Facsimile: (240)-276–5504 Email: *greenejaime@mail.nih.gov.*

SUPPLEMENTARY INFORMATION:

Intellectual Property

EP Patent 1999277 (Application No. 07753436.0) filed 19 March 2007, titled ''Apparatus for biosensor microarrays based on carbon nanotube transistors having biological probe materials, method for its production and method of electronically detecting a biological target material'', validated in FR, DE, IE, and GB, HHS Reference No.: E–056–2007/0–EP–04;

Australia Patent 2007227415 (Application No. 2007227415) filed 10/16/08, titled ''Apparatus for microarray binding sensors having biological probe materials using carbon nanotube transistors'', HHS Reference No.: E–056–2007/0–AU–05;

Canada Patent 2646465 (Application No. 2646465) filed 03/19/07, titled ''Apparatus for microarray binding sensors having biological probe materials using carbon nanotube transistors'', HHS Reference No.: E–056–2007/0–CA–06;

Japan Patent 5048752 (Application No. 2009–501490) filed 03/19/07, titled ''Apparatus for microarray binding sensors having biological probe materials using carbon nanotube transistors'', HHS Reference No.: E–056–2007/0–JP–07;

EP Patent 2570490 (Application No. 12160369.0) filed 03/19/07, titled ''Apparatus for microarray binding sensors having biological probe materials using carbon nanotube transistors'', validated in FR, DE, and GB. HHS Reference No.: E–056–2007/0–EP–08;

U.S. Patent 8,017,938 (Application No. 11/723,369), filed 19 March 2007, titled ''Apparatus for Microarray Binding Sensors Having Biological Probe Materials Using Carbon Nanotube Transistors'', HHS Ref. No.: E–056–2007/0–US–03; and

PCT Application No. PCT/US2007/06809, filed 19 March 2007, now abandoned, titled ''Apparatus for Microarray Binding Sensors Having Biological Probe Materials Using Carbon Nanotube Transistors'', HHS Ref. No.: E–056–2007/0–PCT–02.

U.S. Provisional Patent Application No. 60/743,524, filed 17 March 2006, now abandoned, titled ''Apparatus for Microarray DNA Binding Sensors Using Carbon Nanotube Transistors'', HHS Ref. No.: E–056–2007/0–US–01.

The patent rights in these inventions have been assigned and/or exclusively licensed to the government of the United States of America.

The prospective exclusive license territory may be worldwide and the field of use may be limited to: ''The development of an FDA-approved or cleared *in vitro* diagnostic for the detection of hematological malignancies, wherein nucleic acids encoding one or more of the following genes are detected: (1) BCR–ABL, (2) FLT3, (3) Btk, (4) Alk, (5) Bcl–2, (6) Akt, and (7) PI3K.''

This technology discloses a microarray apparatus that uses carbon nanotubes transistors and electronic circuitry to quantitatively measure changes in gene expression levels. Typically, microarrays are microscope glass slides spotted with thousands of different genes. The array does not have built-in reader, and the detection is performed using a fluorescence scanner after hybridization with fluorescent-tagged target DNA. For simple nucleic acid detection, current methods rely upon various combinations of enzymatic amplification of nucleic acids and fluorescent labeling of targets, which entail enzymatic manipulation of the nucleic acid being tested and chemical labeling, respectively. These methods are both time consuming and afford limited sensitivity. In cases where microarray technology is used as a tool for monitoring gene expression patterns and profiling of micro RNA (miRNA) in normal and cancerous tissue, quantification of changes has typically been optically-based. While this technique is highly sensitive, use of optical methods impedes progress in both system miniaturization and in direct interfacing with data collection electronics.

To overcome the limitation of current microarray technologies, the inventors have developed a highly sensitive microarray apparatus that uses carbon nanotube transistors for the electronic detection of biological probe-target binding. The present invention provides an apparatus for biological target material detection which uses an array of carbon nanotube transistors, with each being operated as a field effect transistor. A single carbon nanotube transistor is associated with a distinct biological probe material. The current versus voltage characteristics or transconductance between the source and drain electrodes is measured before and after a binding event between the biological probe and target materials. By using a mathematical relationship, the exact amount of target binding can be extracted. Importantly, the present apparatus offers a significant advantage in simplicity of protocol as the method used therewith does not require chemical or enzymatic manipulation of the target being detected.

This notice is made in accordance with 35 U.S.C. 209 and 37 CFR part 404. The prospective exclusive license will be royalty bearing, and the prospective exclusive license may be granted unless within fifteen (15) days from the date of this published notice, the National Cancer Institute receives written evidence and argument that establishes that the grant of the license would not be consistent with the requirements of 35 U.S.C. 209 and 37 CFR part 404.

Complete applications for a license in the prospective field of use that are filed in response to this notice will be treated as objections to the grant of the contemplated Exclusive Commercialization Patent License Agreement. Comments and objections submitted to this notice will not be made available for public inspection and, to the extent permitted by law, will not be released under the *Freedom of Information Act,* 5 U.S.C. 552.

Dated: August 25, 2017.

Richard U. Rodriguez,

Associate Director, Technology Transfer Center, National Cancer Institute.

[FR Doc. 2017–18668 Filed 9–1–17; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Proposed Collection; 60-Day Comment Request; NCI Cancer Genetics Services Directory Web-Based Application and Update Mailer (National Cancer Institute)

AGENCY: National Institutes of Health, HHS.

ACTION: Notice.

SUMMARY: In compliance with the requirement of the Paperwork Reduction Act of 1995 to provide opportunity for public comment on proposed data collection projects, the National Cancer Institute (NCI) will publish periodic summaries of propose projects to be submitted to the Office of Management and Budget (OMB) for review and approval.

DATES: Comments regarding this information collection are best assured of having their full effect if received within 60 days of the date of this publication.

FOR FURTHER INFORMATION CONTACT: To obtain a copy of the data collection plans and instruments, submit comments in writing, or request more information on the proposed project, contact: Margaret Beckwith, Office of Cancer Content, Office of Communications and Public Liaison (OCPL), 9609 Medical Center Drive, Rockville, MD 20892 or call non-toll-free number 240–276–6600 or email your request, including your address to: *nciocpl@mail.nih.gov.* Formal requests for additional plans and instruments must be requested in writing.

SUPPLEMENTARY INFORMATION: Section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 requires: Written

comments and/or suggestions from the public and affected agencies are invited to address one or more of the following points: (1) Whether the proposed collection of information is necessary for the proper performance of the function of the agency, including whether the information will have practical utility; (2) The accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) Ways to enhance the quality, utility, and clarity of the information to be collected; and (4) Ways to minimize the burden of the collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Proposed Collection Title: NCI Cancer Genetics Services Directory Web-Based Application and Update Mailer, 0925–0639, Extension, National Cancer Institute (NCI), National Institutes of Health (NIH).

Need and Use of Information Collection: The Office of Communications and Public Liaison has created the NCI Cancer Genetics Services Directory on NCI's Web site *Cancer.gov.* This directory is a searchable collection of information about professionals who provide services related to cancer genetics. These services include cancer risk assessment, genetic counseling, and genetic susceptibility testing. The professionals have applied to be in the directory using an online application form and have met basic criteria outlined on the form.

There are currently 552 genetics professionals listed in the directory. Approximately 30–60 new professionals are added to the directory each year. The applicants are nurses, physicians, genetic counselors, and other professionals who provide services related to cancer genetics. The information collected on the application form includes name, professional qualifications, practice locations, and the area of specialization. The information is updated annually using a Web-based update mailer that mirrors the application form.

The NCI Cancer Genetics Services Directory is a unique resource for cancer patients and their families who are looking for information about their family risk of cancer and genetic counseling. Collecting applicant information and verifying it annually by using the NCI Cancer Genetics Services Directory Web-based Application Form and Update Mailer is important for providing this information to the public and for keeping it current.

OMB approval is requested for 3 year. There are no costs to respondents other than their time. The total estimated annualized burden hours are 180.

ESTIMATED ANNUALIZED BURDEN HOURS

Form name	Type of respondent	Number of respondents	Number of responses per respondent	Average burden per response (in hours)	Total annual burden Hours
Web-based Application Form	Genetics Professional	60	1	30/60	30
Web-based Update Mailer	Genetics Professional	600	1	15/60	150
Totals		660	660		180

Dated: August 21, 2017.

Karla Bailey,

Project Clearance Liaison, National Cancer Institute, National Institutes of Health.

[FR Doc. 2017–18667 Filed 9–1–17; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government-Owned Inventions; Availability for Licensing

AGENCY: National Institutes of Health, HHS.

ACTION: Notice.

SUMMARY: Availability for licensing U.S. Government owned intellectual property for commercial development.

FOR FURTHER INFORMATION CONTACT: Licensing information and copies of the patent applications listed below may be obtained by emailing the indicated licensing contact at the National Heart, Lung, and Blood, Office of Technology Transfer and Development Office of Technology Transfer, 31 Center Drive Room 4A29, MSC2479, Bethesda, MD 20892–2479; telephone: 301–402–5579. A signed Confidential Disclosure Agreement may be required to receive copies of the patent applications.

SUPPLEMENTARY INFORMATION: The inventions listed below are owned by an agency of the U.S. Government and are available for licensing in the U.S. in accordance with 35 U.S.C. 209 and 37 CFR part 404 to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing. Technology description follows.

Hybrid Computed Tomography Scanning System

Description of Technology: The invention relates to a combination hybrid computed tomography (CT) system that is particularly suited for elucidating stages in pulmonary diseases, notably cystic fibrosis and lung cancer. Improved visualization of lung parenchyma and the margins of lung cysts and lung nodules (non-invasive ''virtual biopsy'') may provide sufficient detail to distinguish the types of cystic lesions and lung nodules such that the typical lung tissue pathologic biopsy would not be needed to make a diagnosis. The system includes placing one or more x-ray detector panels near the patient's body initially outside the view of a CT scanner and then moved into place for a secondary scan. An initial low dose scan, CT scan or X-ray, can be performed and if a high-resolution CT scan is then necessary a flat panel detector is positioned near the area of interest. It is preferable that the flat panel detector be transparent to high-energy x-ray photons. The plurality of acquired images are then reconstructed into a low and high-resolution image.

Potential Commercial Applications:

- Non-invasive lung biopsies

Development Stage:

- Early stage, no prototype.

Inventors: Han Wen (NHLBI)

Intellectual Property: HHS Reference No. E–175–2017/0–US–01

- U.S. Provisional Patent Application 62/546,639 filed August 17, 2017.