Location
The USF Health Heart Institute
Morsani College of Medicine
University of South Florida

Position Summary
The Heart Institute brings together a critical mass of basic science, translational, and clinical researchers to address unmet medical needs related to cardiovascular disease (CVD), the number one killer of Americans today.

Dr. Samuel Wickline M.D., Professor of Medicine, TGH Endowed Chair of Cardiovascular Medicine, Director of USF Health Heart Institute, joined the University of South Florida in November 2016 and brings active research programs from Washington University School of Medicine. Dr. Wickline's laboratory, funded by NIH, is a multidisciplinary basic and applied research environment and training venue with a translational focus. Our research activities cross many Departments, Schools, and Institutions to create and deploy new diagnostic imaging and therapeutic technologies for myriad diseases including cardiovascular, cancer, hematology, renal, pulmonary, infection, metabolism, gastrointestinal, orthopedic, gynecological, among others. Graduate students and postdoctoral fellows are represented from many Departments including Biomedical Engineering, Physics, Medicine, Pathology, Molecular and Cellular Biology, and Computational Biology among others. Please see: http://health.usf.edu/medicine/cardiology/faculty/2871501/Wickline

Immediate opening for one PhD staff scientist or PhD postdoctoral candidate to join a highly translational molecular imaging group to develop, optimize, and apply novel theranostic nanostructures to selected experimental pathologies. The appointee will have earned a Ph.D., in Biomedical Engineering, Physics or other related disciplines with a specific background in magnetic resonance imaging and spectroscopy. Experience with in vivo cardiovascular and cancer imaging of experimental small animals (mice, rats, rabbits, etc.) is required with either or both clinical (1.5-3T) and high field (4.7-11.7T) experimental MRI platforms, along with coil design and fabrication experience. Opportunities exist for participation in multiple ongoing NIH-sponsored projects including but not limited to:

- Develop new nanomedicines that can safely modulate inflammation in the host and preserve joint integrity without compromising the immune system. Nanostructures targeted to joint epitopes carrying siRNA, miRNA, or plasmids addressing NF-kB and other inflammatory signaling pathways (JNK, JAK/STAT, etc.) will be employed.
- The development and testing of nanoparticle-based approaches for the diagnosis and therapy of cardiovascular diseases to detect, treat, and monitor unstable atheroma and acute myocardial infarction. We seek to develop new molecularly targeted nanotherapies that interrupt inflammatory signaling molecules with the clinical goal of reducing the propensity toward thrombosis in acute vascular syndromes.
- Design and deploy new nanoparticle therapeutic agents that are active against selected inflammatory signaling pathways (e.g., NF-kB, apoptosis: Bak/Bax, and thrombin/PAR-1) in unique and effective formulations that provide localized sustained release of agents (peptides, siRNA) that may be complementary and synergistic in early and advanced AKI, or even when applied as preventative measures.
The selected Candidate is expected to work independently, with other lab members, and under general supervision of Collaboratory PI(s), in concert with the Principal Investigator to move the project(s) forward effectively. The selected candidate may be responsible for the following activities: Following the research directions to develop and implement research strategies based on thorough and rigorous literature reviews; Making independent judgment and back it back with sound rational; Recommending changes to research protocols; Collecting data during research study appointments, data entry, and data management as well as data interpretations; Writing research protocols, reports, abstracts, and manuscripts.

The ability to work evenings and weekends to accommodate specific research schedules is required.

The value of diversity of people, thought, perspective and experience, is well recognized and appreciated. The selected candidate is expected to be able to work with diverse students, trainees, and colleagues. Also, expected is the confidence of sharing both failures and successes in the research and the desire to support others and contribute to the growth of the team.

Information regarding Staff and Administration benefits can be found by visiting the following website: [http://www.usf.edu/work-at-usf/benefits/](http://www.usf.edu/work-at-usf/benefits/)
In order to apply for this position, please visit the USF Careers website ([http://www.usf.edu/work-at-usf/careers/](http://www.usf.edu/work-at-usf/careers/)) and click on “Access Careers@USF.” From there, search for job ID 13054 and follow the directions listed in the posting to apply. Please make sure to upload your cover letter, CV, and at least 3 references (one reference must be current your current supervisor) as one attachment before submitting your application.

**Preferred Qualifications**

- Strong organization skills and significant attention to detail.
- Outstanding strategic thinking, planning and communications skills.
- Self-motivated and able to initiate necessary actions without instruction.
- Ability to remain on-task and simultaneously manage multiple aspects of the daily workload.
- Ability to work both independently and with a team, resolving issues promptly and with a positive outcome.
- Very high level of integrity, ethics and professionalism.
- Very strong verbal and written communication skills and computer skills.
- Demonstrated experience in computer programming.
- Demonstrated ability to maintain respect towards supervisors and peers.

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