Comprehensive Program on Obesity - Available Positions as of 10/17/16

The NYU Langone Comprehensive Program on Obesity aims to better understand, treat and manage obesity at the population and clinical levels, and strives to prevent and cure the disease within one generation.

Obesity is complex and multi-faceted, with genetic, environmental, social, and medical causes. This complexity may be why we currently have limited evidence-based approaches for the prevention, treatment and management of obesity. To better address obesity, we must develop a more complete understanding of how health behaviors are shaped through integrating cutting edge observations and discoveries from population health, clinical and basic science. We work across four domains: multidisciplinary research, data science, clinical care, and education. Our cross-cutting research program engages researchers across the NYU Langone Medical Center’s (NYULMC). Drawing on our strengths, we will create a “DataBridge” capable of integrating large amounts of complex data to determine unique causal pathways and strategies for treating and preventing obesity. Key insights will be translated into real, evidence-based obesity prevention, treatment, and management solutions.

We are currently seeking to fill the following positions:

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<th>Administration</th>
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<th>Research</th>
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<td>▪ Informaticist ▪ Sr. Data Scientist ▪ Data Scientist</td>
<td>▪ Research Program Manager ▪ 2 Research Data Associates (translational) ▪ Research Data Associate (basic science)</td>
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Further details are below. To apply, send resume and cover letter to obesity.initiative@gmail.com with the title of the job you are seeking in the subject line.
**Program Director**

**POSITION SUMMARY:** The Program Director will provide administrative leadership and direction in collaboration with the Obesity Program’s Director and co-Director. This individual is solely responsible for overall management and operations, working independently to ensure the timely development and execution of activities across the Program. Because of the Program’s strong reliance on big data, an individual with knowledge of data sciences and systems is preferred.

**JOB RESPONSIBILITIES**

1. Oversee all management and operations creatively and with strong vision. Ensure all areas of the Program are making strides, meeting goals, and producing deliverables. Weave together the various arms of the Program to advance toward larger goals.
2. Develop and maintain Program budgets and sub-budgets, including revisions, projections, and planning. Construct long-term financial plans and keep Directors well aware of future picture.
3. Monitor the funding landscape, identify funding opportunities, and develop and write proposals and grants. Edit grant proposals, work with faculty and contributors to refine and develop pieces.
4. Create long- and short-term plans and ensure they are implemented.
5. Plan and lead advisory board meetings, prepare materials and reports for senior institutional officials, and write progress summaries.
6. Promote the Obesity Program within NYU School of Medicine and work to foster expansion and collaboration.
7. Foster alliances and partnerships with appropriate external agencies.
8. Hire and oversee staff.
9. Thoughtfully monitor programs, processes, and outcomes, instituting changes when needed.
10. Anticipate and ensure activities are supported by appropriate resources (personnel, fiscal, space, and equipment).
11. Establish and maintain communication systems across teams, shape communications and messaging.
12. Advance strategic initiatives and management of the day-to-day operations.

**MINIMUM QUALIFICATIONS**

Skills: Strong manager with skills in change leadership, financial expertise, strategic planning, and grant writing.

Master’s degree with 5-7 years of management experience

**PREFERRED QUALIFICATIONS**

PhD in data science, computer science, or related discipline with a strong history of management

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### Informaticist

**POSITION SUMMARY:** This leadership role will drive the Comprehensive Obesity Program’s push to revolutionize the way data and analytics are utilized to inform obesity research. The individual will oversee core data, informatics, and analytics Program-wide. Early on, this individual will draw on diverse resources to design and build a large-scale repository for integration of diverse data fostering innovative merging of clinical, basic, and population health data (“DataBridge”) and manage DataBridge operations and access.

**JOB RESPONSIBILITIES**
1. Develop vision and drive the development, creation, and maintenance of the repository for diverse data integration.
2. Identify and access institutional data science resources
3. Proactively address challenges and opportunities in building the data repository
4. Provide leadership for the data science team
5. Keep informed of new technologies, developments, methods and ideas, particularly in machine learning and big data, and suggest innovation whenever possible
6. Experiment and innovate
7. Think creatively about future needs

**MINIMUM QUALIFICATIONS**
- PhD in Data Science, Computer Science, or similar field.
- Deep familiarity with the process of developing a data-driven system.
- Comfort in designing APIs for large-scale software is a major plus. If you have participated in building open-source software either on github or anywhere else please let us know.
- Able to write code well in Python, R, or C++.
- Familiarity with the large scale computational infrastructure including distributed computing frameworks (for both CPU and GPU) is a plus.
- Comfort with mathematics and statistics, and familiarity with a few major open source statistical packages. Experience in large scale Bayesian analysis and graphical models, Supervised-, Unsupervised-, or semi-supervised learning, and deep learning is a plus.
- Ability to think independently and being passionate about solving big problems in the health-care domain.
- Great communication skills.

### Sr. Data Scientist

**POSITION SUMMARY:** Takes a lead role in building and testing a large, comprehensive repository for integration of diverse data pertaining to obesity (basic, clinical, and population sciences). Contributes to the creation of a user-friendly infrastructure that integrates and makes usable diverse and disparate data, and provides foundations for integration of advanced machine learning methods. Conducts wide-ranging analyses on these data, interprets and presents outcomes.

**JOB RESPONSIBILITIES**
1. Cultivate deep familiarity with methodological approaches and data from diverse sources including big data platforms, large administrative...
databases, small-scale survey data, clinical and basic science, and others, and work to construct a database integrating them together.

2. Build and test large, comprehensive repository for integration of diverse data (basic, clinical, and population sciences).
3. Continually oversee ongoing additions to database. Develop, manage, and improve databases to track provenance and versioning.
4. Advanced programming.
5. Conduct comprehensive statistical analyses according to the study design (e.g., cross-sectional, time series, difference-in-difference, machine learning) and prepare sophisticated reports, charts and tables. Accurately and appropriately interpret and communicate results.
6. Monitor, evaluate, and improve data quality. Detect and address issues in data, analytic results, and databases.
7. Suggest innovative solutions to data questions.
8. Develop programs, methodologies, and files for analyzing and presenting data. Clearly communicate processes used and results achieved, and suggest new and alternative approaches.
9. Participate in data-driven decision making with investigators.
10. Conduct relevant literature reviews to inform cohort selection, variable definitions, and analytic methods.
11. Assist in writing and editing manuscripts for publication.

**MINIMUM QUALIFICATIONS**
Masters in Data Science and 5-6 years experience in database construction. We are open to considering advanced and early-career data scientists.
- Familiarity with major machine learning models and data mining techniques.
- Able to write code well in Python, R, or C++. Prior extensive experience with Python.
- Experience with SQL database design and operations.
- Passion about being part of a team that solves big problems in health care.

**PREFERRED QUALIFICATIONS**
- Familiarity with electronic health record databases.
- Familiarity with data driven modeling (including gathering and cleaning data, exploratory analysis, implementing models, error analysis, and presenting the findings).
- Comfortable with interfacing between database and python-pandas or other packages.
- Experience with a few machine learning open-source packages (such as sklearn).
- Excellent communication skills.

**Data Scientist**
**POSITION SUMMARY:** Helps to test a large, comprehensive repository for integration of diverse data pertaining to obesity (basic, clinical, and population sciences). Contributes to the creation of a user-friendly infrastructure that integrates and makes usable diverse and disparate data, and provides foundations for integration of advanced machine learning methods. Conducts wide-ranging analyses on these data, interprets and presents outcomes.

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### JOB RESPONSIBILITIES

1. Cultivate deep familiarity with methodological approaches and data from diverse sources including big data platforms, large administrative databases, small-scale survey data, clinical and basic science, and others, and work to construct a database integrating them together.
2. Test large, comprehensive repository for integration of diverse data (basic, clinical, and population sciences).
3. Continually manage ongoing additions to database. Import and clean raw datasets and create analytic datasets. Develop, manage, and improve databases to track provenance and versioning.
4. Advanced programming
5. Conduct comprehensive statistical analyses according to the study design (e.g., cross-sectional, time series, difference-in-difference, machine learning) and prepare sophisticated reports, charts and tables. Accurately and appropriately interpret and communicate results.
6. Monitor, evaluate, and improve data quality. Detect and address issues in data, analytic results, and databases.
7. Develop programs, methodologies, and files for analyzing and presenting data. Clearly communicate processes used and results achieved, and suggest new and alternative approaches.
8. Participate in data-driven decision making with investigators.
9. Conduct relevant literature reviews to inform cohort selection, variable definitions, and analytic methods.
10. Assist in writing and editing manuscripts for publication.

### MINIMUM QUALIFICATIONS
- Masters in Data Science, Machine Learning, Computer Science or related area
- One year data analysis/machine learning experience
- Familiarity with major machine learning models and data mining techniques.
- Able to write code well in Python, R, or C++. Passion about being part of a team that solves big problems in health care.

### PREFERRED QUALIFICATIONS
- Familiarity with electronic health record databases.
- Familiarity with data driven modeling (including gathering and cleaning data, exploratory analysis, implementing models, error analysis, and presenting the findings)
- Extensive experience with Python.
- Comfortable with interfacing between database and python-pandas or other packages.
- Experience with a few machine learning open-source packages (such as sklearn)
- Excellent communication skills

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<th><strong>Research Program Manager</strong></th>
<th><strong>POSITION SUMMARY:</strong> This senior-level project manager with a strong scientific background (human subjects and/or bench research) oversees studies examining weight trajectory outcomes for bariatric surgery patients. This individual is a scientific partner and also has substantial leadership and administrative responsibilities.</th>
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<td><strong>JOB RESPONSIBILITIES</strong></td>
<td><strong>1. Research Development:</strong> Creatively helps PI to shape the research protocol. Assists in measurement development, survey design, data management. Develops and writes protocols and plans to ensure studies are properly powered and supported, and data is managed. Anticipates potential barriers to the success of the project, and suggests and implements creative solutions. Contributes insight regarding direction and progress at stakeholder and Program-wide meetings. Prepares and delivers current, organized updates. Conducts data analyses and drafts reports. <strong>2. Reporting and Data Analysis:</strong> Prepares progress reports to funding agencies and presentations to sponsoring and regulatory agencies. Prepares and provides reports to all necessary parties (e.g., the Principal Investigator, sponsoring agency, etc.) on the progress of the study as needed. Responsible for database management, maintaining oversight of data collection procedures and monitoring quality of data collected.Analyzes data collected, formulates, prepares database and generates reports for review by the Principal Investigator. Develops first drafts of manuscripts, abstracts, and professional presentations. <strong>3. Project Management:</strong> Uses judgement to oversee planning/management of study activities and projects, and coordinates with internal and external parties to initiate, run, and conclude this major research program. Organizes and leads regular project meetings. Develops study manual of operations and staff training materials and trains staff members on study protocol. Reviews progress of project and initiates appropriate actions to achieve target objectives. Communicates project status to Principal Investigators, subcontractors, consultants, and other study staff. <strong>4. Financial:</strong> Monitors budget throughout trial and recommends rebudgeting/adjustments as appropriate. Monitors subcontractors and consultants to ensure billing practices correspond with work performed. Develops draft and final budgets for new projects together with Program Directors. <strong>5. NYU Office of Clinical Trials/IRB:</strong> Prepares submission of necessary documents required by the NYU Institutional Board (IRB), NYU Office of Clinical Trials in order to obtain approval to conduct human subjects’ research. Liaises appropriately with international collaborators on IRB submissions at international sites (if applicable). Ensures the accurate execution of research protocols in accordance with Good Clinical Practices, HIPAA and required obligations to patient/subject, Principal Investigator, research team and the sponsor. Monitors any outward effects or issues regarding patient/subject safety and reports this to the appropriate party. Responsible for submitting monthly enrollment</td>
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statistics to the Office of Clinical Trials and reporting accruals to the funding agency as necessary.

6. **Study Regulations**: Aware of study regulatory status and keeps an up to date copy of regulatory documents. Monitors any outward effects or issues regarding patient/subject safety and report this to the Principal Investigator.

7. **Recruitment**: Manages participant and site recruitment for study. Develops and implements tracking system for recruitment and retention of sites/participants. Monitors participant accruals to ensure milestones are met according to project timeline and to facilitate timely reports to funding agency.

8. **Personnel Management**: Supervision of research staff, including scheduling, evaluation, ensuring roles and responsibilities are being carried out, and providing support for professional development activities.

**MINIMUM QUALIFICATIONS**
Master’s degree with more than 5 years of clinical research experience
Interest in obesity and the intersection of clinical, basic, and population health sciences.
- Clinical trial or basic science experience
- Succinct scientific writing
- Ability to draw together diverse stakeholders
- Strong administrative skills
- Data analysis experience (SPSS, SAS, or qualitative research analysis)
- Experience in or familiarity with health care settings
- Excellent communication

**PREFERRED QUALIFICATIONS**
PhD in related area
Data and project management experience

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**Research Data Associate (translational research) -2 needed**

**POSITION SUMMARY**: Assists with studies examining weight trajectory outcomes for bariatric surgery patients. This includes recruiting, screening and enrolling patients; sample processing; tracking; and clinical and non-clinical data entry. As part of this work, the Associate will support the project by collecting and auditing patient information; formatting and cleaning data in databases; ensuring compliance with all study and regulatory guidelines; reviewing all data collected and conferring with supervisors on issues that deviate from guidelines; assisting with the informed consent process and ensuring that the patient fully understands what is required of them throughout the study. They will follow through regularly with the patients, keeping them engaged and reminding them of visits and compliance.

**JOB RESPONSIBILITIES**

1. **Participant Recruitment**: Recruit and screen patients for eligibility. This may include gathering information from the medical record, physician referral, advertisement and directly scheduling a visit to evaluate the patient/subject. Review all the elements of the screening process with the Principal Investigator: inclusion/exclusion criteria, completed informed consent,
documentation of the event and the patient/subject willingness to participate in the study.

2. **Data Collection:** With enrolled patients, complete necessary paperwork, questionnaires, and tests. Review collected data, edit obvious errors, and obtain missing information. Document all data accurately and neatly. Maintain patient confidentiality. Adhere to adverse events reporting protocols.

3. **Participant Tracking:** Track participant flow through the study and update tracking logs in an accurate and timely manner. Maintain participant tracking databases for compliance with data monitoring and confidentiality protocols. Contact participants to schedule them for study visits and send retention reminders. Engage patients in retention.

4. **Data Management:** Responsible for collecting and auditing patient information for the research project and entering collected data to the database. This may include abstraction of data from the patient chart (e.g., laboratory or diagnostic test results, surgical/radiation treatments delivered, adverse drug reactions, etc.); abstraction of data for publications, or data collection from outside physicians’ offices. Audit and manage data in the database. Prepare forms and reports, compile and analyze data, statistics, and other materials for reports.

5. **Site Relationships:** Establish and maintain positive relationships with recruitment sites and participants. Demonstrate effective and professional communication with recruitment sites and study participants.

6. **Project Knowledge:** Demonstrate mastery of research protocol. Have a thorough knowledge of current department research studies and their rationales.

7. **Research Administration:** Assist with research administration, which could include editing abstracts, manuscripts, and grants and preparing materials for submission to internal oversight offices such as the Office of Clinical Trials or the Institutional Review Board.

8. **Sample Collection:** May receive and facilitate storage of biological samples.

**MINIMUM QUALIFICATIONS**
Associate’s degree with minimum 2 years of Research Assistant experience or project coordination in a research setting. Or Bachelor’s degree with 1 year of experience
Highly organized.
Excellent interpersonal, writing and verbal communication skills.
Proficiency in using various Microsoft Office applications such as Word, Excel, Access, Power Point and Outlook. Familiar with Internet applications.
Ability to interface effectively with all levels of management and must work and communicate effectively with both internal and external customers.
Ability to work within a team environment as well as independently.

**PREFERRED QUALIFICATIONS**
Bachelor’s degree or Master’s
Experience assisting with clinical research

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**Research Data Associate (basic science)**

**POSITION SUMMARY:** Assists with studies examining weight trajectory outcomes for bariatric surgery patients by conducting basic laboratory bench research on human subject materials. Procures materials and transports the material in a temperature-appropriate manner. Experiments to include fluorescence activated cell sorting of tissue samples, preparation of mRNA and the performance of other biochemical/molecular analyses required for the studies. Maintains careful records of the data procured from each sample / subject and enter all obtained data into database.

**JOB RESPONSIBILITIES**

1. **Sample collection:** Retrieve human subject samples from various clinics and hospital settings. Work with the clinical coordinators to arrange the procurement of tissue from colleagues in a timely manner. Arrange for appropriate storage. Ships samples as needed to collaborators.

2. **Sample processing:** Process samples, including fluorescence activated cell sorting of tissue samples, preparation of mRNA or protein lysates from tissue samples and handling and preparation of samples for performance of RNA-sequencing analyses, real-time quantitative PCR, ELISA, Western blotting and other molecular and biochemical techniques required for the full scale analysis of metabolic tissues.

3. **Record keeping:** Keep careful records of all subject material procurement and analyses in the databases for coordination across the entire research team. Maintains complete and accurate record of all laboratory procedures.

4. **Laboratory responsibilities:** Laboratory duties such as ordering of supplies and preparation and shipment of materials to distinct collaborators.

5. **Participant recruitment and tracking:** May assist with recruiting and screening patients, gathering patient information, and scheduling visits if needed. May assist with updating tracking logs and patient progress through the study as well as general database cleaning and management.

**MINIMUM QUALIFICATIONS**

- Associate’s degree with minimum three years of experience in basic biomedical research.
- Experience with fluorescence activated cell sorting of tissue samples, preparation of mRNA or protein lysates from tissue samples and handling and preparation of samples for performance of RNA-sequencing analyses, real-time quantitative PCR, ELISA, Western blotting and other molecular and biochemical techniques required for the full scale analysis of metabolic tissues.
- Highly organized.
- Excellent interpersonal, writing and verbal communication skills.
- Proficiency in using various Microsoft Office applications such as Word, Excel, Access, Power Point and Outlook. Familiar with Internet applications.

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| • Ability to interface effectively with all levels of management and must work and communicate effectively with both internal and external collaborators.  
• Ability to work within a team environment as well as independently. |

**PREFERRED QUALIFICATIONS**
Bachelor’s degree

**WORKING CONDITIONS**
Basic biomedical research laboratory. Procurement of human samples will be required.