■ NHLBI CENTERS FOR CARDIOVASCULAR OUTCOMES RESEARCH (U01): RFA-HL-10-008

Components of Participating Organizations
National Heart, Lung, and Blood Institute

Application Receipt Date(s): January 21, 2010
Earliest Anticipated Start Date: October 1, 2010

The National Heart, Lung and Blood Institute (NHLBI) of the National Institutes of Health (NIH) solicits four-year cooperative agreement (U01) grant applications from institutions/organizations to establish three Centers for Cardiovascular Outcomes Research (CCOR) to complement and collaborate with other existing centers in cardiovascular outcomes research. This Funding Opportunity Announcement (FOA) runs parallel with a separate FOA that solicits the applications for a Research Coordinating Unit (See RFA-HL-10-018). This FOA will fund centers to conduct cardiovascular outcomes and comparative effectiveness research - natural experiments, quasi-experimental research, and practice-based trials - that focuses on patient and clinician-relevant outcomes of healthcare and the determinants of these outcomes. The goal is to directly inform public policy and/or clinical practice. Each CCOR will conduct 1–2 research projects in which multidisciplinary teams such as clinician researchers, health services researchers, biostatisticians, and/or health economists undertake novel research focusing on measuring, evaluating, and improving outcomes of cardiovascular care delivery across the care continuum. Outcomes relevant for this FOA include cardiovascular mortality, clinical events, cost-effectiveness, or quality of life. This FOA supports both methodological and applied research focused on patient outcomes. Aims could include assessing, monitoring, and enhancing the quality of cardiovascular care at patient, clinician, and system levels; translating research findings into practical care delivery strategies for clinicians and decision-makers; improving the effectiveness and efficiency of delivering evidence-based cardiovascular care; enhancing the state of the science of outcomes measurement; and developing innovative study designs and statistical methods for quasi-experimental cardiovascular research on cardiovascular care. This FOA will utilize the Cooperative Agreement grant mechanism (U01).

NHLBI intends to commit up to $4.1 million in total costs in FY2010 to fund up to three research center applications in response to this FOA. Awards issued under this FOA are contingent upon the availability of funds and the submission of a sufficient number of meritorious applications. The total project period for an application submitted in response to this funding opportunity may not exceed four years. The maximum award for the research centers will be up to $3,700,000 in direct costs across four years, with a limit of $920,000 in direct costs for any given year per Center.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; Hispanic-serving institutions; Historically Black Colleges and Universities; Tribally Controlled Colleges and Universities; Alaska Native- and Native Hawaiian- serving institutions; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; Indian/Native American tribal governments (Federally recognized); Indian/Native American tribally designated organizations; U.S. territories or possessions; Indian/Native American tribal governments (other than Federally recognized); regional organizations; eligible agencies of the Federal Government, and faith-based or community-based organizations. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs), may be designated on the application. Applicants may submit more than one application, provided they are scientifically distinct. Resubmission applications are not permitted in response to this FOA. Renewal applications are not permitted in response to this FOA. This FOA uses non-standard due dates.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-HL-10-008.html.

■ NHLBI CARDIOVASCULAR OUTCOMES RESEARCH COORDINATING UNIT (U01): RFA-HL-10-018

Components of Participating Organizations
National Heart, Lung, and Blood Institute

Application Receipt Date(s): January 21, 2010
Earliest Anticipated Start Date: October 1, 2010

The National Heart, Lung and Blood Institute (NHLBI) of the National Institutes of Health (NIH) solicits four-year cooperative agreement (U01) grant applications from institutions/organizations to serve as the Research Coordinating Unit (RCU) for the Centers for Cardiovascular Outcomes Research (CCOR). This Funding Opportunity Announcement (FOA) runs parallel with a separate FOA that solicits the applications for the three Centers (See RFA-HL-10-008). The Centers will conduct cardiovascular outcomes and comparative effectiveness research that focuses on patient and clinician-relevant outcomes of healthcare and the determinants of these outcomes. Each CCOR will conduct 1–2 research projects in which multidisciplinary teams such as clinician researchers, health services researchers, biostatisticians, and/or health economists undertake novel research focusing on measuring, evaluating, and improving outcomes of cardiovascular care delivery across the care continuum. Outcomes relevant for research proposed by the Centers include cardiovascular mortality, clinical events, cost-effectiveness, or quality of life. The Centers can undertake methodological and/or applied research focused on patient outcomes. Among other tasks, the RCU solicited by this FOA (RFA HL-10-018) will facilitate collaboration and coordination of research activities, communication between and among Centers and the NHLBI, and data sharing and collaborative manuscripts. In addition the RCU will plan, arrange, and support meetings of the Steering Committee and its subcommittees, the investigators and trainees, and the OSMB or DSMB.

This FOA will utilize the Cooperative Agreement grant mechanism (U01). NHLBI intends to commit up to $800,000 in total costs in FY 2010 to fund one Research Coordinating Unit (RCU) application in response to this funding opportunity announcement. Awards issued under this FOA are contingent upon the availability of funds and the submission of a sufficient number of meritorious applications. The total project period for an application submitted in response to this

funding opportunity may not exceed four years. The maximum award for the RCU will be approximately $2 million in direct costs across four years and may not exceed $500,000 in direct costs in any given year.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; Hispanic-serving institutions; Historically Black Colleges and Universities; Tribally Controlled Colleges and Universities; Alaska Native- and Native Hawaiian- serving institutions; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; Indian/Native American tribal governments (Federally recognized); Indian/Native American tribally designated organizations; U.S. territories or possessions; Indian/Native American tribal governments (other than Federally recognized); regional organizations; eligible agencies of the Federal Government, and faith-based or community-based organizations. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs) may be designated on the application. Applicants may submit more than one application, provided they are scientifically distinct. Resubmission applications are not permitted in response to this FOA. Renewal applications are not permitted in response to this FOA. This FOA uses non-standard due dates.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-HL-10-018.html.

■ CELLULAR AND MOLECULAR MECHANISMS OF ARTERIAL STIFFENING AND ITS RELATIONSHIP TO DEVELOPMENT OF HYPERTENSION (R01): RFA-HL-10-027

Components of Participating Organizations
National Heart, Lung, and Blood Institute

Application Receipt Date(s): January 21, 2010
Earliest Anticipated Start Date(s): September 2010

The National Heart, Lung, and Blood Institute (NHLBI) invites Research Project Grant applications that propose basic physiological, cellular and molecular investigations to elucidate the mechanisms that lead to conduit artery stiffening in the context of hypertension and explore the temporal relationship between arterial stiffening and the development of hypertension in animal models. This FOA will utilize the R01 grant mechanism. Include a statement about the total amount to be awarded and the anticipated number of awards. The NHLBI intends to commit approximately $4 million in total costs in FY2010, and up to $16 million over four years, to fund up to 10 grants under this FOA. Awards issued under this FOA are contingent upon availability of funds and the submission of a sufficient number of meritorious applications.

Budgets for direct costs of up to $250,000 per year and a project duration of up to four years may be requested for a maximum of $1,000,000 direct costs over a four-year period. Because the nature and scope of the proposed research may vary from application to application, the size of individual awards will also vary. The total amount awarded and the number of awards will depend on the numbers, quality, and costs of the applications received. The R01 application Research Plan component of the PHS398 may not exceed 25 pages, including tables, graphs, figures, diagrams, and charts.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; Hispanic-serving institutions; Historically Black Colleges and Universities; Tribally Controlled Colleges and Universities; Alaska Native- and Native Hawaiian- serving institutions; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; Indian/Native American tribal governments (Federally recognized); Indian/Native American tribally designated organizations; county governments; city or township governments; special district governments; Independent School Districts; public housing authorities/Indian housing authorities; U.S. territories or possessions; Indian/Native American tribal governments (other than Federally recognized); regional organizations; non-domestic (non-U.S.) entities (foreign organizations); eligible agencies of the Federal Government, and faith-based or community-based organizations. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/ organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs) may be designated on the application. Applicants may submit more than one application, provided each application is scientifically distinct. Resubmission applications are not permitted in response to this FOA. Renewal applications are not permitted for this FOA. This FOA uses non-standard due dates.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-HL-10-027.html.

■ MEDICAL LIABILITY REFORM AND PATIENT SAFETY DEMONSTRATION PROJECTS (R18): RFA-HS-10-021

Note Medical Liability Reform and Patient Safety Planning Grants (R21): RFA-HS-10-022
Details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-HS-10-022.html

Components of Participating Organizations
Agency for Healthcare Research and Quality

Application Receipt Date(s): January 20, 2010
Earliest Anticipated Start Date(s): Generally four months after peer review date

This Funding Opportunity Announcement (FOA) solicits demonstration projects to allow States and health care systems to develop, implement and evaluate medical liability models that put patient safety first and work to reduce preventable injuries; foster better communication between doctors and their patients; ensure that patients are fairly and quickly compensated in a fair and timely manner for medical injuries, while also reducing the incidence of frivolous lawsuits and liability premiums. This FOA uses the AHRQ Large Research Demonstration and Dissemination Grant (R18) award mechanism. Awards issued under this FOA depend upon the availability of funds and the

submission of a sufficient number of meritorious applications. Because the nature and scope of the proposed research may vary from application to application, AHRQ anticipates that the size and duration of each award may also vary. The total amount awarded and the number of awards depends upon the numbers, quality, duration, and costs of the applications received.

The total costs awarded to a grant under this FOA shall not exceed $3 million for the entire, three-year project period. The application may allocate the budget across the project period in accordance with its proposed work plan. AHRQ will not review an application with a project period that exceeds three years or a budget that exceeds $3 million total costs over the entire project period. Funding beyond the first year will depend upon AHRQ staff review of an annual progress report and acceptance of it as satisfactory. The R18 application Research Plan component may not exceed 25 pages, including tables, graphs, figures, diagrams, and charts.

Eligible institutions and organizations include: state governments; units of state governments; coalitions of state governments; established associations of state governments, and established health care systems. Hsiao defines a health system as having capacities (e.g., hospitals, physicians), activities (e.g., health services), interconnections (e.g., financing, oversight, management), and purpose.[30] Its components might include multiple States, localities, tribal governments, universities, colleges, hospitals, nonprofit organizations, faith-based organization, community-based organizations, and Federal agencies. Applicants to this FOA must share a long-established, legal entity as sponsor, and sufficient service volume to statistically power any proposed intervention. Organizations must also fit under AHRQ's grant authorization under 42 USC 299c-5(c), which allows AHRQ to make grants to public and nonprofit entities. Other organizations may participate in projects only as subcontractors. Because the purpose of this program seeks to improve healthcare in the United States, foreign institutions may participate in projects only as subcontractors. Organizations described in section 501(c) 4 of the Internal Revenue Code that engage in lobbying may not participate. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research should work with their institution/organization to develop an application for support. AHRQ encourages individuals from underrepresented racial and ethnic groups, as well as individuals with disabilities, to apply for this FOA. The application may designate only one PD/PI. Applicants may submit more than one application, provided each application is scientifically distinct. Resubmission applications are not permitted in response to this FOA. Renewal applications are not permitted in response to this FOA.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-HS-10-021.html.

■ ROADMAP TRANSFORMATIVE RESEARCH PROJECTS PROGRAM (R01): RFA-RM-09-022

Components of Participating Organizations
NIH Roadmap Initiatives

Application Receipt Date(s): January 22, 2010
Earliest Anticipated Start Date(s): September 1, 2010

As part of the NIH Roadmap for Biomedical Research, the National Institutes of Health invites transformative Research Project Grant (R01) applications from institutions/organizations proposing groundbreaking, exceptionally innovative, high risk, original and/or unconventional research with the potential to create new scientific paradigms or challenge existing ones. Projects must clearly demonstrate potential to produce a major impact in a broad area of biomedical or behavioral research. This FOA will utilize the NIH Research Project Grant (R01) award mechanism.

The NIH common fund intends to commit $25 million dollars in FY 2010. The number of awards will depend on the size and scope of the most meritorious applications. Budget requests should be commensurate with project needs for up to a five-year project period. There is no budget limit per proposal up to the budget cap for the program as a whole. The R01 application Research Strategy component of the PHS398 may not exceed 8 pages including tables, graphs, figures, diagrams, and charts.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; Hispanic-serving institutions; Historically Black Colleges and Universities; Tribally Controlled Colleges and Universities; Alaska Native- and Native Hawaiian- serving institutions; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; Indian/Native American tribal governments (Federally recognized); Indian/Native American tribally designated organizations; county governments; city or township governments; special district governments; Independent School Districts; public housing authorities/Indian housing authorities; U.S. territories or possessions; Indian/Native American tribal governments (other than Federally recognized); regional organizations; non-domestic (non-U.S.) entities (foreign organizations); eligible agencies of the Federal Government – with the exception of NIH intramural investigators, and faith-based or community-based organizations. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs) may be designated on the application. Applicants may submit more than one application, provided each application is scientifically distinct. Resubmission applications are not permitted in response to this FOA. Renewal applications are not permitted in response to this FOA. This FOA uses non-standard due dates.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-09-022.html.

■ BIOENGINEERING RESEARCH GRANTS (BRG)(R01): PA-10-009

Note Exploratory/Developmental Bioengineering Research Grants (EBRG) [R21]: PA-10-010
Details available at http://grants.nih.gov/grants/guide/pa-files/PA-10-010.html

Components of Participating Organizations
National Institute of Biomedical Imaging and Bioengineering
National Cancer Institute
National Eye Institute
National Human Genome Research Institute
National Heart, Lung, and Blood Institute
National Institute on Aging
National Institute on Alcohol Abuse and Alcoholism

National Institute of Arthritis and Musculoskeletal and Skin Diseases
Eunice Kennedy Shriver National Institute of Child Health and Human Development
National Institute on Drug Abuse
National Institute on Deafness and Other Communication Disorders
National Institute of Dental and Craniofacial Research
National Institute of Environmental Health Sciences
National Institute of General Medical Sciences
National Institute of Mental Health
National Institute of Neurological Disorders and Stroke

Application Due Date(s): Standard dates apply, see http://grants1.nih.gov/grants/funding/submissionschedule.htm

Participating Institutes and Centers of the NIH invite applications for R01 awards to support Bioengineering Research Grants (BRGs) for basic and applied multi-disciplinary research that addresses important biological, bioengineering or medical research problems. The BRGs support multi-disciplinary research performed in a single laboratory or by a small number of investigators that applies an integrative, systems approach to develop knowledge and/or methods to prevent, detect, diagnose, or treat disease or to understand health and behavior. A BRG application may propose hypothesis-driven, discovery-driven, developmental, or design-directed research.

This FOA will utilize the NIH Research Project Grant (R01) grant mechanism and runs in parallel with a FOA of similar scientific scope, "Exploratory/Developmental Bioengineering Research Grants," PA-10-010**,** that encourages applications under the R21 mechanism. Awards issued under this FOA are contingent upon the availability of funds and the submission of a sufficient number of meritorious applications. The total project period for an application submitted in response to this funding opportunity may not exceed 5 years. Because the nature and scope of the proposed research will vary from application to application, it is anticipated that the size and duration of each award will also vary. The R01 application Research Strategy section of the PHS398 may not exceed 12 pages, including tables, graphs, figures, diagrams, and charts. See Table of Page Limits.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; Hispanic-serving institutions; Historically Black Colleges and Universities; Tribally Controlled Colleges and Universities; Alaska Native- and Native Hawaiian- serving institutions; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; Indian/Native American tribal governments (Federally recognized); Indian/Native American tribally designated organizations; U.S. territories or possessions; Indian/Native American tribal governments (other than Federally recognized); regional organizations; non-domestic (non-U.S.) entities (foreign organizations), and eligible agencies of the Federal Government. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs), may be designated on the application. Applicants may submit more than one application, provided that each application is scientifically distinct. Applicants may submit a resubmission application, but such application must include an Introduction addressing the previous peer review critique (Summary Statement). See new NIH policy on resubmission (amended) applications (NOT-OD-09-003, NOT-OD-09-016). Applicants may submit a renewal application. All applications, including resubmission, revision and renewal, submitted for due dates January 25, 2010 and beyond, must utilize the most current forms and instructions.

Complete details available at http://grants.nih.gov/grants/guide/pa-files/PA-10-009.html.

■ MECHANISMS, MODELS, MEASUREMENT, AND MANAGEMENT IN PAIN RESEARCH (R01): PA-10-006

Note Mechanisms, Models, Measurement, & Management in Pain Research (R21): PA-10-007
Details available at http://grants.nih.gov/grants/guide/pa-files/PA-10-007.html
Note Mechanisms, Models, Measurement, and Management in Pain Research (R03): PA-10-008
Details available at http://grants.nih.gov/grants/guide/pa-files/PA-10-008.html

Components of Participating Organizations

National Institute of Nursing Research
National Center for Complementary and Alternative Medicine
National Cancer Institute
National Institute on Aging
National Institute of Arthritis and Musculoskeletal and Skin Diseases
Eunice Kennedy Shriver National Institute of Child Health and Human Development
National Institute on Drug Abuse
National Institute of Dental and Craniofacial Research
National Institute of Diabetes and Digestive and Kidney Diseases
National Institute of General Medical Sciences
National Institute of Neurological Disorders and Stroke

Application Due Date(s): Standard dates apply, see http://grants1.nih.gov/grants/funding/submissionschedule.htm

The purpose of this Funding Opportunity Announcement (FOA), "Mechanisms, Models, Measurement, & Management in Pain Research" issued by the National Institute of Nursing Research (NINR), in conjunction with members of the NIH Pain Consortium as listed above, is to inform the scientific community of the pain research interests of the various Institutes and Centers (ICs) at the National Institutes of Health (NIH) and to stimulate and foster a wide range of basic, clinical, and translational studies on pain as they relate to the missions of these ICs. New advances are needed in every area of pain research, from the micro perspective of molecular sciences to the macro perspective of behavioral and social sciences. Although great strides have been made in some areas, such as the identification of neural pathways of pain, the experience of pain and the challenge of treatment have remained uniquely individual and unsolved. Furthermore, our understanding of how and why individuals transition to a chronic pain state after an acute insult is limited. Research to address these issues conducted by interdisciplinary and multidisciplinary research teams is strongly encouraged, as is research from underrepresented, minority, disabled, or women investigators.

This FOA will utilize the NIH Research Project Grant (R01) grant mechanism and runs in parallel with FOAs of identical scientific scope, PA-10-008, which encourages applications under the R03 Small Research Grant mechanism and PA-10-007, which encourages applications under the R21 Exploratory/Developmental Grant mechanism.

Awards issued under this FOA are contingent upon the availability of funds and the submission of a sufficient number of meritorious applications. The total project period for an application submitted in response to this funding opportunity may not exceed 5 years. Applications for an R01 award are not limited in dollars but need to reflect the actual needs of the proposed project. The R01 application Research Strategy section of the PHS398 may not exceed 12 pages, including tables, graphs, figures, diagrams, and charts.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; Hispanic-serving institutions; Historically Black Colleges and Universities; Tribally Controlled Colleges and Universities; Alaska Native- and Native Hawaiian- serving institutions; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; Indian/Native American tribal governments (Federally recognized); Indian/Native American tribally designated organizations; county governments; city or township governments; special district governments; Independent School Districts; public housing authorities/Indian housing authorities; U.S. territories or possessions; Indian/Native American tribal governments (other than Federally recognized); regional organizations; non-domestic (non-U.S.) entities (foreign organizations); eligible agencies of the Federal Government, and faith-based or community-based organizations. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs), may be designated on the application. Applicants may submit more than one application, provided that each application is scientifically distinct. Applicants may submit a resubmission application, but such application must include an Introduction addressing the previous peer review critique (Summary Statement). See new NIH policy on resubmission (amended) applications (NOT-OD-09-003, NOT-OD-09-016). Applicants may submit a renewal application.

Complete details available at http://grants.nih.gov/grants/guide/pa-files/PA-10-006.html.

■ INNOVATIVE AND EARLY-STAGE DEVELOPMENT OF EMERGING TECHNOLOGIES IN BIOSPECIMEN SCIENCE (R21): RFA-CA-10-001

Components of Participating Organizations
National Cancer Institute

Application Due Dates: February 23, 2010; May 27, 2010; September 30, 2010

Earliest Anticipated Start Dates: December 2010; April 2011; July 2011

This Funding Opportunity Announcement (FOA), issued by the National Cancer Institute (NCI), National Institutes of Health (NIH), solicits grant applications proposing technically innovative feasibility studies focused on early stage development of cancer-relevant technologies that address the issues related to pre-analytical variations in the collection, processing, handling, and storage of biospecimens or its derivatives. The overall goal is to develop technologies capable of interrogating and/or maximizing the quality and utility of biospecimens or their derived samples for downstream molecular analyses. This FOA will support the development of tools, devices, instrumentation, and associated methods to assess sample quality, preserve/protect sample integrity, and establish verification criteria for quality assessment/quality control and handling under diverse conditions. These technologies are expected to have a potential to accelerate and/or enhance the research in cancer biology, prevention, diagnosis, treatment, epidemiology, and cancer health disparities, by reducing pre-analytical variations that affect biospecimen and/or sample quality. All projects must include quantitative milestones (i.e. technical metrics that determine whether the specific aims have been accomplished). This funding opportunity is part of a broader NCI-sponsored Innovative Molecular Analysis Technologies (IMAT) Program.

This FOA will utilize the NIH Exploratory/Developmental (R21) grant mechanism, and runs parallel with a FOA of identical scientific scope, RFA-CA-10-002, that solicits applications under the NIH R33 grant mechanism.

The NCI intends to commit a total of approximately $1,500,000 to this FOA in fiscal year 2010 to fund up to seven applications in response to this FOA. The total project period for an application submitted in response to this FOA may not exceed 2 years. Direct costs are limited to $275,000 over an R21 2-year period, with no more than $200,000 in direct costs allowed in any single year. The R21 application Research Strategy section of the PHS398 may not exceed 6 pages, including tables, graphs, figures, diagrams, and charts.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; U.S. territories or possessions; non-domestic (non-U.S.) entities (foreign organizations), and eligible agencies of the Federal Government. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/ organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs) may be designated on the application. Applicants may submit more than one application, provided each application is scientifically distinct. Applicants may submit a resubmission application, but such application must include an Introduction addressing the previous peer review critique (Summary Statement). See new NIH policy on resubmission (amended) applications (NOT-OD-09-003, NOT-OD-09-016). Exploratory/developmental grant support is for new projects only; competing renewal (formerly "competing continuation") applications will not be accepted. This FOA uses non-standard due dates.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-10-001.html.

■ VALIDATION AND ADVANCED DEVELOPMENT OF EMERGING TECHNOLOGIES IN BIOSPECIMEN SCIENCE (R33): RFA-CA-10-002

Components of Participating Organizations
National Cancer Institute

Application Due Date(s): February 23, 2010; May 27, 2010; September 30, 2010
Earliest Anticipated Start Date(s): December 2010; April 2011; July 2011

This Funding Opportunity Announcement (FOA), issued by the National Cancer Institute (NCI), National Institutes of Health (NIH), solicits grant applications proposing technically innovative feasibility studies focused on the advanced development and validation of cancer-relevant technologies that address the issues related to pre-analytical variations in the collection, processing, handling, and storage of biospecimens or its derivatives. The overall goal is to develop technologies capable of interrogating and/or maximizing the quality and utility of biospecimens or their derived samples for downstream molecular analyses. This FOA will support the development of tools, devices, instrumentation, and associated methods to assess sample quality, preserve/protect sample integrity, and establish verification criteria for quality assessment/quality control and handling under diverse conditions. This FOA solicits R33 applications; this mechanism is suitable for projects where "proof-of-principle" of the proposed technology or methodology has already been established and supportive preliminary data are available. Projects proposing to use established technologies where the novelty resides in the biological or clinical question being pursued is an example of a topic not appropriate for this solicitation and will be returned as non-responsive. This funding opportunity is part of a broader NCI-sponsored Innovative Molecular Analysis Technologies (IMAT) Program.

This FOA will utilize the R33 grant mechanism and runs in parallel with a FOA of identical scientific scope, RFA-CA-10-001 that solicits applications under the NIH Exploratory/Developmental R21 grant mechanism. The NCI intends to commit a total of approximately $2,250,000 in fiscal year 2010 to award up to 7 grants in response to this FOA. An applicant for an R33 grant may request a project period of up to 3 years with a budget appropriate to the science proposed. Direct costs cannot exceed $300,000 for any given year. The R33 application Research Strategy section of the PHS398 may not exceed 12 pages, including tables, graphs, figures, diagrams, and charts.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; U.S. territories or possessions; non-domestic (non-U.S.) entities (foreign organizations), and eligible agencies of the Federal Government. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/ organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs) may be designated on the application. Applicants may submit more than one application, provided each application is scientifically distinct. Applicants may submit a resubmission application, but such application must include an Introduction addressing the previous peer review critique (Summary Statement). See new NIH policy on resubmission (amended) applications (NOT-OD-09-003, NOT-OD-09-016). Exploratory/developmental grant support is for new projects only; competing renewal (formerly "competing continuation") applications will not be accepted. This FOA uses non-standard due dates.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-10-002.html.

■ APPLICATION AND EARLY STAGE DEVELOPMENT OF EMERGING TECHNOLOGIES IN CANCER RESEARCH (R21): RFA-CA-10-003

Components of Participating Organizations
National Cancer Institute

Application Due Date(s): February 23, 2010; May 27, 2010; September 30, 2010.
Earliest Anticipated Start Date(s): December 2010; April 2011; July 2011

This Funding Opportunity Announcement (FOA), issued by the National Cancer Institute (NCI), National Institutes of Health (NIH), solicits grant applications that propose exploratory research projects on the initial application of emerging analytical technologies as laboratory or clinical tools. An "emerging technology" is defined as one that has passed the initial developmental stage, but has not yet been evaluated within the context of its intended use. Projects proposed in response to this FOA should have the potential to produce a major impact in a broad area of cancer-relevant research. If successful, these technologies would accelerate research in cancer biology, cancer treatment and diagnosis, cancer prevention, cancer control and epidemiology, and/or cancer health disparities. This FOA solicits R21 applications that have high potential impact and allows for an element of technical risk; preliminary data are not required. All projects must include quantitative milestones (i.e. technical metrics that determine whether the specific aims have been accomplished). Projects proposing to use established technologies where the novelty resides in the biological or clinical question being pursued are not appropriate for this solicitation and will be returned as non-responsive. This funding opportunity is part of a broader NCI-sponsored Innovative Molecular Analysis Technologies (IMAT) Program.

This FOA will utilize the R21 grant mechanism and runs in parallel with a FOA of identical scientific scope, RFA-CA-10-004, that solicits applications under the NIH Application R33 grant mechanism. The NCI intends to commit a total of approximately $2,250,000 to this FOA in fiscal year 2010 to fund up to 7 applications in response to this FOA. The total project period for an application submitted in response to this funding opportunity may not exceed 2 years. Direct costs are limited to $275,000 over an R21 2-year period, with no more than $200,000 in direct costs allowed in any single year. The R21 application Research Strategy section

of the PHS398 may not exceed 6 pages, including tables, graphs, figures, diagrams, and charts.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; U.S. territories or possessions; non-domestic (non-U.S.) entities (foreign organizations), and eligible agencies of the Federal Government. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/ organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs) may be designated on the application. Applicants may submit more than one application, provided each application is scientifically distinct. Applicants may submit a resubmission application, but such application must include an Introduction addressing the previous peer review critique (Summary Statement). See new NIH policy on resubmission (amended) applications (NOT-OD-09-003, NOT-OD-09-016). Exploratory/developmental grant support is for new projects only; competing renewal (formerly "competing continuation") applications will not be accepted. This FOA uses non-standard due dates.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-10-003.html.

■ VALIDATION AND ADVANCED DEVELOPMENT OF EMERGING TECHNOLOGIES FOR CANCER RESEARCH (R33): RFA-CA-10-004

Components of Participating Organizations
National Cancer Institute

Letters of Intent Receipt Date(s): January 23, 2010; April 27, 2010; August 30, 2010
Application Due Date(s): February 23, 2010; May 27, 2010; September 30, 2010
Earliest Anticipated Start Date(s): December 2010; April 2011; July 2011

This Funding Opportunity Announcement (FOA), issued by the National Cancer Institute (NCI), National Institutes of Health (NIH), solicits grant applications proposing research projects on the advanced development of emerging molecular and cellular analysis technologies through technical/analytical validation in an appropriate cancer-relevant biological system. An "emerging technology" is defined as one that has passed the pilot developmental stage and shows promise, but has not yet been evaluated within the context of its intended use. If successful, these technologies would accelerate research in cancer biology, cancer treatment and diagnosis, cancer prevention, cancer control and epidemiology, and/or cancer health disparities. This FOA solicits R33 applications; this mechanism is suitable for projects where "proof-of-principle" of the proposed technology or methodology has been established and supportive preliminary data are available. Projects proposed to this FOA should reflect the potential to produce a major impact in a broad area of cancer-relevant research. Projects proposing to use established technologies where the novelty resides in the biological or clinical question being pursued are not appropriate for this solicitation and will be returned as non-responsive. This funding opportunity is part of a broader NCI-sponsored Innovative Molecular Analysis Technologies (IMAT) Program.

This FOA will utilize the R33 grant mechanism and runs in parallel with a FOA of identical scientific scope, RFA-CA-10-003, that solicits applications under the NIH Exploratory/Developmental R21 grant mechanism. The NCI intends to commit a total of approximately $2,250,000 to this FOA in fiscal year 2010 to award up to 7 grants. An applicant for an R33 grant may request a project period of up to 3 years with a budget appropriate to the science proposed. Direct costs cannot exceed $300,000 for any given year. The R33 application Research Strategy section of the PHS398 may not exceed 12 pages, including tables, graphs, figures, diagrams, and charts.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; U.S. territories or possessions; non-domestic (non-U.S.) entities (foreign organizations), and eligible agencies of the Federal Government. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/ organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs) may be designated on the application. Applicants may submit more than one application, provided each application is scientifically distinct. Applicants may submit a resubmission application, but such application must include an Introduction addressing the previous peer review critique (Summary Statement). See new NIH policy on resubmission (amended) applications (NOT-OD-09-003, NOT-OD-09-016). Exploratory/developmental grant support is for new projects only; competing renewal (formerly "competing continuation") applications will not be accepted. This FOA uses non-standard due dates.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-10-004.html.

■ TECHNOLOGIES FOR IMAGE-GUIDED INTERVENTIONS (R01): RFA-EB-09-002

Components of Participating Organizations
National Institute of Biomedical Imaging and Bioengineering

Application Due Date(s): January 20, 2010
Earliest Anticipated Start Date(s): December, 2010

This funding opportunity announcement (FOA) solicits research project grant (R01) applications that propose high-impact technologies for image-guided interventions. As defined here, image-guided interventions (IGI), integrate images for navigation during a treatment or biopsy. The goal of the IGI initiative is to produce technologies that will replace current treatments with

minimally invasive, image-guided interventions. A disruptive technology is a new technological innovation that replaces the existing dominant technology. Examples of disruptive technologies include image-guided procedures that replace invasive surgery with faster, less invasive and/or lower-cost image-guided interventions. This FOA is intended to support the second phase of a two-phase project that will deliver image-guided interventions that have a high clinical impact. Preliminary data describing a prototype system that demonstrates the feasibility of the image-guided intervention is required to apply to this solicitation. Multidisciplinary collaborations and/or partnerships with industry are encouraged, but are not required. In addition, development of technology platforms that might have applicability across a range of clinical conditions are suitable.

This Funding Opportunity Announcement (FOA) will utilize the research project grant R01 mechanism. The NIBIB intends to commit up to $5,000,000 to this FOA in FY2010, and anticipates funding 4-6 awards. An applicant may request a project period of up to five years and a budget for total direct costs may not exceed $750,000 in any year of the project period. It is anticipated that most applications will request $500,000 to $750,000 per year direct costs. The R01 application Research Plan component of the PHS398 may not exceed 13 pages, including tables, graphs, figures, diagrams, and charts.

Eligible institutions and organizations include: public or state controlled institutions of higher education; private institutions of higher education; Hispanic-serving institutions; Historically Black Colleges and Universities; Tribally Controlled Colleges and Universities; Alaska Native- and Native Hawaiian- serving institutions; nonprofit organizations with 501(c)(3) IRS status (other than institutions of higher education); nonprofit organizations without 501(c)(3) IRS status (other than institutions of higher education); small businesses; for-profit organizations (other than small businesses); state governments; Indian/Native American tribal governments (Federally recognized); Indian/Native American tribally designated organizations; county governments; city or township governments; special district governments; Independent School Districts; public housing authorities/Indian housing authorities; U.S. territories or possessions; Indian/Native American tribal governments (other than Federally recognized); regional organizations; non-domestic (non-U.S.) entities (foreign organizations); eligible agencies of the Federal Government, and faith-based or community-based organizations. Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/ organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support. More than one PD/PI (i.e., multiple PDs/PIs) may be designated on the application. Applicants may submit more than one application, provided each application is scientifically distinct. Resubmission applications are not permitted in response to this FOA. Renewal applications are not permitted for this FOA. This FOA uses non-standard due dates.

Complete details available at http://grants.nih.gov/grants/guide/rfa-files/RFA-EB-09-002.html.

