

Alliance for NanoHealth
FY2008: NASA/DOE



ALLIANCE *for* NANOHEALTH



Research Training Program Request for Proposals

Title of Award: Research Training Program

Program Title: Alliance for NanoHealth (ANH) research training program for the development of future generations of interdisciplinary scientists in “nanotechnology” and its applications to address medical tribulations.

Contact Information: For questions related to the program announcement, proposal format or required documentation, contact:

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Chief Operating Officer, ANH

Phone Number: 713-500- 2466

E-mail: Jason.Sakamoto@uth.tmc.edu

Website to access application package and submit proposals: <http://www.nanohealthalliance.org>.
This website contains all the information and forms needed to apply.

PURPOSE OF REQUEST FOR APPLICATION

The ANH is issuing a Request for Proposals (RFP) to support trainees who are a part of collaborative research projects in recognition of the need for, and advantages of, continuing investment in training for the advancement in biomedical nanotechnology research.

Program objectives

The objective of the ANH research training program is to advance the ANH mission by encouraging, supporting and sustaining high caliber training of a new generation of students in nanotechnology with special attention to its applications in medicine. The ANH challenges graduate students and postdoctoral fellows to work with appropriate mentors in designing novel research projects that will foster new directions and bring new investigators to the field of nanotechnology research. The ANH focuses its funding on innovative proposals, particularly those involving multidisciplinary and multi-institutional collaborations with the participating ANH member institutions (listed below) that have the potential to make a significant impact on the unsolved medical problems by way of nanotechnology. The ANH encourages trainees and mentors to identify projects that demonstrate firm scientific judgment as well as rationale that coincide with the objectives of ANH and the contracting agencies, viz. NASA and DOE. In this context, the objective is to fund training focused on a balanced portfolio of scientifically commendable research in nanotechnology. The ANH seeks proposals for trainees from all

disciplines within the basic and clinical research utilizing nano-based techniques and applications.

OPPORTUNITIES

The ANH Research Training Program is intended to offer a well-rounded, integrated experience in nanotechnology research to develop future generations of scientists.

a) Post Doctoral Fellows

The ANH postdoctoral training program seeks applicants and mentors interested in developing nanomedicine-focused research projects that are aligned with the scientific goals of the ANH and NASA/DOE. The fellowships will provide supplemental support during the training period for the postdoctoral fellows to mature into sophisticated investigators and potential future faculty members. The research should be of sufficient depth to produce publications and prepare the scientists for future federal funding opportunities (e.g. NIH, NSF, among others).

The ANH postdoctoral training program will implement this strategy by funding 2 types of award:

- Supplemental support for four new postdoctoral fellows (less than 3 years of post-doctoral experience at the time of submitting applications)
- Supplemental support for two senior postdoctoral fellows to facilitate their transition to junior faculty status (less than 5 years of postdoctoral experience at the time of submitting applications)

Selection Criteria

Applicants will be evaluated on previous research experience including patents and publications, quality of training environment, mentor support, letters of recommendation, and the strength and relevance of a 3-page research proposal. Senior Postdoctoral candidates will also be evaluated on the potential for transition to junior faculty status.

Applications will be evaluated by a sub-committee of the ANH Steering Committee with invited experts. A short interview will be required as part of the review process.

The sub-committee may decide at their discretion to contact the applicant for further information.

Supplemental Award Details

The application must be prepared and submitted by the candidate in close conjunction with the ANH mentor(s). Due to the nature of the support being offered, the balance of funding will be provided by the mentor's department, and any issues related to this required matching must be resolved in advance.

The ANH will offer up to \$20,000/year for the new postdoctoral fellows and up to \$30,000/year for the more senior postdoctoral fellows. This support aims to cover approximately 50% of the

cost of salary over a maximum of a two-year period. Fringe benefits may be added at the appropriate institutional rate of the host institution. Indirect costs may be claimed at a rate of up to 40% of total direct costs.

Requirements

- Must provide a half-page overview outlining the support of an ANH faculty member to provide supervision, salary support, and mentorship which is verified in the mentor's letter of recommendation.
- Three letters of recommendation, including one from the primary mentor (and secondary mentor if applicable) which details supervision, support and mentorship (less than two pages each).
- A three-page, research proposal complete with specific aims and milestones for a 2-year nanomedicine focused project.
- Half-page summary regarding the relevance of the work to DOE/NASA goals (see below).
- A two-page Biosketch for the candidate and a four-page Biosketch for the mentor(s). This Biosketch should follow the NIH PHS 398 format and include: Education and Training, Positions and Honors, Selected Peer-Reviewed Publications and Research Support (ongoing and completed). eRA Commons login not required. Sample available at:
<http://grants.nih.gov/grants/funding/phs398/phs398.html>

Dual mentorship and interdisciplinary, collaborative proposals are encouraged.

Performance Assessment

ANH-sponsored postdoctoral fellows will be required to submit an annual progress report to the ANH Training Program Steering Committee. The trainees, along with their mentors, will meet on a regular basis to evaluate progress and scientific direction of research projects. Renewal for the subsequent year will be based upon the annual progress review evaluation of research progress. Both mentors are required to attend this review meeting. In addition to annual progress reports, all funded researchers must participate in at least one ANH Seminar featuring recipients of funding from this program. Trainees will also be required to participate in all ANH scientific displays such as ANH sponsored workshops, conferences and poster sessions. In addition, the annual progress review provides the opportunity for exploration of career opportunities and pathways for the fellows. Feedback from students and fellows regarding this ANH program will be actively solicited during the review process.

Annual Review:

- Summarize achievements, publications and events attended (1 page)
- Mentor's review comments (1/2 page or more)
- Summarize future research plan (1 page)
- Present a short research summary (with Powerpoint)

Appropriate acknowledgements must be given to the Alliance for NanoHealth support in relevant grants, papers, and publications

b) Graduate Students

The ANH Graduate Student Training Program will be open to the graduate students who have completed at least 2 semesters of study or equivalent research and/or industry experience. Graduate students are encouraged to work with their mentor to identify an interdisciplinary project that incorporates a secondary mentor. Both mentors must be involved in nanotechnology-related basic or clinical research. The major areas of focus include, but are not limited to:

- Biological sciences (including both basic and clinical sciences)
- Chemical sciences
- Nanotechnology
- Engineering, physical, and mathematical sciences
- Computational Sciences.

Graduate student applicants must have a primary mentor with an expertise in nanotechnology. An additional mentor should be identified, preferably from another institution or minimally from a different department, so that the student will be guided in basic and clinical sciences between the Primary Mentor and the Secondary Mentor. The focus of research must be innovative and should address an issue relevant to the challenges in nanomedicine with a potential for making an impact on unsolved problems.

Selection Criteria

The students will be selected based on their previous academic performance, quality of the proposed research, mentor experience and support, letters of recommendation and summary of research intent.

Applications will be evaluated by a sub-committee of the ANH Steering Committee with invited experts. A short interview will be required at a final review stage.

The sub-committee may decide at their discretion to contact the applicant for further information.

Award Details

The application must be prepared and submitted by the candidate in close conjunction with the ANH mentors. Due to the nature of the support being offered, the balance of funding will be

provide supervision and interdisciplinary oversight for the student's research and training, as verified in the mentor's letter of recommendation.

- Provide three letters of recommendation, including one from the primary mentor (and secondary mentor if applicable) which details supervision, support and mentorship (less than two pages each).
- Provide a 3-page research proposal that is interdisciplinary complete with specific aims and milestones for a 2-year nanomedicine focused project.
- Provide a half-page summary on the relevance of the work to DOE/NASA goals (see below). A two-page Biosketch for the candidate and a four-page Biosketch for the mentor(s). This Biosketch should follow the NIH PHS 398 format and include: Education and Training, Positions and Honors, Selected Peer-Reviewed Publications and Research Support (ongoing and completed). eRA Commons login not required. Sample available at:
<http://grants.nih.gov/grants/funding/phs398/phs398.html>

Performance Assessment

ANH-sponsored graduate fellows will be required to submit an annual progress report to the ANH Training Program Steering Committee. The trainees, along with their mentors, will meet on a regular basis to evaluate progress and scientific direction of research projects. Renewal for the subsequent year will be based upon this evaluation, both in terms of the coursework and research progress. Both mentors are required to attend this review meeting. In addition to annual progress reports, all funded researchers must participate in at least one ANH Seminar featuring recipients of funding from this program. Trainees will also be required to participate in all ANH scientific displays such as ANH sponsored workshops, conferences and poster sessions. In addition, the annual progress review provides the opportunity for exploration of career opportunities and pathways for the fellows. Feedback from students and fellows regarding this ANH program will be actively solicited during the review process.

Annual Review:

- Summarize achievements, publications and events attended (1 page)
- Mentor's review comments (1/2 page or more)
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Appropriate acknowledgements must be given to the Alliance for NanoHealth support in relevant grants, papers, and publications

ANH Goals

The ANH must be responsive to the scientific and technical areas of interest for NASA and DOE in allocating the fellowship awards. The ANH will also examine how well the proposals correlate with the ANH mission to facilitate the translation of nanotechnology from the laboratory bench to clinical practice through commercialization.

NASA Specific Goals

NASA funded research is evaluated on its relevance to NASA's mission; intrinsic scientific, engineering, educational merit of the proposed effort; cost realism and reasonableness. In

addition to being of the highest intrinsic science and technical merit, NASA also solicits research proposals to foster aggressive programs aimed at attracting and retaining students in science, technology, engineering and mathematics education (STEM) disciplines, while improving the public's understanding and appreciation of STEM disciplines. Research opportunities in Nanotechnology to seek answers for the tribulations in medicine as well as space medicine concur with NASA's mission to advance and communicate scientific knowledge, invest in America's future and inspire the next generation of explorers.

NASA Education and Research Goals:

<http://www.nasa.gov/offices/education/about/index.html>

DOE Specific Goals

The DOE mission contributes to the legacy of the U.S. as a nation of innovation by supporting research that leads to major scientific discoveries and innovative challenges. Through the STEM program, DOE aims to prepare a diverse work force of scientists with the intent of mentoring and supporting the next generation of scientists and to continue promoting scientific and technological innovations in support of the DOE mission. The DOE Office of science plays a critical role in advancing basic research in the United States and in bringing new technologies to the marketplace. It also plays a leading role in preparing a diverse workforce of scientists, engineers and educators to keep America at the forefront of innovation and provide the laboratory infrastructure required for the U.S. scientific primacy. Research proposals with a nanotechnology approach in basic and clinical sciences will support the DOE mission of ensuring U.S. world leadership across a broad range of innovative scientific disciplines.

DOE Education and Research goals:

<http://www.energy.gov/sciencetech/index.htm>

For more details on the listed programs and application formalities, please visit the ANH website at <http://www.nanohealthalliance.org>

PARTICIPATING ANH INSTITUTIONS:

Baylor College of Medicine
The Methodist Hospital Research Institute
Rice University
Texas A&M Health Science Center
University of Houston
University of Texas Health Science Center at Houston
University of Texas M. D. Anderson Cancer Center
University of Texas Medical Branch at Galveston

KEY DATES:

RFP Release Date: August 1st 2009

Application Receipt Deadline: September 15th 2009 by 5 pm

Review feedback: Mid-late October 2009
(Interviews will be held in early October 2009)
Start date: 1st November 2009

It may be possible to back date the start of the funding to 1st September 2009, if requested and with the agreement of the host institution.

FUNDS AVAILABLE:

The NASA and DOE sanctioned appropriations for FY2008 totaling approximately \$1.5 M. This RFP is a one-time solicitation for a maximum of 2 year period and the awards will be issued on or before 1st November 2009.

WHERE TO SEND INQUIRIES:

We encourage inquiries concerning this RFP and welcome the opportunity to answer questions from potential applicants. Kindly direct your questions to Dr. Jason Sakamoto or Damian Walsh (Contact information below).

SUBMITTING AN APPLICATION:

Signature by an appropriate institutional representative will be required ONLY IF the application is selected to be funded by the ANH review committee—at which time, applicants will be required to prepare their budgets and detailed proposal according to their institutional and NASA/DOE guidelines.

Please submit applications in PDF format by e-mail to:

Jason Sakamoto, Ph.D.
Chief Operating Officer, ANH
Tel: (713) 500-2466
E-mail: Jason.Sakamoto@uth.tmc.edu

Or

Damian Walsh
Program Manager ANH
Tel: (713) 500-3768
E-mail: Damian.Walsh@uth.tmc.edu

SPECIFIC INSTRUCTIONS FOR ALL APPLICATIONS:

Please use at least 0.5” margins and 11-point font. The proposal should be assembled in the following order and be within the page limits stated in RFA summary. Applications that do not conform to these instructions will not be reviewed.

1. Title Page & PI Contact Information (Not included in Page Limit)
2. Research Description
3. Letters of Recommendation
4. Statement of relevance to NASA/DOE objectives
5. Biosketches of the Candidate and Mentor(s)

