OUTREACH INCENTIVE GRANT FUNDING: END-OF-YEAR PROJECT REPORT

Title of Proposal: _____: Emphasizing the "E" in a STEM outreach project: Adding engineering components to the *Biology in a Box* program
Your Name: _____Susan E. Riechert_____ Project Date: entire grant period

Additional project support received from other university or external sources:

Source	Amount	Title
Arts & Sciences	26,528	Project Assistant to Biology in a Box Project
NIMBioS		Riechert salary release funds used for *Biology in a Box* materials costs

Please use this sheet to answer each of the following questions about your project (1-2 pp total)

1. **ASSESSMENT:** How did this project document or assess its engagement with the community?

   not applicable as funds were for development of a new STEM unit which is now only approaching potential use in enguagement

2. **PARTNERSHIP/RECIPROCITY:** How did the university and community work together? The collaboration with Georgia Tech engineer Brian Post worked excellently with a finished product achieved

3. **BENEFITS:** What were the benefits (University/community) of this partnership? The benefit will be State & nationwide as the following four sets of exercises under the new technology theme STEM I: Biomechanics have been developed: 1. From Skeletons to Bridges, 2. Projectile Motion, 3. Aerodynamics & Seed Dispersal, and 4. Seismic Communication. **See attached file with rough draft of the unit.** Prototypes of all materials & equipment required to explore these themes have been built and are being tested & modified to accommodate student use in secondary ed classroom contexts.

4. **SHARED DECISION-MAKING:** Did the community have a "voice" or role for input into this project? Aspects of the project were vetted at two workshops and by peer review in journals.

5. **SCHOLARSHIP:** Are there any examples of faculty scholarship that will be informed by this project? The theme in both powerpoint and pdf forms will be made available to the world-wide audience at the project's web-site. Additional publications in the science education literature are planned.

   Post, B.K. & S.E. Riechert. 2009. Bridging the Gap: Connecting Biology and Engineering in the High School Curriculum. Proceedings from the American Society for Engineering Education Southeast Section Conference 2009.

   Riechert, S.E. & B.K. Post. 2010. From skeletons to bridges & other STEM enrichment exercises for high school biology. *The American Biology Teacher* 72(1):20-22.

6. **CONCLUSIONS:** What conclusions and best practices can be drawn from the partnership? It has been an highly fruitful collaboration

7. **FUTURE PLANS:** What are the future plans for this partnership? We will be adding additional biomechanic topics to this STEM unit as biomimicry models attract our attention.