

*The Georgia Tech/Emory Center (GTEC) for the Engineering of Living Tissues
and The Atlanta Clinical and Translational Science Institute (ACTSI),
Established by an NIH Clinical and Translational Science Award (CTSA)*

Request for Grant Applications:
Planning for the Future of Regenerative Medicine in Atlanta

Deadline: September 10, 2008

Introduction: The Georgia Tech/Emory Center (GTEC) for the Engineering of Living Tissues and the Atlanta Clinical and Translational Science Institute (ACTSI) have partnered in the establishment of this interinstitutional grant program for regenerative medicine. ACTSI was established in the last year with the CTSA award received from NIH. Partners with Emory on this are both Georgia Tech and Morehouse School of Medicine (MSM). Since GTEC needs to move into more translational efforts, this partnership with Emory and with MSM represents an important collaboration in moving regenerative medicine in Atlanta forward.

GTEC was established in 1998 by the National Science Foundation as an Engineering Research Center with the mission to develop critical core technologies for tissue engineering. GTEC has had a very successful first 10 years, fostering collaborative research, developing internationally recognized leaders of regenerative medicine at Georgia Tech and Emory, and advancing research in regenerative medicine; however, as GTEC looks ahead to its post-NSF funding years, a central mission will be to nurture and seed the formation of interdisciplinary research ideas and teams that will generate large, competitive team and/or center proposals in the next two to four years.

Background: Regenerative medicine has the potential to revolutionize health care and provide therapeutics for currently untreatable conditions. Several compelling challenges/ideas/research themes related to regenerative medicine remain to be explored including, for example:

- technologies for stem cell therapies (imaging, bioreactors, materials, cell engineering etc);
- understanding the role of inflammation and the immune system relative to implants, healing response or transplanted cell fate;
- adaptive or rationally designed materials for endogenous repair or reconstruction of tissues or imaging, and/or biomolecular reporters for non-invasive monitoring of tissue health and pathologies.

Because of the multifaceted nature of the field, research projects require team approaches combining areas of expertise.

Goals: The goals of this request for applications are to: (1) foster research that will unearth ideas and/or themes that will be the foundation of team-based or center proposals; (2) develop collaborative teams around which the larger proposals can be formed; and (3) produce preliminary data that will support the proposals and establish a track record for the team. This RFA may be viewed as being a **planning grant** for a larger, multi-disciplinary proposal to be submitted for external funding.

Eligibility: Only permanent, full time faculty in the professorial ranks (assistant, associate, full) may apply.

Budgets: 4-6 proposals will be funded, ranging in size up to **\$100,000 in direct costs for the first year**. Teams consisting of members from more than one institution are strongly encouraged. Funds may be used for salary and fringe benefit support of faculty, graduate students and other research staff, but may not be used for general staff or administrative support. Operating supplies, minor equipment items, and travel directly associated with the research activity are eligible for support. Publication expenses will not be supported.

Criteria: Proposals will be selected based on the following criteria: (1) scientific excellence, (2) likelihood of obtaining external funding, (3) formation of interinstitutional teams that involve an interdisciplinary approach, (4) the strength of the team, and (5) potential for clinical relevance. Such proposals must be submitted by teams comprising 4-8 investigators (with larger groups encouraged), identifying the lead investigator or co-lead investigators. Investigators may participate in more than one team, but cannot be PIs on more than one proposal. Proposals should explain the importance of the proposed area to regenerative medicine (note that the areas listed in the background are example areas and while they may serve as fine areas for a proposal, they are not intended to limit the areas that will be considered in any way). Additionally, proposals should include a map for submitting a competitive, external, team or center based proposal in the 2nd or 3rd year of the project and identifying appropriate opportunities for its submission (NSF ERC/STC, DARPA, NIH program projects, BRPs or Translational Research Grants). Grants may be renewed after Year 01 based on satisfactory progress and the availability of funds.

Format: Proposals should not exceed five pages, excluding a cover page, a budget page and a two-page NIH format biosketch of co-investigators. The cover page must contain the project title, names of the investigators, amount requested, a one-paragraph summary, and the approval/signature of the department chair of the PI/Co-PI. Year 01 award recipients will be required to provide both a written and oral progress report and demonstrate evidence of submission of competitive proposals to external funding agencies. Renewal after Year 01 will be contingent upon progress and availability of funds.

The grant proposal **must** include:

- Significance
- Description of the project and subprojects and how the science may be translated to pre-clinical or clinical studies
- Team for this proposal and for the planned center/team proposal
- Goals and milestones, including submission plan for smaller R01 scale proposals along the way.
- Timeline of the project, including the plan for submitting a large proposal (and appropriate agencies and RFAs)

Submission: Proposals should be submitted online through the Future of GTEC online submission site: <http://www.gtec.gatech.edu/FutureofGTEC> by **5:00 pm on September 10th, 2008** and **new funding is expected to commence starting October 1, 2008**. Technical questions should be directed to the co-chairs: Ravi Bellamkonda, GTEC (404-385-5038, ravi@gatech.edu), Robert N. Taylor, ACTSI (404-727-9106, robert.n.taylor@emory.edu), and W. Robert Taylor, GTEC (404-727-8921, wtaylor@emory.edu). Each proposal will be peer-reviewed using experts internal and external to GT/Emory. In order to prepare for the review process, a letter of intent is requested by August 25th. This brief letter should include the title of the project, a short 100 word abstract, and a list of team members, and it should be submitted by e-mail to the co-chairs.