

## Proposed ARC- “Metabolic Clinical Research Collaborative”

Metabolic disease, a cluster of various medical conditions, requires a multifaceted and multidisciplinary research approach to medical discoveries, diagnostics and therapy. The proposed new “Metabolic Clinical Research Collaborative” (MCRC) will provide a collaborative environment that encourages alliances between epidemiologists, clinicians, nutritionists and basic research scientists with the ultimate goal to improve patient care at BUMC. Unique “Clusters of Expertise” (**CE**) at conceptual and technical levels, comprised of clinical and basic researchers will be established within the MCRC, dedicated to instituting externally funded translational research programs that take advantage of the diverse patient population at BUMC. Proposed **CEs** include the study of 1) type 1 diabetes, 2) obesity and type 2 diabetes, 3) non-alcoholic fatty liver (NAFL) disease and 4) polycystic ovary syndrome. Importantly, we anticipate several mechanisms to be common to these pathologies, and synergetic approaches will allow us to identify those, as well as distinct features underlying each disease. The MCRC initiative is poised to accomplish a number of goals, which we believe to be of primary importance in maintaining BUMC’s status as an elite clinical research institution, including:

- 1) *Establish* **CEs** with the purpose of developing translational grants combining clinical, basic and population science from inspiration to submission. **CEs** are designed to provide increased research opportunities for both clinical and basic scientists with the aim of benefiting patient care.
- 2) *Mentor* clinicians pursuing careers as biomedical researchers at BUMC to *promote* the careers of young clinical scientists who have been successful at obtaining initial funding by helping them to achieve the next step. Mentoring teams consisting of both clinical and basic scientists will be established to provide individual career counseling.
- 3) *Create* opportunities to support both basic and clinical investigators by providing technical expertise (**TE**) services made available by ARC **CE** members. Investigators will make use of **TE** services in cases where collaborative efforts are limited due to funding restrictions.
- 4) *Invite* Clinical Research Leaders to speak and participate in discussions relevant to the Centers within the ARC.
- 5) *Budget* support for ongoing clinical trials related to the specific goals of the ARC Centers.

Our first two goals have already been put in practice as there are now two **CEs** that have come together with the purpose to formulate and submit clinical research grant applications, namely **CEs** for Type 1 Diabetes (T1DC) and Obesity and Type 2 Diabetes (ODC). Since their inception, grant applications (submitted and planned) from members of these groups include a Juvenile Diabetes Clinical Career Development Award (T1DC) and a multi-PI R01 for submission in October, 2016 (ODC).

The Metabolic Clinical Research Collaborative will be led by an advisory board made up of representative members of all participating Centers, headed by the following directors: Jude Deeney and Markus Bachschmid, with the mentoring of Barbara Corkey. Participating members and their affiliations are listed on the following page. Together, the pre-ARC will envision and prioritize 2-3 main goals for collaborative research in the first year of ARC funding. This support will jump start innovative projects in line with the global mission of this ARC.

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