



**The Temple Health & Bioscience Economic Development District
is soliciting bids for:**

NanoString nCounter Research Project

DUE DATE: 3:00 PM, Wednesday, August 10, 2016

Submit proposal via email to: jackh@templebioscience.com

**Submit written questions to: Jack D. Hart
Executive Director
Temple Health & Bioscience Economic
Development District
jackh@templebioscience.com**

Questions may be submitted via email through 3:00 PM, Wednesday, August 3, 2016. No verbal questions will be accepted. Questions of a substantive nature will be answered via email and distributed to all bidding parties.

June 22, 2016

Request for Proposal

Project title:

NanoString nCounter Research Project

Requesting Organization:

**The Temple Health & Bioscience Economic Development District
1802 S. 1st Street
Temple, Texas 76504**

June 22, 2016

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I. Introduction and Background

This Request for Proposal (RFP) for *NanoString nCounter Research Project* is a solicitation from the Temple Health & Bioscience Economic Development District (THBD) seeking research programs that will feature the use of the NanoString nCounter NCT-SYST-200 Analysis System located in the Common Laboratory of the THBD Office and Laboratory Facility at 1802 S. 1st Street in Temple, Texas. This RFP is primarily directed to the THBD Temple-based entity partners as identified below, but qualified bidders from other recognized research institutions may also submit proposals. The THBD NanoString nCounter System may be used on a cost center basis to advance research programs. Under this solicitation, THBD will award up to three (3) separate grants that total \$25,000 each.

The Temple Health and Bioscience Economic Development District was created as a result of legislation passed by the State of Texas in 2003 and approved by the voters of Temple in the same year to establish the District. In 2009, the District asked for, and was granted by the citizens of Temple, authority to assess ad valorem taxes. In return, the District proposed to design and build a Bioscience Office and Laboratory Facility where early-stage bioscience companies would mature products for market distribution with an ultimate goal of the companies moving from the Facility and into their own, or shared space in Temple, Texas as they evolve into the manufacturing phase of their product.

The vision for such a facility was solidified with the signing of a Memorandum of Understanding (MOU) in 2009 among Temple-based entity partners to include Baylor Scott & White Health, the Texas A&M Health Science Center College of Medicine, Central Texas Veterans Healthcare System of Temple, Temple College, USDA Agricultural Research Service Grasslands Soil and Water Research Laboratory, and the City of Temple.

In May of 2015, and as a result of the momentum created through the MOU, the District moved into the newly completed Temple Health and Bioscience District Office and Laboratory Facility located at 1802 S. 1st Street. The 5,000 sq ft facility provides not only workspace, but opportunities for start-up professionals to perform prototyping and development as well as collaborate with fellow tenant companies. Occupants may be companies focused on medical devices, pharmaceuticals, biologics, medical software, or other biotech/life sciences products.

Featured in the new facility is the 530 sq ft Common Laboratory appointed with specialized equipment for product development. Included in the Common Lab and available for use on a cost-center basis, are the following:

- NanoString nCounter NCT-SYST-200 Analysis System
- Stratasys Objet350 Connex2 3-D Printer
- Leica LMD7000 Laser Microdissection Microscope
- Instron Electropulse E10000 Material Testing System

This RFP is addressed to researchers who stand to gain significant impetus to their research endeavors through the use of the NanoString nCounter Analysis System. The awarded funds are to be used primarily for the purchase of pre-made or custom panel kits and payment of THBD NanoString nCounter Analysis System cost center fees.

II. NanoString nCounter System and Cost Center Description

The NanoString nCounter Analysis System is shown in Figure II.1. It is a unique, highly-automated system for quantifying large numbers of targets in complex samples, either without, or with minimal, amplification. Fluorescent reporter probe sets are designed to target up to 800 different nucleic acid targets. There are pre-built codesets available as well as custom codesets. The nCounter consists of a Prep Station and a Digital Analyzer. The Prep Station is the fluid handling robot of the nCounter System and processes samples after hybridization to prepare them for data collection on the Digital Analyzer.

The Digital Analyzer is a high-speed, four-color fluorescence imager that collects data by detecting the reporters immobilized in the sample cartridge. Images are processed internally and the data output files include the target identifier and count number along with a comprehensive tally of internal controls that produces an accurate, quantitative assay.

The NanoString protocol includes the following steps:

- **Hybridization:** NanoString's Technology employs two approximately 50 base probes per mRNA that hybridize in solution. The reporter probe carries the signal, while the capture probe allows the complex to be immobilized for data collection.
- **Purification and Immobilization:** After hybridization, the excess probes are removed and the probe/target complexes are aligned and immobilized in the nCounter Cartridge.
- **Data Collection:** Sample Cartridges are placed in the Digital Analyzer instrument for data collection. Color codes on the surface of the cartridge are counted and tabulated for each target molecule.

Figure II.1 NanoString nCounter Analysis System



The NanoString nCounter Analysis System may be used on a cost center basis. The cost structure is:

\$50 per hour (including use of Thermo Cycler)

III. Statement of Objective and Deliverables

The objective of the Temple Health & Bioscience Economic Development District NanoString nCounter Analysis System Research Project is for the awardee to utilize the awarded grant funds to accelerate the progress of their research program through experiments conducted using the NanoString nCounter Analysis System located in the THBD Common Laboratory. The awardee will use the awarded grant funds for:

- Purchase of pre-made or custom panel kits
- Payment to THBD for NanoString nCounter Analysis System cost center services
- Other directly-related costs associated with the use of the NanoString nCounter Analysis System

The awardee will apprise THBD personnel of progress and key discoveries through quarterly presentations, and a final report. The final report will present overall progress made using THBD grant funds and specifically highlight the benefits gained from using the NanoString nCounter Analysis System. The final report is due no later than one (1) month after project completion.

In summary, deliverables are:

1. Four (4) quarterly research progress presentations
2. A final report due no later than one (1) month after project completion

IV. Project Duration, Scope, and Proposal Requirements

IV.1 Project Duration and Scope

The project duration is not to exceed twelve (12) months past award date. Grant amount is \$25,000 to be paid in total upon grant award. Up to a total of three awards may be made if the award assessment team determines that multiple proposals meet, or exceed, award criteria. A Principal Investigator may submit more than one proposal.

IV.2 Proposal Requirements

Each proposal must contain, at a minimum, the following:

1. Name and affiliation of Principal Investigator
2. Names and affiliations of supporting investigators
3. Description of research program
4. Schedule of research program with clearly stated objectives and milestones
5. Current status of research program and relevant achievements to-date
6. Current funding source(s) and funding level
7. Potential sources for additional funding
8. How you plan to use the NanoString nCounter Analysis System and how its use will support and accelerate your research program

In addition, a curriculum vitae summary of each participating researcher highlighting applicable experience must be included in the proposal document.

Complete proposal packages must be submitted via email no later than 3:00pm, Wednesday, August 10, 2016 to: jackh@templebioscience.com.

V. Bidder Qualifications

To qualify for proposal submission, bidders must be full-time researchers at a recognized research institution. Award preference will be provided to Temple-based entity partner research organizations as identified in the Memorandum of Understanding previously described. The entity partner research organizations are:

1. Baylor Scott & White Health
2. Texas A&M Health Science Center College of Medicine
3. Central Texas Veterans Healthcare System of Temple
4. USDA Agricultural Research Service Grasslands Soil and Water Research Laboratory

In addition, bidders must be in need of use of the NanoString nCounter Analysis System to accelerate the progress of their research program. It also will be of benefit if the bidder has prior experience using a NanoString nCounter Analysis System, or similar system.

VI. Award Criteria and Date

The duration for the Temple Health & Bioscience Economic Development District NanoString nCounter Research Project should not exceed twelve (12) months beyond the award date. Award criteria will be measured as follows:

<u>Criteria</u>	<u>Value</u>
1. Relevant qualifications of Principal Investigator	25%
2. Relevant qualifications of entire research team	25%
3. Research program – Overall condition including achievements and funding status	25%
4. Statement on use of the NanoString nCounter Analysis System and potential value the system can provide to Bidders research program	25%

Each proposal will be assessed by an assessment team whose members will be designated by THBD operations personnel.

Award, or awards, will be announced on Thursday, August 25, 2016.

VII. Submission Instructions

Proposal documentation is to be delivered via email to:
jackh@templebioscience.com

Deadline for receipt of proposals is 3:00pm, CDT Wednesday, August 10, 2016.

Any proposal received after this date and time will not be considered for award.