadsheets, phenotype specification, and detection and importation of data and phenotypes into a clinical data mart
- **REDCap:** a secure, web-based system that facilitates form-based data capture and implementation of surveys for research
- **i2b2:** a web-based clinical and translational research database system to manage and query clinical data for research
- **CR-Assist:** web-based application to help investigators/coordinators manage participants, track study visits, submit electronic appointment requests, and print sample collection labels
- **eBIRT:** a web-based query engine to enable search for biomedical resources across the ACTSI

In addition to these data management tools, BIP provides support for bioinformatics analysis pipelines, software for imaging data management and analysis, and high performance computing software for large scale data analyses.

BIP also consolidates biomedical informatics expertise from Emory, MSM, and Georgia Tech, to develop novel software systems and techniques to support increasing informatics needs of cutting edge clinical and translational research projects. These development efforts include:

- Multi-site federated data repositories that integrate clinical, genomic, and observational data
- Methods for quantitative characterization of disease morphology and its correlation to genomic and clinical data using high resolution image data
- Methods for analysis of next generation sequencing data
- Support for federated bio-repositories and laboratory information management
- Methods and software for integrative analyses involving imaging, genomic, and clinical outcome data
- Novel systems for secure access to and dissemination of clinical data for research purposes
- High performance systems software to support coordinated use of hardware accelerators (such as GPUs) and distributed cluster systems for large scale data analyses

*To learn more about the Biomedical Informatics Program (BIP) visit [www.ACTSI.org/BIP](http://www.ACTSI.org/BIP).*



## *Pediatrics*

The ACTSI **Pediatrics** program works with the Emory University and Morehouse School of Medicine (MSM) Departments of Pediatrics and Children's Healthcare of Atlanta (Children's) to support and develop pediatric clinical and translational research in Atlanta. Pediatrics provides a coherent and integrated academic home for pediatric clinical and translational research by enhancing research infrastructure, including:

- Designated inpatient and outpatient clinical research sites
- Integration between the Children's Office of Clinical Research and partner Institutional Review Boards
- Multi-center clinical trials
- Support for pediatric-based community engagement programs
- Training and education opportunities

### **Available Pediatrics Resources**

Pediatrics, the Clinical Research Network (CRN), and Children's support a Clinical Research Site located at Children's Healthcare of Atlanta at Egleston (Egleston), called the **Pediatric Research Center (PRC)**. The PRC is designed to provide necessary infrastructure for investigators conducting pediatric clinical research. This four-bed inpatient unit is located





on 4 West (Tower 2), and a four-bed outpatient unit is located within the Technology-Dependent Intensive Care Unit (TICU) (Tower 2) of Egleston (1405 Clifton Road NE). The PRC is available to any pediatric investigator with an approved ACTSI protocol or an NIH-funded network study. The pediatric inpatient and outpatient units offer core support facilities and resources, including:

- Facilitating tests and procedural visits conducted by research nurses, such as radiological exams, phlebotomy, IV access, medication administration, vital signs, and lab draws
- Protocol design consultation
- Research pharmacy support
- Safety oversight
- Bionutrition support
- Basic laboratory processing of human biological samples, preservation and storage of samples, generation of aliquots, scheduling, sample acquisition, and tracking via Laboratory Information Management System (LIMS)
- Assay consultation

Other satellite clinical sites can be found at Emory-Children's Center and Children's at Hughes Spalding. Pediatrics also offers **investigator support** via an Emory/Children's combined Pediatric Research Office, which facilitates coordination of pediatric research administration between Children's and Emory's research administration offices.

*To learn more about the Pediatrics, visit [www.ACTSI.org/pediatrics](http://www.ACTSI.org/pediatrics).*



## Who is an Atlanta Clinical & Translational Science Institute (ACTSI) Investigator?

Any investigator who has received in-kind, indirect, and/or financial support from the NIH-sponsored ACTSI is considered an ACTSI investigator. ACTSI support comes in many forms, including service support provided by the Clinical Research Network (CRN), pilot project funding or seed grants, statistical support, informatics services, ethics consultations, and the use of ACTSI-funded resources and/or facilities.

## Citation Required

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Further information about the  
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### **Atlanta Clinical & Translational Science Institute**

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