

Date: 10/29/2013

MEMORANDUM

TO: All TAMU, HSC, and AgriLife Faculty

THROUGH: Dr. Craig Nessler, Director, Texas A&M AgriLife Research
Dr. J. Martin Scholtz, Executive Associate Vice President for Research, Texas A&M University
Dr. David Carlson, VP for Research & Dean of Graduate Studies, Health Science Center

FROM: Dr. Charles D. Johnson, Director, Genomics and Bioinformatics, Texas A&M AgriLife Research

COPY: Dr. Mark Hussey, Vice Chancellor and Dean, College of Agriculture and Life Sciences
Dr. M. Katherine Banks, Vice Chancellor and Dean of Engineering and Director of TEES.
Dr. Glen Laine, Interim Vice President for Research, Texas A&M University
Dr. Bill McCutchen, Executive Associate Director, Texas A&M AgriLife Research
Dr. Robert Burghardt, Acting Associate Dean for Research and Graduate Studies, TAMU
Dr. Dimitris Lagoudas, Deputy Director, TEES
Dr. José Luis Bermúdez, Dean, College of Liberal Arts
Dr. Costas Georghiades, Associate Dean for Research, Texas A&M College of Engineering
Dr. David Threadgill, Director WSGI

SUBJECT: Texas A&M Genomics Seed Grant Program

Texas A&M Genomics Seed Grant Program FY2013-2015

All questions should be directed to Dr. Charles D. Johnson, director of Genomics and Bioinformatics Services for AgriLife Research, and associate director of the A&M System's Center for Bioinformatics and Genomic Systems Engineering. Charlie@ag.tamu.edu 979-862-3287

With the goal of empowering the next generation of cutting-edge genomics research at Texas A&M, members of the Texas A&M University System have contributed monies to provide their faculty with seed money to generate preliminary results for future grants submissions. These grants will allow faculty to initiate or expand their research in human, plant and animal genomics. The funds, totaling \$525,000, were provided by the Division of Research at Texas A&M University and its College of Agriculture and Life Sciences, and the Office of Research at Texas A&M Health Science Center, along with the A&M System's Texas A&M AgriLife Research. The Texas A&M Genomics Seed Grant Program is one of four funding initiatives totaling \$1.3M for genomics research across the System ([Link](#)).

Background: In the spring of 2011, AgriLife Research launched a \$400,000, peer reviewed genomics seed grant program. That program involved over 120 faculty, submitting over 50 proposals, of which 17 were funded. Funds were provided for both sequencing and bioinformatics analysis. The genomics seed grant program surpassed all expectation and has resulted in significant new discoveries, new technologies were developed that are now available to all TAMU faculty, and the preliminary data led to substantial new grant funding for the PIs involved. Findings from the genomics seed grant program have now supported over \$13.5M in new grant submissions, \$4.8M of which has been awarded to date. The work also resulted in a large number of publications.

In addition to meeting the current needs for preliminary data, the genomics seed grant program is unusual because it involves a direct investment in research facilities that will allow Texas A&M to grow future genomics programs. Funds were provided as service credits for next generation sequencing and bioinformatics within the AgriLife Genomics and Bioinformatics Service ([Link](#)). All faculty members that submitted proposals met with core staff, and worked collaboratively to develop an experimental plan to best utilize next generation sequencing (NGS) technology within their research programs. Based on this success, the program was expanded to include Texas A&M University, COALS/AgriLife Research, and the Texas A&M Health Science Center. We expect in the coming years that this program will be recognized as providing a foundation for genomics research across Texas A&M, Texas, and the world as our faculty tap into this technology and make discoveries that change the world.

Texas A&M AgriLife Genomics and Bioinformatics Service was established to provide access to genomic technologies and associated bioinformatics expertise across AgriLife, COALS, and the Texas A&M University System, addressing a central and pressing need for access to the latest NGS technologies and world-class expertise. The Illumina HiSeq 2500 has the ability to sequence a human genome in 24hrs (1st human genome sequenced took 13 years to complete). Core staff has built a strong collaborative network spanning the entire system, along with a growing number of private sector life science and agribusiness companies. Core scientists have worked with over 475 faculty, staff, and students drawn from over 20 departments, six colleges, and multiple agencies across the system. The core has served as a NGS and bioinformatics resource and as domain experts for over 210 grant submissions resulting in tens of millions in new funding for scientists across the system. Additionally, they have a growing national and international reputation, collaborating with scientists in over 12 different countries. ([For more information](#)).

*Texas A&M AgriLife Genomics and Bioinformatics Service
Ph: 979-862-3262 Email: TxGen@ag.tamu.edu*

Criteria for the Evaluation of Proposals:

Program Goal: provide faculty with access to next generation sequencing in order to generate preliminary results for future grant submissions that will allow them to begin using or expand their work in human, plant and animal genomics.

Funds for the Texas A&M Genomics Seed Grant Program shall only be applied for next generation Illumina sequencing and bioinformatics services from the AgriLife Genomics and Bioinformatics Services; no additional funds shall be requested through this program. Proposals will be accepted from individual faculty members or teams of researchers. Each proposal should have one clearly identified principal investigator (PI). PIs may request up to \$30,000 in service credits, and it is expected most projects will be in the \$10,000-20,000 range. Great care must be taken to justify the scope of sequencing/bioinformatics requested in light of the program goal. PIs of funded seed projects will be expected to submit a yearly and final report, as well as take part in a multi-day symposium highlighting all the funded programs.

Who should apply?

- All faculty who are currently not using NGS technologies but want to see what this amazing technology is all about, or faculty of established programs who want to expand into new areas or applications. As a seed grant program, funds should not be requested to incrementally extend current research.
- Disciple-wide and Interdisciplinary teams – This RFP is an opportunity to generate that primary data needed to facilitate multidisciplinary collaborations.
- Past seed grant participation does not exclude you from applying for this RFP.

Who is Eligible to Submit a Proposal:

Principal Investigators: Faculty who hold appointments (including joint appointments) with TAMU, TAMHSC, or AgriLife may serve as a PI on any proposal. There should be one PI per proposal.

Co-PIs: Faculty holding appointments (including joint appointments) within the Texas A&M System are eligible to serve as Co-PIs on proposals.

Collaborators: Involvement of collaborators from other agencies and/or universities that enhance the competitiveness of a proposal is allowable.

Budget and Planning: Prior to submission, all applicants must meet with the AgriLife Director of Genomics and Bioinformatics, Dr. Charles Johnson (Charlie@ag.tamu.edu) to a) determine the technology and services that are available and how they can best be used to meet the research goals and b) obtain a quote for NGS and bioinformatics services. It is best to make arrangements with Dr. Johnson as soon as possible. The quote will serve as the project budget and must be submitted with each proposal. ***Proposals without service quotes will not be reviewed.***

Deadline to schedule a Planning meeting: **5:00 PM on December 2, 2013.** Requests for a planning meeting and service quote received after December 2 will not be eligible for this opportunity.

Deadline to Submit Proposal: Proposals are due no later than **5:00 PM on December 16, 2013.** Please submit a single combined document in PDF format to Texas A&M AgriLife Genomics and Bioinformatics Service office. ([Click to submit: TxGen@ag.tamu.edu](mailto:TxGen@ag.tamu.edu)).

Review Process: Proposals will be reviewed by an *ad hoc* advisory review panel made up of faculty from Texas A&M University, the Texas A&M Health Science Center and Texas A&M AgriLife Research.

Award Notice: Successful proposals will receive notification by January 31, 2014.

All projects will begin February 2, 2014 and end August 15, 2015. Service credits and funds will no longer be available after this time. At the end of the program all funded proposals will be evaluated. Based on the performance of the seed grant program in terms of new funding, papers, etc., and funds available at the time, this program may be renewed. Assuming the program is successful and funding is available, we expect the next seed grant RFP to open October 1, 2015.

**Texas A&M Genomics Seed Grant Program
FY2013-FY2015**

Proposal Section not to exceed three (3) pages

Title:

Principal Investigator:

Co-Principal Investigator(s):

Collaborator(s):

Amount Requested: \$_____ *Attach quote*

Proposal Section (3 pages)

Project Objectives:

Plan of Work:

All proposals shall include a basic bioinformatics analysis plan. For those projects not requesting funds for bioinformatics support, the proposal must show adequate bioinformatics expertise (PI, CoPI or collaborator).

Research Impact:

PI must describe how these preliminary data will lead to major grant proposals, identifying target federal agency, program, and/or private sector sources of additional funding to be sought. General statements of intent to apply for major grants will disqualify applicants for a seed grant.

Selected References (1 pages)

Project Timeline

Describe role of each team member (1 page)

Appendix: 2-page biosketch for each PI, CoPI(s) and collaborators