**FACILITIES**

**UNT DENTON**

**The University of North Texas (UNT)** is a Tier One public research university, designated as a Minority Serving/Hispanic Serving Institution by the U.S. Department of Education. UNT is the largest university in the Dallas Fort Worth metroplex and is the fourth largest university in the state of Texas (38,000+ students). In addition to the main campus in Denton, the UNT System includes UNT Dallas, UNT Health Sciences Center in Fort Worth, and UNT at Frisco, the University’s newest addition. As a Doctoral University: Highest Research Activity (R1), UNT offers 100 bachelor’s, 83 master’s and 37 doctoral degree programs.

UNT is transforming its research infrastructure by creating world-class facilities, renovating existing space, investing in the latest tools, and hiring top-level faculty from around the world to enhance its base of expertise, as well as business and industry partnerships.  The increasing diversity of our student population not only helps provide a more enriching educational experience for our students, but also provides an opportunity for our faculty to conduct more thoughtful research which includes and positively impacts all communities.

The PIs have access to excellent resources aimed to assist all faculty members, particularly Early Stage Investigators. At the department level, full-time administrative staff are available to aid the PIs with travel arrangements, grant proposal administration, student payroll, and purchasing.

**UNT Discovery Park**is located 5 miles north of the UNT main campus in Denton, Texas. It includes a 554,000 square foot building, which also is occupied by the College of Engineering, the College of Information and the Center for Information and Computer Security and supports interactive and multidisciplinary STEM (Science, Technology, Engineering and Mathematics) research, education and training that benefits students, faculty and the community, and expands economic development by developing industry-university partnerships. Discovery Park is near Interstate 35 and is surrounded by a large parking area.  At present, a new Vivarium is under construction.

**Libraries & Facilities Staff.**UNT has a well-stocked library with subscriptions to all relevant journals that is
available through online access 24 hours per day. UNT also maintains a full-time staff of facilities employees that include machinists, carpenters, and electronics technicians to aid scientists with repairs, design, and construction of specialized equipment should they need it to conduct research. In addition, there is full time personnel available for computer/IT support, as needed.

UNT Libraries has a Mapping and GIS subject librarian who works with students and faculty to access training on GIS software, obtain open-source software, and find free shapefile datasets for use in instruction and research.

**Texas Advanced Computing Center (TACC).**TACC is a high-performance computing facility provided by a partnership between the University of North Texas (UNT) and the University of Texas at Austin. The TACC facilities are state-of-the-art computing facility located mostly on the University of Texas at Austin Campus in Austin, Texas. The facility utilizes LoneSTar6 which is composed of 560 compute nodes and 16 GPU nodes. The system employs Dell Servers with AMD's EPYC Milan processor, Mellanox's HDR Infiniband technology, and 8 PB of BeeGFS based storage on Dell storage hardware. Additionally, Lonestar6 supports GPU nodes utilizing NVIDIA's Ampere A100 GPUs to support machine learning workflows and other GPU-enabled applications. Through this agreement, expert HPC support staff at UT Austin and UNT Denton work together to provide incredibly fast high-performance computing power available to support our UNT researchers 24 hours a day, 7 days a week.

**UNT Core Research Facilities**

***Genomics Facility***

The University of North Texas Genomics Center Core Facility provides experimental design consultation support, sample processing, quantity and quality analysis services and support, NextGen sequencing, microarray and qPCR services and support, and data output bioinformatics and biostatistics analysis and support services. The 1700 square foot lab housed in the Life Science Complex A417 on the Denton Campus. The facility houses an Illumina NextSeq 500 sequencing platform, a Covaris M220 Focused Ultrasonicator, an Illumina MiSeq 2 Benchtop sequencing platform, an Affymetrix GeneArray Scanner/GeneChip workstation, and a ThermoFisher QuantStudio 5 Real-Time PCR System. Available lab equipment also includes PC workstations with large storage capacity, an Agilent Technologies 4200 TapeStation system, a NanoDrop One spectrophotometer, a Qubit 3.0 Fluorometer, low and medium speed refrigerated and RT centrifuges, gel electrophoresis imaging and documentation equipment, power supplies, general and analytical balances, ultra-low temp freezers and all other equipment necessary for recombinant DNA manipulations, DNA and RNA isolation and processing, as well as several PCR thermal cyclers, and dedicated pre- and post-prep areas.

***Bioanalytical Facility***

The bioanalytical facility is located in in the Life Sciences Complex A wing on the 4th floor and features state-of-the art mass spectrometers with advanced capabilities for quantifying small molecules. The BioAnalytical Facility offers metabolomics services to internal and external users. The BioAnalytical Facility has several instruments available for bioanalytical research. The facility is maintained by a full-time staff member and two part-time instrument technicians.

**Services**

• Targeted metabolomics

• Untargeted metabolomics

• Quantification of 13C-state isotope labeling

• Extraction and quantification of macromolecules

• Design and validation of methods for new metabolites

 **Instrumentation**

• Two Agilent UHPLC 1290 Infinity II: ultra high performance liquid chromatography

• ABSciex QTRAP 6500+ with SelexION: bench top hybrid triple quadrupole-linear accelerator-trap mass spectrometer with differential ion mobility device

• Agilent 6460 QQQ: triple quadrupole mass spectrometer

• Thermo Trace 1310 Gas Chromatography coupled to an ISQ Single Quadrupole Mass Spectrometer. The autosampler, a TriPlus TSH, permits online derivatization of samples, and different types of injections (liquid phase, headspace, and solid phase microextractions)

• 6890N Gas Chromatography coupled to a 5975B MSD Single Quadrupole Mass Spectrometer from Agilent Technologies.

 **Analysis Software**

• Analyst software (v 1.7)

• MassHunter Workstation software (v B.08.00)

• Xcalibur software (v 2.2)

• Library from the National Institute of Science and Technology (NIST v.17)

• MSD Chemstation (v E.02.02.1431)

• MetaboAnalyst (v 4.0)

• Omix (v 1.9.33)

• XCMS (v 3.7.1)

***Materials Research Facility***

UNT's Materials Research Facility (MRF), located at Discovery Park, is one of the most advanced university research facilities in the nation for materials analysis — from the atomic to macro scales. The facility offers a suite of powerful analytical instruments used for true 3D characterization and processing with an adjoining cleanroom so that materials can be synthesized, tested, and controlled in close proximity. The facility offers a multi-dimensional characterization laboratory which in 2012 MDCL was moved into a new 5500 sq. ft. space that physically centralized MDCL functions and co-located it with a clean room. The nanofabrication laboratory which occupies approximately 3000 sq. ft. of clean space and includes a Class 100 lithography area and a Class 10,000 wet and dry processing and characterization area.

**UNT Institutes**

**Advanced Environmental Research Institute**

The Advanced Environmental Research Institute (AERI) is one of four Institutes of Research excellence at UNT. AERI is comprised of a collaborative group of over 30 researchers involved in science-based interdisciplinary environmental research that provides an understanding of how human actions impact the environment and then uses that knowledge to suggest scientific, engineering, policy, and educational solutions to actual environmental problems. AERI maintains the following facilities:

1. ***Lewisville Lake Environmental Learning Area (LLELA)*** which is in its 18th year and sits just south of Lewisville Lake on 2,100 acres and serves as a living lab perfect for research and environmental education purposes.
2. ***The Pecan Creek Pollinative Prairie*** is a native North Central Texas tallgrass prairie reconstruction project located on four acres of the east field at the University of North Texas Discovery Park Campus.
3. ***Water Research Field Station and Artificial Stream Facility***are two of the few facilities in the nation designed to assess, under field conditions, the effects of new chemicals and pesticides on aquatic ecosystems prior to their use in the general environment. The Water Research Field Station consists of 48 aquatic testing ponds of 0.1 acre each and 52 1,000- and 10,000-liter microcosms. The Artificial Stream Facility has 12 replicate five-meter streams, each capable of being colonized by aquatic species.

**UNT Colleges and Faculty Laboratories**

The UNT team will have access to wireless access points, and teleconferencing software and equipment. All computers are expected to be networked to university server systems at up to 200 Megabit/second, and further connected to a 1 Gigabit backbone for exceptional performance and connectivity to both commodity Internet and lnternet2.

**College of Health and Public Service**

The College of Health and Public Service (HPS) takes academics beyond the classroom and into the community, offering hands-on experience across a variety of social issues. The college has six programs ranked in the Top 100 by U.S. News and World Report. The seven academic departments within the college prepare undergraduate and graduate alumni to examine and address complex social issues in the areas of aging, disability, disaster management and recovery, criminal justice, cultural disparities, public safety, public administration, public health, and urban design. HPS also supports the Center for Public Management, the UNT Speech and Hearing Center and a number of professional development and clinical training programs.

***Department of Rehabilitation and Health Services***

The Department of Rehabilitation and Health Services prepares interdisciplinary professionals who will advance equity and optimize quality-of-life outcomes in diverse communities across the nation by fostering positive health outcomes across the life-span to insure equity for all. The department is comprised of community-engaged academics providing an education that reaches beyond the classroom. Faculty with expertise in applied gerontology, health services, rehabilitation counseling, substance use, and behavioral health concerns prepare students for a career making a positive change in the lives of others. Alumni of the department’s programs become researchers, educators, administrators, and clinicians.

The department offers an undergraduate major in rehabilitation studies and offers a nationally-ranked Master of Science degree in Rehabilitation Counseling and a Master of Science in Health Services Administration. The department houses an innovative interdisciplinary PhD in Health Services Research with concentrations in Applied Gerontology, Audiology & Speech-Language Pathology, Behavior Analysis, and Rehabilitation Sciences. All faculty in the department have experience in community engaged academics providing an education that reaches beyond the classroom.

***Heck Laboratory:*** Dr. Heck’s workspace includes a climate-controlled office (170 square feet) with a desk and a table and chairs for meetings, and an adjoining research office (187 square feet) with desks, filing cabinets, bookshelves, and office supplies. She has a dedicated machine with specs equivalent to a Dell Precision PC with a Core 2 Quad processor (3.0 GHz), 4 GB of RAM, 1 TB of disk space, with a full complement of productivity software and access to a printer, scanner, copier, fax machine, and document shredder.

***Department of Social Work***

The Department of Social Work includes 5 tenure-link faculty and 2 clinical faculty, and offers a BSW and a joint MSW program with Texas Women’s University. Areas of faculty research strength include child welfare, trauma and addiction, refugee and global studies, sexual minorities, and gerontology and intersectionality.

***Department of Behavior Analysis***

The Department of Behavior Analysis includes 9 tenure-line faculty and 4 degree programs (BS, MA, MS, and PhD). The Department has a regional, national, and international reputation for our applied/clinical work, for conceptual contributions, and for basic research. Notable areas of faculty expertise include autism intervention across the lifespan, assessment and treatment of challenging behavior in populations with intellectual disabilities, culturo-behavior science (behavioral and cultural systems analysis), cultural responsiveness in applied behavior analysis, behavioral neuroscience, and behavioral medicine.

**The College of Health and Public Service GIS Resources**

* 1. **GIS/Data Resource Center**

The GIS/Data Resource Center is a new 1800 square feet lab that will open in Fall 2020 that will house 4 faculty, post-doctoral associates, and graduate assistantship offices, a conference room, open collaborative computer lab space, and a work/storage room with sink. The technology plans include large format printers (plotters), 3D printer, bw and color printers, 70” touchscreen monitors, interactive whiteboards, 12 desktops in the collaborative lab space plus desktops in the 4 offices, and VR station. The center will host virtual servers in UNT’s data center for large datasets accessible to researchers in the center.

2. **The Geographic Information Science (GIS) Lab**,

The GIS lab, housed in the Environmental Education, Science and Technology Building (EESAT), provides instructional and research support in the areas of geographic information systems (GIS), computer cartography, spatial analysis and environmental modeling. The facility serves undergraduate and graduate students majoring in geography and in environmental science. Beyond its immediate instructional and research mission, the GIS Lab provides GIS support for institutional planning and facilities management at UNT.

1. **The Center for Remote Sensing and Land Use Analysis**

This Center is a state-of-the-art computer facility for remote sensing data collection, image enhancement, classification and analyses support a variety of basic and applied research. The primary thrust of the research is to understand interrelationships between local or regional land use patterns and water quality. The center has a fully equipped Earth Resources Data Analysis System (ERDAS) and ARC/INFO capabilities.

**College of Liberal Arts and Social Sciences**

The College of Liberal Arts and Social Sciences maintains 22 academic departments and programs, one school and 11 centers and institutes. The college pursues instruction, research, and service across a broad spectrum of arts, humanities and social science disciplines. Nearly 9,000 students are currently pursuing a CLASS degree, with 294 faculty members. The college is spread out over several university buildings on the Denton campus. The college offers several research facilities and centers including but not limited to the psychology clinic, the center for sport psychology, the center for psychosocial research, and more general research spaces such as the Computing for Arts + Sciences facility.

***Department of Geography***

The department of Geography engages in research in the following core areas: earth science and modeling, GIS and remote sensing, globalization, development and cities, and human systems and the environment and maintains the following center relevant to this project. The department houses hands-on training facilities: GIS lab, ecosystem geography lab, and the hydrology lab.

1. ***Center for Spatial Analysis and Mapping Facilities:***Up-to-date hardware and software packages for Geographic Information Systems (GIS) and remote sensing image analysis are available through the Center for Spatial Analysis and Mapping (CSAM). For students participating in the project, CSAM provides instructional support in the areas of GIS, computer cartography, spatial analysis, and environmental modeling. The facility contains 45 desktop computers as well as high-quality printers for the creation of research posters and other presentation materials.

***Oppong Laboratory***: Dr. Oppong maintains two research offices, one in the environmental science building on the third floor, and one in the student services building where he also has an appointment as Associate Dean of the Graduate School. His research lab has access to relevant software, GIS mapping tools, and computer systems.

***Liang Laboratory:*** Housed in the EESAT Building, this computer laboratory and student space will serve as the central site for project coordination, database management, calibration of monitoring sensors. The lab hosts six battery-operated Dylos air quality monitors (DC1700-PM), ~20 PurpleAir PM2.5 sensors, and a number of GPS data loggers. A section of the lab space used to house students, fellows, and visiting scholars contains twelve workstations equipped with computers and up-to-date software for spatial analysis (ArcGIS Pro, Erdas), graphics preparation (Adobe Photoshop, Illustrator), programming platform (Matlab, R). The lab also contains one large workbench, several chairs, a whiteboard, and an LCD projector for student use, training, presentations, and laboratory meetings. Dr. Liang’s office, a small meeting area, and a conference room for seminars are also located in EESAT.

**College of Science**

The college of science maintains 12 undergraduate and 14 graduate programs, which spread over 4 academic departments: Biology, Chemistry, Math and Physics. The following are the largest state of the art facilities and most relevant to this proposal that are maintained by the college of science.

***Department of Biological Sciences***

The Department of Biological Sciences is spread over four buildings, the Life Sciences Complex (LSC) buildings A and B, Science Research Building (SRB) and the Environmental Education Science and Technology (EESAT) building.

1. ***Biological Life Sciences Facilities***: The LSC-A and LSC-B buildings are connected by walkways at levels 1, 2 and 3. The new state-of-the-art LEED-Gold-certified Life Science B building (over 120,000 sq. ft.) houses biochemistry, developmental physiology and genetics, molecular biology, and plant science. The “open research” laboratories, offices and meeting spaces promote interaction and collaborations between researchers. The complex has been fully equipped with the latest equipment for research in areas such as proteomics, genomics, metabolomics, biochemistry, microscopy, animal models, etc. Housed within these buildings include Microscopy core and unit facilities, BioDiscovery Genomics Center, and Mass Spectrometry (see Equipment attachment).

***Lund Laboratory:*** Dr. Lund has approximately 850 sq. ft. of newly refurbished lab and office space in the Environmental Science building on the University of North Texas Denton Campus. This lab is equipped with standard chemical and biological hoods (level II), refrigerator/freezer, -80°C freezer, Millipore distilled water system, and sinks. Dr. Lund also has access to shared lab space including darkroom lab available dedicated to fluorescence imaging, fluorescent immunohistochemistry on confocal microscopes (Zeiss LSM 710), and bioluminescence studies, in addition to separate lab space equipped with computers for analyzing images (with Zen 2011 and Imaris imaging software), gels, and membrane blots. Dr. Lund’s laboratory is equipped with an inverted microscope, 2 x stereoscopic tissue dissecting microscopes, a light microscope with imaging station, pH meter, chemical hood, biological safety hood (level II, for cell culture and/or handling of NHP tissues), RNA hood, organ tissue bath with four isometric force transducers, 2 x stirring plates, analytical balance, water bath, electrophoresis (Western blot) equipment (with vacuum/iSNAP antibody application system), cell culture incubator, liquid nitrogen dewar, BioRad CFX96 Touch Real time PCR machine, QiagenTissue Lyser, 2 x bench top centrifuges, refrigerated microcentrifuge, autoclave, 3 x vortexs, Cytation5 fluorescence, luminescence, and spectrophotometer multidetection plate reader, Thermo Scientific cryostat, and EVOS fluorescence imaging station microscope, and EVOS XL digital inverted bright field and phase contrast microscope. Dr. Lund and her students/laboratory staff also have access to the following equipment in Dr. McFarlin’s (Collaborator on separate projects) lab at UNT: Luminex MagPix, EMD Millipore FlowSight, EMD Millipore EasyCyte 12HT flow cytometer. Dr. Venable’s (Collaborator on separate projects) lab space at UNT includes three Environmental Chemistry Laboratories that include: an Agilent 5973 mass spectrometer with Agilent 6890 gas chromatograph, a Thermo-Fisher TSQ8000 GC/MS/MS, a Thermo-Fisher LTQ XL LC/MS Trap, a Micromass Quattro Ultima triple-quad mass spectrometer equipped with Waters 2695 HPLC Separations Module and, an Agilent capillary LC/MS/MS ion trap system Agilent 1100 Series capillary liquid chromatograph with Model SL ion trap mass spectrometer and refrigerated autosampler;; Electrospray Ionization (ESI) and Atmospheric Pressure Ionization (APCI) interfaces.

***Department of Mathematics***

The department of mathematics faculty researchers are housed in the General Academic Building (GAB) on the main UNT Denton campus. The following is a list of the core research areas: algebra, analysis, applied and computational mathematics, dynamical systems and ergodic theory, geometry, and topology, mathematical logical and foundations, number theory, and statistics. All 35 faculty researchers in mathematics have access to extensive software and computing facilities which includes the TACC high performance computing services.

***Wang Laboratory:*** Dr. Xuexia Wang is housed in the GAB in a fourth-floor office suite and has a laptop computer and a workstation installed Linux operating system. The applicants also have access to TACC which are high performance computing facilities provided by a partnership between the University of North Texas (UNT) and the University of Texas at Austin. The TACC facilities are state-of-the-art computing facility utilizing LoneSTar6. Lonestar6 is composed of 560 compute nodes and 16 GPU nodes. The system employs Dell Servers with AMD's EPYC Milan processor, Mellanox's HDR Infiniband technology, and 8 PB of BeeGFS based storage on Dell storage hardware. Additionally, Lonestar6 supports GPU nodes utilizing NVIDIA's Ampere A100 GPUs to support machine learning workflows and other GPU-enabled applications.

**College of Engineering**

The College of Engineering is housed in the discovery park campus and occupies 40,443 square feet at the UNT Research Park located at 3940 N. Elm Street in Denton, TX.  with numerous laboratories, and state of the art research facilities and is comprised of 94 full-time faculty members. The college specializes in the areas of digital manufacturing, artificial intelligence and machine learning, autonomous vehicles, and SMART sensing. The college maintains the following laboratories: nanofabrication cleanroom facility, the center for network neuroscience, the computational epidemiology research laboratory, the recreational computing laboratory, the structural testing laboratory, and the zero-energy laboratory.

***Department of Computer Science***

Research at the Department of Computer Science and Engineering is conducted by faculty members and students in three research centers and sixteen laboratories of various areas. These research centers main foci are cyber security, net-centric and cloud software and systems. The laboratories included in the departments research cores include algorithms, combinatorics, and graph theory, uncertainty quantification lab, artificial intelligence and data science labs, computer systems and networks labs, cybersecurity labs, and software engineering labs.

***Albert Laboratory:***Dr. Albert directs the Biomedical AI Lab with 8 active Ph.D. students, 10 MS students, and 10+undergraduate students including Texas Academy of Math & Science (TAMS) high-school aged undergrads. The laboratory has a shared code repository and years of experience in a variety of applications focused on wearable activity recognition, android app development, and clinical outcomes research. Additional projects including visual object tracking, efficient neural coding, and fall detection and classification. Equipment: Because the software tools developed in the lab are for a variety of platforms, machines in the lab include Windows, Mac, and Linux and mobile devices for testing including iPhones and a range of Android devices including tablets, older phone models, and newer android phones. Space: The 577 square feet lab is equipped with 10 desks and a shared teleconferencing/presentation space. In addition, PI Albert’s office nearby (130 square feet) is designed as a seminar-style meeting space with a large central table, seating for 8, and an additional large, shared screen for teleconferencing.

***Department of Electrical Engineering***

UNT's Electrical Engineering department has excellent state-of-the-art instructional and research laboratories and software to provide practical and advanced hands-on experiences for students. The department has 20 faculty researchers, 3 administrative support staff, and a full-time laboratory supervisor. All faculty offices, labs and staff offices are located in the B-wing of the discovery park campus. With over 10 laboratories in electrical engineering, the following instrumentation is also available:

* Rohde & Schwarz: ZVB-20 4-Port Vector Network Analyzer,10 MHz to 20 GHz
* Rohde & Schwarz: FSV Signal & Analyzer, 9 KHz to 30 GHz
* Rohde & Schwarz: FSH8 Spectrum Analyzer, 100 kHz to 8 GHz
* Agilent: E4438C ESG Vector Signal Generator, 250 kHz to 6 GHz
* Tektronix: TDS-6124C Digital Storage Oscilloscope, 12 GHz, 40 GS/s,
* Tektronix: WCA-280A Wireless Communication Analyzer, DC : 8 GHz, Rohde & Schwarz: ESIB26
* EMI Test Receiver, 20 Hz to 26.5 GHz, Rohde & Schwarz: UPV Audio Analyzer, DC : 250 kHz

***Mahbub Laboratory:*** Dr. Mahbub leads the Integrated Biomedical Circuits and Systems Laboratory (iBioCASL) locted in room B210 of the Discovery park. This lab supports teaching, research and development of RF and microwave systems, and antenna designs. Research focuses include designing, fabricating, and testing new RF/microwave/millimeter-wave circuits both in the board-level and chip-level, as well as miniaturized antenna design for biomedical applications. Apart from that the area of research also includes analog and mixed-signal circuit design, ink-jet printed and polymer based flexible electrode design for the proposed optogenetic stimulation and neural signal recording system. Software programs such as ADS, Cadence, HFSS and other facilities for simulations, prototyping, and measurement of RF/microwave components and systems are available in the lab. This laboratory also has high RF band-width equipment, transmitter/receiver pairs for experiments over a wide range of frequencies, test equipment for high-frequency pulsed signals, RF sensing and identification systems, microwave scattering near-field measurement equipment and advanced scattering simulation software. Dr. Mahbub has several computers in her office and labs with Matlab, Altium and Eagle PCB Designer software, Cadence Virtuosos Custom IC design tool, Advanced Design System (ADS), Ansys High Frequency Simulation Software (HFSS), OriginPro etc. Access to data resources includes UNT library and Health Science Center, IEEE Xplore, MEDLINE, numerous on-line journals, and a variety of NIH and other databases. Offsite Data Backup System: Research data saved on the university network will be stored on production "machine room" servers, with offsite data backup systems, all supported 24 hours a day, 7 days a week.

**College of Education**The College of Education offers 6 bachelor’s, 11 master’s and 9 doctoral degree programs among the four departments that comprise the college. The departments are counseling and higher education, educational psychology, kinesiology and health promotion, and teacher education and administration. The growing research faculty and student base maintain laboratories in multiple locations across campus in which the department of kinesiology research labs occupy the largest space in the physical education building with over 8,000 square feet of lab space.

***Department of Kinesiology***

The Department of Kinesiology, Health Promotion, and Recreation supports and encourages an in-depth
understanding of the nature and functioning of human beings in their physical, health, and leisure behaviors and the programs which facilitate research the enhancement of quality of life. The department is comprised of 26 faculty, and several administrative support staff, as well as one lab coordinator. Most of the faculty maintain labs or offices in the physical education building on the main UNT campus.

1. ***Applied Physiology Laboratory (APL) facilities*** - this lab includes over 8,000 square feet of state-of-the-art facilities for the measurement of bioanalytical outcomes following various exercise or nutritional treatments. The APL team routinely partners with industry to support expanding R&D needs at a lower cost point than a contract research organization is capable of achieving. Managed and operated by a number of faculty and dedicated staff as well as undergraduate and graduate research fellows, APL is divided into two main research areas: human physiology testing and biological analysis of collected samples. The APL is located in rooms 101, 108, 109, and 111 of the Physical Education Building on the UNT main campus.

1. ***Pediatric Movement and Physical Activity Laboratory*** - this lab positively influences the physical activity engagement of school-aged children to improve the health of students through empirical research, increasing public awareness and policy advocacy on issues related to school-based physical activity intervention, physical activity and physical fitness measurement, motor skill assessment, psychosocial health and childhood obesity. The major focus of this lab is on the research and development of innovative approaches to P-12 physical activity/education to help school-aged children develop health-related knowledge and skills.

**College of Information**

The College of Information is located at the University’s Discovery Park campus in Denton. Located five miles north of the main campus, in which COI has the requisite facility, equipment, and services to support its sponsored research on the second floor of the discovery park building. The college is comprised of three departments: information science, learning technologies and linguistics.

***Department of Information Science (DIS)*** - DIS has 25 full-time faculty members and six full-time staff. DIS has the requisite facility, equipment, and services to support its sponsored research. DIS has approximately 7,000 square feet of space for faculty and staff offices, labs, meeting rooms, and workrooms. This includes but is not limited to 43 individual rooms: 2 conference rooms; 31 faculty and staff offices; 6 office service rooms, and 4 research laboratories. DIS maintains a business office that includes accounting, academic advising, a human resource unit, and communication services. Other services and facility support are provided through the University, including access to the University’s powerful computing capabilities, grant proposal services, its 4 libraries as well as telephone
and web conferencing.

**Mayborn School of Journalism**

The Frank W. & Sue Mayborn School of Journalism was established in 1999. The school offers five concentrations and research areas: advertising, broadcast, digital and print, photojournalism, and public relations. Researchers in the School of Journalism maintain have a specific office dedicated to qualitative data collection which can accommodate focus groups and one-on-one interviews on the second floor of Sycamore Hall.

***Champlin Laboratory***: Dr. Champlin utilizes the general research office in Sycamore Hall for her projects, which are equipped with four desktop computers, wall-mounted ideation white boards, and a locking file cabinet. Another research office of ~256 sq. ft is available for behavioral data collection and is equipped with two desktop computers, wall-mounted ideation white boards, movable tables and chairs, and a locking filing cabinet.

**Environment – Contribution to Success:**

The facilities and other resources available to the Project Lead and research team at UNT include everything needed to undertake and complete the proposed research project successfully. The intellectual environment is rich with other investigators who are doing work that is complementary to what is proposed here.