MOREHOUSE SCHOOL OF MEDICINE

LEADERSHIP PROFILE

Director
Cardiovascular Research Institute

About Morehouse School of Medicine

Morehouse School of Medicine is dedicated to improving the health and well-being of individuals and communities; increasing the diversity of the health professional and scientific workforce; and addressing the primary health care needs through programs in education, research, and service, with emphasis on people of color and the underserved urban and rural populations in Georgia and the nation.
- MSM Mission

Morehouse School of Medicine (MSM) is nationally recognized as a leading educator of primary care physicians and as one of the top institutions among U.S. medical schools for social mission. In 2011, *U.S. News and World Report* named MSM among the Top 20 best medical schools for primary care.

Located in the historic Atlanta University Center just outside of downtown Atlanta, Ga., MSM was founded in 1975 as the Medical Education Program at Morehouse College. In 1981, MSM became an independently chartered institution and the first minority medical school established at a historically black college and university (HBCU) in the 20th century.

The school is proud to attract a diverse student body interested in the unique opportunity to serve underserved populations by matriculation through stellar academic programs designed to produce well-equipped, competent and top-notch medical practitioners, researchers and policy makers.

To learn more about MSM, visit www.msm.edu.

The Opportunity

The Director of The Cardiovascular Research Institute (CVRI) will serve as a senior level faculty member to lead the institute and conduct strong interdisciplinary research related to cardiovascular diseases. This senior level faculty position is available at the associate or full professor level. It is expected that the candidate's experience will align with other leadership opportunities.

The director will be instrumental in supporting CVRI's mission to improve the health outcomes of individuals with cardiovascular disease by establishing links from molecule-to-man-to-community and help build a multidisciplinary research environment integrating the disciplines of molecular biology, genetics and physiology with the disciplines of clinical investigation, epidemiology and community-based interventions. The institute houses an informatics, computation and analytic development unit and has close relationship with core facilities in gene sequencing, genomics and proteomics.

MSM is committed to the success of the CVRI as is evident by a $2 million endowed Chair in Cardiovascular Research and an endowment of over $7 million for the institute. The recruitment package for this position will include sufficient funds to support research personnel and non-personnel needs in addition to several state-of-the-art core laboratories. The package will also allow for the recruitment of several faculty level positions.

Qualifications and Assets

The ideal candidate may be a biomedical, population, or physician scientist with the following:

- MD and/or PhD degree and the credentials to qualify for an Associate or Full Professor appointment in one or more departments at Morehouse School of Medicine.
- Independent and extramurally funded programs in cardio-metabolic diseases (i.e., hypertension, diabetes, obesity) in the context of vascular remodeling, regenerative medicine, clinical and/or population studies; with innovative approaches and expertise in more than one discipline.
- Expertise in securing a diverse pool of funding.
- Strong track record of publications in nationally and internationally recognized journals.
- Strong track record of mentoring students, post-doctoral fellow and faculty.
- Willingness to participate in institutional service, medical and graduate teaching.
- Strong evidence of contributions to diversity, equity, and inclusion.
- Commitment to achieving scientific and scholarly excellence in alignment with the institutional strategic plan for research.
- Ability to sustain the CVRI's nationally competitive research programs.
- Ability to inspire and energize others with strong relationship building skills.
- Possess an approach that is collegial and collaborative.
- Proven ability to mentor, engage, manage, motivate and unite faculty and staff around common goals and strategies, and to drive teamwork and results across disciplines.
- Promote an environment that welcomes feedback, discussion and new creative ideas that encourage innovation.
- Ability to engage others in decision making to build consensus and to make tough decisions when necessary.
- Ability to analyze and tackle problems in a fair and collaborative manner, as well as implement systems, processes, and accountabilities necessary to support solutions.
- Proven business acumen with a track record of effective management.

About The Cardiovascular Research Institute

The mission of the Cardiovascular Research Institute (CVRI) is to improve the health outcomes of individuals with cardiovascular disease by establishing links from molecule-to-man-to-community. The CVRI strives to bridge the basic science disciplines of molecular biology, genetics and physiology with the disciplines of clinical investigation, epidemiology and community-based interventions.

The CVRI was established in July 1999 as a Center of Research Excellence. It is one of the first cardiovascular institutes of its kind at a historically minority institution with Gary H. Gibbons, M.D. as the founding director. Initial funding was awarded by a grant from the National Institutes of Health (NIH) National Center for Minority Health and Health Disparities and the National Heart, Lung, Blood Institute (NHLBI) program to develop cardiovascular research centers at HBCUs. Dr. Gibbons recently accepted an appointment as the Director of the NHLBI. The CVRI is a multi-investigator, multi-disciplinary organization that transcends traditional academic departmental structures to focus on advancing cardiovascular research and education.

Over the past decade, the institute has successfully recruited a talented critical mass of faculty with a wide breadth of scientific expertise that has enriched the intellectual capital of the institution and created one of the largest research portfolios at MSM. The CVRI includes scientists from a variety of disciplines such as: molecular biology, physiology, biochemistry, molecular genetics, psychology, cell biology, medicine, biostatistics and epidemiology. Research programs focus on basic, clinical and population science.

The institute's ongoing process of strategic planning and evaluation has enabled it to build upon its success and emerge as an internationally recognized Center of Research Excellence in cardiovascular science.

CVRI's primary goals are:

- To mentor and develop a critical mass of talented and diverse investigators as leaders of independent research programs and cross-disciplinary, collaborative research teams.
- To establish enabling technologies and a shared-use research infrastructure that supports leading-edge cardiovascular science.
- To expand the racial/ethnic diversity of the biomedical research community by sustaining a vibrant intellectual environment conducive to training and nurturing the development of minority students into leading investigators.
- To develop innovative, cross-disciplinary research programs that integrate basic, translational, clinical and population science approaches to address racial/ethnic disparities in cardiovascular health.

The following projects are just a few past and present highlights of CVRI's innovative and compelling research that have been instrumental in advancing the development of the institution:

- **Minority Health Genomics and Translational Research Bio-Repository Database (MH-GRID) Network: A Genomics Resource for Health Disparity Research**
  The Minority Health Genomics and Translational Research BIo-Repository Database (MH-GRID) Network infrastructure is established to facilitate the development of: 1) biorepository infrastructure via the ascertainment of biospecimens and 2) biomedical informatics capacity via the collection of multidimensional data elements and the tracking of patient outcomes in an electronic health records (EHRs)-linked data warehouse within a consortium of minority-serving clinics. This initiative is emerging as a novel national asset that expands the diversity of bio-ancestral groups represented in genomic medicine cohorts across the US.

- **Vascular Epigenome Dynamics in African-American Hypertensives**
  This clinical-translational research project is a natural extension of similar epigenomic analysis of hypertensive vasculopathy conducted in animal models of hypertension. This project involves a cross-disciplinary collaboration and seeks to define the dynamic changes in the vascular epigenome in hypertensive African Americans in response to treatment with an angiotensin receptor blockade. This study holds promise for making a link between drug responsiveness and epigenomics in different patient populations.

- **Morehouse-Emory Partnership to Reduce CVD Disparities (METAHealth)**
  The METAHealth study documented that African Americans exhibit higher levels of vascular 'stiffness' (as measured by the augmentation index) compared to whites even after adjustment for conventional risk. The greatest disparity in vascular 'stiffness' was observed in the sub-group of African Americans without risk factors. The higher level of vascular dysfunction in African Americans was associated with higher levels of biomarkers of oxidative stress compared to whites.

- **Morehouse Training Program in Cardiovascular Sciences: NHLBI Minority Institutional Research Training Program**
  The intent of this award was to provide basic and population-based cardiovascular related research training to pre-doctoral and post-doctoral students. CVRI's NIH T32 Training Program generated trainees who have continued their success at prestigious academic institutions, government agencies and private industry.

The ongoing process of strategic planning and evaluation has enabled CVRI to enhance MSM's educational programs, establish a robust research infrastructure and create a nationally recognized scientific portfolio in Cardiovascular Science.

To learn more, visit http://www.msm.edu/research/research_centersandinstitutes/CVRI.aspx .

Collaborating Centers and Institutes

The Neuroscience Institute (NI) is composed of faculty members from the Departments of Neurobiology, Pharmacology, Toxicology and Medicine at MSM. The institute's work is focused on two main areas: 1) Circadian Rhythms and Sleep Disorders (CRSDP) and 2) The Neuroprotection, Neurorepair and Stroke Program (NNSP), which includes acute brain injury such as stroke, traumatic brain injury and epilepsy, as well as Translational Research Programs in Stroke. In 2010, the NI received NHLBI funding for a **T-32 Interdisciplinary Sleep/Cardiovascular Research Training Program.** The overall goal of this training program is to attract talented under-represented minority pre- doctoral students to MSM and train them so they are prepared to pursue independent research career opportunities in Clinical and Translational Research (CTR) thereby augmenting the number of highly skilled investigators pursuing CTR related to clinical cardiovascular disease and sleep disorders. The NI and CVRI have worked together on thesis committees of graduate students and engaged in collaborative research projects, publications and grant submissions related to cardiovascular disease and sleep disorders.

Prevention Research Center (PRC) is one of 26 network of academic research centers funded by the **Centers for Disease Control and Prevention (CDC)** to achieve local and national health objectives focused on gaining knowledge about the best methodologies for solving the nation's obstinate health problems. These centers engage in interdisciplinary applied prevention research in collaboration with community partners; federal, state, and local agencies; as well as other universities. The CVRI has collaborated with the PRC in community education and community outreach efforts related to community-based interventions designed to increase physical activity and improve diet as a means of preventing cardiovascular disease.

Satcher Health Leadership Institute (SHLI) is led by Dr. David R. Satcher, 16th US Surgeon General. The SHLI mission is to develop a diverse group of public health leaders and influence policies and practices toward the ultimate elimination of disparities in health. Dr. Satcher's leadership experience and expansive professional network has provided superlative collaborative support to the CVRI.

The National Center for Primary Care (NCPC) is an academic research, training, and resource center focused on promoting excellence in community oriented primary care and optimal health outcomes for all Americans, with a special emphasis on eliminating health disparities and improving health outcomes in underserved populations. The NCPC and CVRI have developed an effective collaborative relationship that includes joint projects related to clinic-based interventions designed to improve cardiovascular outcomes within **Federally Qualified Health Centers (FQHC).**

External Partners

Atlanta Clinical and Translational Science Institute (ACTSI) is a city-wide, inter-institutional NIH Clinical and Translational Science Award (CTSA) partnership in metropolitan Atlanta with Emory University, Morehouse School of Medicine and Georgia Institute of Technology. The ACTSI is an inter-institutional magnet that concentrates basic, translational, and clinical investigators, community clinicians, professional societies, and industry collaborators in dynamic clinical and translational research projects. This strategic multi-institutional alliance

offers compelling, unique, and synergistic advantages. In addition, the MSM-ACTSI is linked to the **Community Physicians Network (CPN)**, a practice-based consortium that has grown to a diverse group of 65 primary care practices and 20 sub-specialty and surgical practices with over 350,000 annual out-patient visits throughout Metropolitan Atlanta.

MSM has productive working relationships with the following healthcare institutions to acquire patient referrals for clinical research: 1) **Grady Memorial Hospital Health System** and its associated satellite clinic system (900 beds, 40,000 admissions/year; over 750,000 clinic visits). Grady Memorial Hospital is a safety net hospital that is shared by both Emory and MSM as a major teaching and patient care delivery site. 2) **South Fulton Medical Center** (250-beds); 3) **Morehouse Medical Associates**, the clinical faculty's private practice group at multiple community based sites (approximately 100 practitioners); and 4) MSM-affiliated Federally Qualified Health Centers (West-End; Southside).

Morehouse School of Medicine Resources

The CVRI has more than 7000 sq. ft. of research space in the MSM Research Wing, Multi-disciplinary Research Center and the National Center for Primary Care buildings. Morehouse School of Medicine has a full array of state-of-the-art core facilities. Having the cores in place allowed MSM to compete and be awarded a $10 million grant opportunity to renovate the Medical Education Building (MEB) 2nd floor and centralize the MSM biomedical research support equipment to expand our research capabilities. The renovation/centralization plan created a state-of-the-art, common physical space that facilitates integration of all our research cores. The renovation has been completed and the once campus-wide cores have been centrally located to the new area. The following resources are accessible to all researchers at MSM, including the researchers in the CVRI.

- There are five “umbrella” cores that encompass multiple associated labs:
  1) Analytical Chemistry/ Protein Profiling (ACPP): Proteomics, 2D Gel Electrophoresis.
  2) Biomedical Technology Service Labs (BTSL): several multiuse equipment laboratories and a Monoclonal/ Polyclonal Antibody Production Lab.
  3) Cell and Tissue Imaging: Electron Microscopy, Molecular Histology, Flow Cytometry and Cell Sorting, Imaging.
  4) Gene Profiling: Functional Genomics, DNA Sequencing, Human Genotyping, Bioinformatics.
  5) Biological Manipulation: Zebra Fish, Stem Cell, Microparticle Manipulation.

- **Clinical Research Core Services** provide a centralized infrastructure for consolidating and coordinating several key functions in support of clinical and translational research including: Participant Clinical Interaction Resources (PCIR); Pilot Projects and Career

Development Programs and Biomedical Informatics Units.

- **The PCIR has five fully equipped examination rooms**; **16-bed** study participant **observation units**; cardiovascular laboratory (equipped with echocardiography, exercise treadmill, vascular ultrasound and vascular function analysis instruments); and kitchen for nutrition science.

- **MSM Sleep Diagnostics** is a professional full service **Sleep Disorder Center** which offers MSM researchers assistance in properly diagnosing conditions that prevent sleep, disrupts sleep or affects the sleep wake cycle. This center is available to evaluate pediatric (starting at age 12) to geriatric patients.

- **Center for Laboratory Animal Resources (CLAR)** provides complete animal care for all laboratory animals used for research and/or teaching purposes. As requested by investigators, CLAR receives and places into appropriate housing all laboratory animals used for research and/or teaching purposes. CLAR also provides complete clinical health care and/or diagnostic services for all laboratory animals and provides consultation on veterinary, regulatory, and/or animal model aspects of laboratory animal use.

- **Study Design, Biostatistics & Data Management Core (SDBDMC)** provides MSM researchers with advice and support to appropriately design and conduct qualitative study design, data analysis and statistical computing. Other services include sample selection, data collection, analysis interpretation, statistical methods report preparation, and live seminars.

Informal inquiries and additional information requests can be directed to the Chair of the Search Committee:

Gianluca Tosini, PhD
Chair, Selection Committee for CVRI Director
Professor & Chair, Department of Pharmacology & Toxicology
Director, Circadian Rhythms and Sleep Disorders Program
Interim Chair, Department of Physiology
Morehouse School of Medicine
720 Westview Drive SW
Atlanta, GA 30310 – 1495

Email: gtosini@msm.edu Phone: 404-756-5214

To apply, please submit your Letter of Interest and Curriculum Vitae to Dr. Gianluca Tosini.