Federal Funding Opportunities

Multidisciplinary

US Navy Summer Faculty Research Program and Sabbatical Leave Program [http://www.onr.navy.mil/Education-Outreach/Summer-Faculty-Research-Sabbatical.aspx]

Biology

BioChemistry

NIH mechanisms by which Brandeis researchers are currently funded (from [https://projectreporter.nih.gov/]):

- DP2
- F31 (Predoctoral Individual National Research Service Award) (aka predoc NRSA)
- F32 (Postdoctoral Individual National Research Service Award) (aka postdoc NRSA)
- K01 (Mentored Research Scientist Career Development Award)
- K99/R00 (Pathway to Independence Award)
- P01 (Program Project/Center Grants)
- P30
- R01 (Research Project Grants)
- R03 (NIH Small Grant Program)
- R21
- R34
- R37
- R56
- R90/T90
- T32 (Institutional Training Grants)
- U01

Other NIH mechanism applied for, or held in the past

- F99/K00
- R25 (Research Education Program) (an umbrella of many different kinds of programs)

Chemistry


CoSci


Math

Physics


Psychology

Some links

- Search grants.gov
- NIH Funding Opportunities and Notices
- DOE Funding Opportunities
| Notice of NHLBI Participation in PA-17-225 "Advancing the Science of Geriatric Palliative Care (R01) |
| Notice NOT-HL-17-558 from the NIH Guide for Grants and Contracts |

| Notice of Extension of the Response Date for NOT-LM-17-006 "Request for Information (RFI): Next-Generation Data Science Challenges in Health and Biomedicine" |
| Notice NOT-LM-18-001 from the NIH Guide for Grants and Contracts |

| Request for Information on Developing Experimental Design "Emoji" Symbols for Use in Scientific Presentations |
| Notice NOT-NS-18-014 from the NIH Guide for Grants and Contracts |

| Notice to Clarify Projects that will Not Be Supported under PAR-16-369 Resource-Related Research Projects for Development of Animal Models and Related Materials (R24) |

| Notice of Intent to Re-Issue a Funding Opportunity Announcement (FOA) Rare Diseases Clinical Research Consortia (RDCRC) for Rare Diseases Clinical Research Network (U54) |

| Notice of Intent to Re-Issue a Funding Opportunity Announcement (FOA) Data Management and Coordinating Center (DMCC) for Rare Diseases Clinical Research Network (RDCRN) (U01) |
| Notice NOT-TR-18-003 from the NIH Guide for Grants and Contracts |

| Notice of Clarification to PAR-15-304 Clinical and Translational Science Award (U54) |

| Notice of Change in Application |
Due dates for PAR-17-001 "Emerging Global Leader Award (K43)"
Notice NOT-TW-18-001 from the NIH Guide for Grants and Contracts

Notice of Change in Eligibility for PAR-17-001 "Emerging Global Leader Award (K43)"
Notice NOT-TW-18-002 from the NIH Guide for Grants and Contracts

Systems Biology Approaches using Non-Mammalian Laboratory Animals to Uncover Causes of Neurodegeneration that Might Underlie Alzheimers Disease and Related Dementias (R01 Clinical Trial Not Allowed)
Funding Opportunity
The National Institute on Aging is seeking applications on systems biology approaches using non-mammalian laboratory animal models to increase our understanding of the basic biology underpinning neurodegeneration. It is expected that research supported under this FOA will provide new insights into molecular networks that might be involved in causing, amplifying or protecting against neurodegeneration, and that, in turn, might ultimately contribute to Alzheimer’s disease or related dementias. Importantly, a major goal of this FOA is to use interaction and regulatory networks produced and analyzed using systems biology to gain these new insights. Because this FOA is directed toward discovery, currently employed genetically modified laboratory animals used to study AD are not required, although they may be used. Because this FOA requires systems biology approaches, data used to build interaction or regulatory networks may also come from humans or other mammals in which AD, related dementias, or aging-related cognitive decline have been observed. This FOA will only support studies using non-mammalian laboratory animal models; studies involving humans or
experiments with mammals will not be allowed under this FOA.

**Studies of HIV in Digestive Diseases Limited to Gastrointestinal Mucosal Immunology and Liver Diseases (R01- Clinical Trial Optional)**

Funding Opportunity RFA-DK-17-038 from the NIH Guide for Grants and Contracts. The goal of this FOA is to support innovative, basic and translational research in two areas, gastrointestinal (GI) mucosal immunology and liver disease. The emphasis for GI mucosal immunology is on elucidation of mechanisms whereby innate and adaptive immunity in the GI tract interacts with HIV infection in the presence or absence of antiretroviral therapy (ART) and contributes to HIV infection, persistence, disruption of GI homeostasis, and pathogenesis. The emphasis for liver disease is on pathophysiologic mechanisms of injury to the liver and the biliary system during HIV infection and epidemiological studies of liver diseases and disorders in HIV patients.

**Environmental Health Sciences Core Centers (EHS CC) (P30 Clinical Trial Optional)**

Funding Opportunity RFA-ES-18-003 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) invites grant applications for Environmental Health Sciences Core Centers (EHS CC). As intellectual hubs for environmental health research, the EHS CC is expected to be the thought leaders for the field and advance the goals of the NIEHS Strategic Plan (http://www.niehs.nih.gov/about/strategicplan/). The Core Centers provide critical research infrastructure, shared facilities, services and/or resources, to groups of investigators conducting environmental health sciences research. An EHS CC enables researchers to conduct their independently-funded individual and/or collaborative research...
projects more efficiently and/or more effectively. The broad overall goal of an EHS CC is to identify and capitalize on emerging issues that advance improving the understanding of the relationships among environmental exposures, human biology, and disease. The EHS CC supports community engagement and translational research as key approaches to improving public health.

**Contraception Research Centers Program (U54)**
Funding Opportunity RFA-HD-18-035 from the NIH Guide for Grants and Contracts. The primary purpose of this announcement is to support and facilitate multidisciplinary approaches to the development of new and/or improved contraceptive methods for both men and women through the formation of Contraceptive Research Centers. This FOA also allows the inclusion of behavioral and social science research projects to inform on contraceptive use and non-use of marketed products or products in clinical development. The Centers will serve as a national resource for development of early stage investigators electing to pursue careers in contraceptive research.

**Mentored Career Development Award to Promote Faculty Diversity in Biomedical Research (K01) (Clinical Trial Required)**
Funding Opportunity RFA-HL-18-027 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) invites applications to enhance the pool of of highly trained investigators from diverse backgrounds underrepresented in research. It is targeted toward individuals whose basic, clinical, and translational research interests are grounded in the advanced methods and experimental approaches needed to solve problems related to cardiovascular, pulmonary, and hematologic diseases and sleep disorders in
the general and health disparities populations. This FOA invites applications from Institutions with eligible faculty members to undertake special study and supervised research under a mentor who is an accomplished investigator in the research area proposed and has experience in developing independent investigators.

**Mechanisms of Disparities for HIV-Related Co-morbidities in Health Disparity Populations (R01-Clinical Trial Not Allowed)**
Funding Opportunity
The purpose of this initiative is to support research to determine the underlying mechanisms of how HIV related co-morbidities may influence the complexity of HIV/AIDS disease progression, quality of life and overall health outcomes among HIV positive individuals from health disparity populations.

**BRAIN Initiative Fellows: Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (F32)**
Funding Opportunity
The purpose of the BRAIN Initiative Fellows (F32) program is to enhance the research training of promising postdoctorates, early in their postdoctoral training period, who have the potential to become productive investigators in research areas that will advance the goals of the BRAIN Initiative. Applications are encouraged in any research area that is aligned with the BRAIN Initiative, including neuroethics. Applicants are expected to propose research training in an area that clearly complements their predoctoral research. Formal training in analytical tools appropriate for the proposed research is expected to be an integral component of the research training plan. In order to maximize the training potential of the F32 award, this
program encourages applications from individuals who have not yet completed their terminal doctoral degree and who expect to do so within 12 months of the application due date. On the application due date, candidates may not have completed more than 12 months of postdoctoral training.

NIH Blue Print: Development and Validation of Technologies for Rapid Isolation and Characterization of Extracellular Vesicles of Central Nervous System Origin (R21/R33 Clinical Trial Not Allowed)
Funding Opportunity RFA-MH-18-600 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) encourages applications that will develop novel technologies and/or tools for the isolation and characterization of extracellular vesicles (EVs) of Central Nervous System (CNS) origin. The primary focus of the technology development includes robust and reproducible CNS-EV isolation methods. Specifically, there is a need to establish technologies for the isolation and purification of CNS-EVs from peripheral samples and the characterization of CNS-EV types, cargos, and origin, as well as to validate these methods for further analyses. Validation of these technologies may include the analysis of the full range of EV composition such as RNA, proteins, lipids, and metabolites.

Altered neuronal circuits, receptors and networks in HIV-induced Central Nervous System (CNS) dysfunction (R01)-Clinical Trial Not Allowed
Funding Opportunity RFA-MH-18-610 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) invites research grant applications to decipher pathways and mechanisms responsible for HIV-1 induced central nervous system (CNS) dysfunction seen in virally suppressed HIV-1 positive patients, by understanding the causal role
played by altered neuronal circuits, neuronal receptors and neuronal networks. Basic and translational research in domestic and international settings are of interest. Multidisciplinary research teams and collaborative alliances are encouraged but not required.

<table>
<thead>
<tr>
<th>Funding Opportunity RFA-MH-18-611 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) invites research grant applications to decipher pathways and mechanisms responsible for HIV-1 induced central nervous system (CNS) dysfunction seen in virally suppressed HIV-1 positive patients, by understanding the causal role played by altered neuronal circuits, neuronal receptors and neuronal networks. Basic and translational research in domestic and international settings are of interest. Multidisciplinary research teams and collaborative alliances are encouraged but not required.</th>
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<th>Altered neuronal circuits, receptors and networks in HIV-induced Central Nervous System (CNS) dysfunction (R21- Clinical Trial Not Allowed)</th>
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<th>Funding Opportunity RFA-NS-18-011 from the NIH Guide for Grants and Contracts. The purpose of this Funding Opportunity Announcement (FOA) is to encourage applications to pursue translational activities and small clinical studies to advance the development of therapeutic, and diagnostic devices for disorders that affect the nervous or neuromuscular systems. The translational device activities, including translational bench and animal studies, are expected to lead to submission of an Investigational Device Exemption (IDE) to the U.S. Food and Drug Administration (FDA) or Institutional Review Board (IRB).</th>
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application for a Non-Significant Risk (NSR) study. This cooperative agreement will also support the subsequent small clinical study to collect safety and effectiveness data required to support a marketing application or to inform final device design.

Translational Neural Devices (U44 - Clinical Trial Required)
Funding Opportunity RFA-NS-18-012 from the NIH Guide for Grants and Contracts. The purpose of this Funding Opportunity Announcement (FOA) is to encourage applications from Small Business Concerns (SBCs) to pursue translational activities and small clinical studies to advance the development of therapeutic and diagnostic devices for disorders that affect the nervous or neuromuscular systems. The translational device activities, including translational bench and animal studies, are expected to lead to submission of an Investigational Device Exemption (IDE) to the U.S. Food and Drug Administration (FDA) or Institutional Review Board (IRB) application for a Non-Significant Risk (NSR) study. This cooperative agreement will also support the subsequent small clinical study to collect safety and effectiveness data required to support a marketing application or to inform final device design.

The Health of Sexual and Gender Minority (SGM) Populations (R01 Clinical Trial Optional)
Funding Opportunity PA-18-037 from the NIH Guide for Grants and Contracts. The National Institutes of Health (NIH) is committed to supporting research that will increase scientific understanding of the health status of diverse population groups and thereby improve the effectiveness of health interventions and services for individuals within those groups. Priority is placed on understudied populations with distinctive health risk profiles. This funding opportunity announcement
The Health of Sexual and Gender Minority (SGM) Populations (R21 Clinical Trial Optional)
Funding Opportunity PA-18-040 from the NIH Guide for Grants and Contracts. The National Institutes of Health (NIH) is committed to supporting research that will increase scientific understanding of the health status of diverse population groups and thereby improve the effectiveness of health interventions and services for individuals within those groups. Priority is placed on understudied populations with distinctive health risk profiles. This funding opportunity announcement (FOA) focuses on sexual and gender minority (SGM) populations, including lesbian, gay, bisexual, transgender, and intersex populations. Basic, social, behavioral, clinical, and services research relevant to the missions of the sponsoring Institutes and Centers may be proposed.

The Health of Sexual and Gender Minority (SGM) Populations (R03 Clinical Trial Optional)
Funding Opportunity PA-18-054 from the NIH Guide for Grants and Contracts. The National Institutes of Health (NIH) is committed to supporting research that will increase scientific understanding of the health status of diverse population groups and thereby improve the effectiveness of health interventions and services for individuals within those groups. Priority is placed on understudied populations with distinctive health risk profiles. This funding opportunity announcement (FOA) focuses on sexual and gender minority (SGM) populations, including lesbian, gay, bisexual, transgender, and intersex populations. Basic, social, behavioral, clinical, and services research relevant to the missions of the sponsoring Institutes and Centers may be proposed.
transgender, and intersex populations. Basic, social, behavioral, clinical, and services research relevant to the missions of the sponsoring Institutes and Centers may be proposed.

**Multidisciplinary Research in Vulvodynia (R01 Clinical Trial Optional)**
Funding Opportunity PA-18-089 from the NIH Guide for Grants and Contracts. The purpose of this Funding Opportunity Announcement (FOA) is to indicate a continued interest in the topic area of vulvodynia or chronic vulvar pain of unknown etiology as an integral area of branch research. This announcement is intended to encourage new research applications in the exploration of etiology, prevention, diagnosis, and therapeutics in the field of vulvodynia. Applications utilizing multidisciplinary approaches and interdisciplinary investigative teams are of particular interest to advance this research agenda.

**Multidisciplinary Research in Vulvodynia (R21 Clinical Trial Optional)**
Funding Opportunity PA-18-096 from the NIH Guide for Grants and Contracts. The purpose of this Funding Opportunity Announcement (FOA) is to indicate a continued interest in the topic area of vulvodynia or chronic vulvar pain of unknown etiology as an integral area of branch research. This announcement is intended to encourage new research applications in the exploration of etiology, prevention, diagnosis, and therapeutics in the field of vulvodynia. Applications utilizing multidisciplinary approaches and interdisciplinary investigative teams are of particular interest to advance this research agenda.

**End-of-Life and Palliative Needs of Adolescents and Young Adults (AYA) with Serious Illnesses (R01 Clinical Trial Optional)**
Funding Opportunity PA-18-137 from the NIH Guide for Grants
Personalized Strategies to Manage Symptoms of Chronic Illness (R01 Clinical Trial Optional)
Funding Opportunity PA-18-138 from the NIH Guide for Grants and Contracts. The purpose of this initiative is to encourage interdisciplinary research to decrease symptom burden and enhance health-related quality of life (HRQL) in persons with chronic illness through a) increasing knowledge of the biological mechanisms of symptoms and b) promoting innovative, cost-effective, targeted interventions to prevent, manage or ameliorate these symptoms.

Innovative Questions in Symptom Science and Genomics (R01 Clinical Trial Optional)
Funding Opportunity PA-18-139 from the NIH Guide for Grants and Contracts. This initiative seeks to optimize innovation, insight and cutting edge conceptual and technological breakthroughs by catalyzing research that emanates from the identified innovative questions in symptom and genomic nursing science. These innovative questions are reflective of broad domains from which more specific novel hypotheses or problems to be solved can be derived.

Applying Metabolomics to Drive Biomarker Discovery in Symptom Science (R01 Clinical Trial Optional)
Funding Opportunity PA-18-138 from the NIH Guide for Grants and Contracts. The purpose of this funding opportunity announcement (FOA) is to foster research on the unique perspectives, needs, wishes, and decision-making processes of adolescents and young adults (AYA; defined by the World Health Organization and the Centers for Disease Control and Prevention as youth between 12-24 years of age) with serious, advanced illnesses; and research focused on specific end-of-life/palliative care (EOLPC) models that support the physical, psychological, spiritual, and social needs of AYA with serious illness, their families and caregivers.
Mechanisms, Models, Measurement, and Management in Pain Research (R01 Clinical Trial Optional)

Funding Opportunity PA-18-141 from the NIH Guide for Grants and Contracts. The purpose of this Funding Opportunity Announcement (FOA) 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 injury 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.

Environmental Exposures and Health: Exploration of Non-Traditional Settings (R01 Clinical Trial Optional)

Funding Opportunity PA-18-142 from the NIH Guide for Grants and Contracts. The purpose of
this funding opportunity announcement (FOA) is to encourage interdisciplinary research aimed at promoting health, preventing and limiting symptoms and disease, and reducing health disparities across the lifespan for those living or spending time in non-traditional settings (i.e. playgrounds and nursing homes). These settings result in exposure to environmental pollutants and toxins that result in health risks, symptoms, and other health conditions/diseases; including lower respiratory disease, chronic obstructive pulmonary disease, cardiovascular disease, and complex environmental exposures that may be exacerbated by non-chemical stressors encountered in community settings, physiological function of organs and systems of the fetus/child/adolescence, and lower respiratory disease. Risk identification and symptom management include prevention and behavior changes and actions to maintain health and prevent disease with an emphasis on the individual, family, and community which will advance nursing science. For purposes of this FOA, non-traditional settings include, but are not limited to, places such as community centers; pre-school and non-traditional school environments (e.g., churches, daycare, home-based schools, dormitories, alternative schools, and playgrounds); child and older adult foster care facilities; older adult day care facilities; half-way homes; and assisted living and long-term care facilities.

Symptom Management in HIV-Infected Individuals with Comorbid Conditions (R01 Clinical Trial Optional)
Funding Opportunity PA-18-143 from the NIH Guide for Grants and Contracts. The FOA invites research applications focused on developing, adapting and testing innovative cost-effective strategies to prevent, identify and manage symptoms of
HIV-associated Non-AIDS conditions (HANA) and other comorbidities among older adults with prolonged HIV infection.

**Health Promotion Among Racial and Ethnic Minority Males (R01 Clinical Trial Optional)**

Funding Opportunity PA-18-144 from the NIH Guide for Grants and Contracts. This initiative seeks applications that propose to stimulate and expand research in the health of minority men. Specifically, this initiative is intended to:

1) enhance our understanding of the numerous factors (e.g., sociodemographic, community, societal, personal) influencing the health promoting behaviors of racial and ethnic minority males across the life cycle, and
2) encourage applications focusing on the development and testing of culturally and linguistically appropriate health-promoting interventions designed to reduce health disparities among racially and ethnically diverse males age 18 and older.

**Use of Technology to Enhance Patient Outcomes and Prevent Illness (R01 Clinical Trial Optional)**

Funding Opportunity PA-18-145 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) seeks clinical research focused on the development and utilization of technologies that can help address patient outcomes. Relevant areas of technology include remote healthcare delivery to patients via telehealth, robotics to enhance medication adherence, on-site (e.g., clinical or home setting) care delivery, mobile health to increase access and adherence, web-based decision support tools, and others. Research projects may focus on assessment, diagnosis, intervention development, or intervention implementation. Research projects that a) incorporate emerging and cutting edge technologies to explain and predict patient
trajectories, b) inform interventions, c) support real-time clinical decision making, and d) facilitate effective long-term management of chronic illness are especially needed. Critical to this FOA, proposed research should identify specific patient outcomes expected to improve from technological approaches. The specific tools or interventions proposed should clearly indicate how they will enhance patient benefits in environments, such as clinical settings, and/or in the home and community.

<table>
<thead>
<tr>
<th>Self-Management Interventions and Technologies to Sustain Health and Optimize Functional Capabilities (R01 Clinical Trial Optional)</th>
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<tr>
<td>Funding Opportunity PA-18-146 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) seeks clinical research on self-management interventions and technologies that improve health and quality of life in persons needing assistance to optimize and maintain existing functional capabilities, prevent/delay disabilities and navigate their environment. The research focus encompasses maintenance/restorative care that can be tailored to individuals existing functional abilities and interests and is intended to enhance physical, sensory, motor, and mental capabilities. Of particular interest is research designed to maintain functional capabilities in such conditions as cardiac and respiratory insufficiency, movement impairment associated with arthritis, chronic back pain, stroke, and other physical or cognitive disabilities.</td>
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<th>Addressing Unmet Needs in Persons with Dementia to Decrease Behavioral Symptoms and Improve Quality of Life (R01 Clinical Trial Optional)</th>
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<tbody>
<tr>
<td>Funding Opportunity PA-18-147 from the NIH Guide for Grants and Contracts. The purpose of this funding opportunity announcement (FOA) is to stimulate clinical research</td>
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</table>
addressing behavioral and psychological symptoms of dementia (BPSD) and the association of BPSD with unmet physical, social, or environmental needs in persons with dementia.

**Improving Individual and Family Outcomes through Continuity and Coordination of Care in Hospice (R01 Clinical Trial Optional)**

Funding Opportunity PA-18-148 from the NIH Guide for Grants and Contracts. This funding opportunity announcement (FOA) seeks to stimulate research that focuses on reducing negative individual and family outcomes related to unwanted transitions at the end of life and optimizing the individual and family outcomes related to high quality coordination of care of care of individuals who are enrolled in hospice. This FOA emphasizes individuals who are receiving hospice care and their family caregivers, in any setting where hospice care is provided, including their home, a relatives home, a hospice inpatient facility, an assisted living facility, a short- or long-term care facility, or a hospital.

**Palliative Care Needs of Individuals with Advanced Rare Diseases and Their Family Caregivers (R01 Clinical Trial Optional)**

Funding Opportunity PA-18-149 from the NIH Guide for Grants and Contracts. This funding opportunity announcement (FOA) seeks to expand knowledge and increase the evidence base for palliative care (PC) in advanced rare diseases, including rare cancers, and to improve physical and psychosocial well-being and quality of life among seriously ill individuals and their family caregivers.

**Promoting Caregiver Health Using Self-Management (R01 Clinical Trial Optional)**

Funding Opportunity PA-18-150 from the NIH Guide for Grants and Contracts. The purpose of this initiative is to stimulate research in promoting caregiver
Caregiving is an important science area since the number of people living longer with chronic conditions is growing. Informal caregivers (lay caregivers) are defined as unpaid individuals (spouses, partners, family members, friends, or neighbors) involved in assisting others with activities of daily living and/or medical tasks. Formal caregivers are paid, delivering care in one's home or care settings (daycare, residential care facility). This concept focuses on informal caregivers.

**Chronic Condition Self-Management in Children and Adolescents (R01 Clinical Trial Optional)**

Funding Opportunity PA-18-151 from the NIH Guide for Grants and Contracts. The purpose of this Funding Opportunity Announcement (FOA) is to encourage research to improve self-management and quality of life in children and adolescents with chronic conditions. Managing a chronic condition is an unremitting responsibility for children and their families. Children with a chronic condition and their families have a long-term responsibility for self-management. This FOA encourages research that takes into consideration various factors that influence self-management such as individual differences, biological and psychological factors, family/caregivers and sociocultural context, family-community dynamics, healthcare system factors, technological advances, and the role of the environment.

**Reducing Health Disparities Among Minority and Underserved Children (R01 Clinical Trial Optional)**

Funding Opportunity PA-18-152 from the NIH Guide for Grants and Contracts. This initiative encourages research that targets the reduction of health disparities among children. Investing in early childhood development is essential. Specific targeted areas of...
research include bio-behavioral studies that incorporate multiple factors that influence child health disparities such as biological (e.g., genetics, cellular, organ systems), lifestyle factors, environmental (e.g., physical and family environments) social (e.g., peers), economic, institutional, and cultural and family influences; studies that target the specific health promotion needs of children with a known health condition and/or disability; and studies that test, evaluate, translate, and disseminate health promotion prevention and interventions conducted in traditional and non-traditional settings.

**End-of-Life and Palliative Needs of Adolescents and Young Adults (AYA) with Serious Illnesses (R21 Clinical Trial Optional)**

Funding Opportunity PA-18-155 from the NIH Guide for Grants and Contracts. The purpose of this funding opportunity announcement (FOA) is to foster research on the unique perspectives, needs, wishes, and decision-making processes of adolescents and young adults (AYA; defined by the World Health Organization and the Centers for Disease Control and Prevention as youth between 12-24 years of age) with serious, advanced illnesses; and research focused on specific end-of-life/palliative care (EOLPC) models that support the physical, psychological, spiritual, and social needs of AYA with serious illness, their families and caregivers.

**Personalized Strategies to Manage Symptoms of Chronic Illness (R21 Clinical Trial Optional)**

Funding Opportunity PA-18-156 from the NIH Guide for Grants and Contracts. The purpose of this initiative is to encourage interdisciplinary research to decrease symptom burden and enhance health-related quality of life (HRQL) in persons with chronic illness through a) increasing knowledge of the biological mechanisms of
symptoms and b) promoting innovative, cost-effective, targeted interventions to prevent, manage or ameliorate these symptoms.

**Innovative Questions in Symptom Science and Genomics (R21 Clinical Trial Optional)**
Funding Opportunity PA-18-157 from the NIH Guide for Grants and Contracts. This initiative seeks to optimize innovation, insight and cutting edge conceptual and technological breakthroughs by catalyzing research that emanates from the identified innovative questions in symptom and genomic nursing science. These innovative questions are reflective of broad domains from which more specific novel hypotheses or problems to be solved can be derived.

**Applying Metabolomics to Drive Biomarker Discovery in Symptom Science (R21 Clinical Trial Optional)**
Funding Opportunity PA-18-158 from the NIH Guide for Grants and Contracts. The purpose of this funding opportunity announcement is to encourage applications on biomarker discovery that utilize metabolomics approaches to advance the understanding, assessment and management of symptoms.

**Mechanisms, Models, Measurement, and Management in Pain Research (R21 Clinical Trial Optional)**
Funding Opportunity PA-18-159 from the NIH Guide for Grants and Contracts. The purpose of this Funding Opportunity Announcement (FOA) 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 injury 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.

Environmental Exposures and Health: Exploration of Non-Traditional Settings (R21 Clinical Trial Optional)
Funding Opportunity PA-18-160 from the NIH Guide for Grants and Contracts. The purpose of this funding opportunity announcement (FOA) is to encourage interdisciplinary research aimed at promoting health, preventing and limiting symptoms and disease, and reducing health disparities across the lifespan for those living or spending time in non-traditional settings (i.e. playgrounds and nursing homes). These settings result in exposure to environmental pollutants and toxins that result in health risks, symptoms, and other health conditions/diseases; including lower respiratory disease, chronic obstructive pulmonary disease, cardiovascular disease, and complex environmental exposures that may be exacerbated by non-chemical stressors encountered in community settings, physiological function of organs and systems of the fetus/child/adolescence, and lower respiratory disease. Risk identification and symptom management include prevention and behavior changes and actions to maintain health and prevent disease with an emphasis on the individual, family, and
community which will advance
nursing science. For purposes
of this FOA, non-traditional
settings include, but are not
limited to, places such as
community centers; pre-school
and non-traditional school
environments (e.g., churches,
daycare, home-based schools,
dormitories, alternative schools,
and playgrounds); child and
older adult foster care facilities;
older adult day care facilities;
half-way homes; and assisted
living and long-term care
facilities.

Symptom Management in
HIV-Infected Individuals with
Comorbid Conditions (R21
Clinical Trial Optional)
Funding Opportunity PA-18-161
from the NIH Guide for Grants
and Contracts. The FOA invites
research applications focused
on developing, adapting and
testing innovative cost-effective
strategies to prevent, identify
and manage symptoms of
HIV-associated Non-AIDS
conditions (HANA) and other
comorbidities among older
adults with prolonged HIV
infection.

Health Promotion Among Racial
and Ethnic Minority Males (R21
Clinical Trial Optional)
Funding Opportunity PA-18-162
from the NIH Guide for Grants
and Contracts. This initiative
seeks applications that propose
to stimulate and expand
research in the health of
minority men. Specifically, this
initiative is intended to: 1)
enhance our understanding of
the numerous factors (e.g.,
sociodemographic, community,
societal, personal) influencing
the health promoting behaviors
of racial and ethnic minority
males across the life cycle, and
2) encourage applications
focusing on the development
and testing of culturally and
linguistically appropriate
health-promoting interventions
designed to reduce health
disparities among racially and
ethnically diverse males age 18
and older.

Use of Technology to Enhance
Patient Outcomes and Prevent
Illness (R21 Clinical Trial...
Optional) Funding Opportunity PA-18-163 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) seeks clinical research focused on the development and utilization of technologies that can help address patient outcomes. Relevant areas of technology include remote healthcare delivery to patients via telehealth, robotics to enhance medication adherence, on-site (e.g., clinical or home setting) care delivery, mobile health to increase access and adherence, web-based decision support tools, and others. Research projects may focus on assessment, diagnosis, intervention development, or intervention implementation. Research projects that a) incorporate emerging and cutting edge technologies to explain and predict patient trajectories, b) inform interventions, c) support real-time clinical decision making, and d) facilitate effective long-term management of chronic illness are especially needed. Critical to this FOA, proposed research should identify specific patient outcomes expected to improve from technological approaches. The specific tools or interventions proposed should clearly indicate how they will enhance patient benefits in environments, such as clinical settings, and/or in the home and community.

Self-Management Interventions and Technologies to Sustain Health and Optimize Functional Capabilities (R21 Clinical Trial Optional)

Funding Opportunity PA-18-164 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) seeks clinical research on self-management interventions and technologies that improve health and quality of life in persons needing assistance to optimize and maintain existing functional capabilities, prevent/delay disabilities and navigate their
environment. The research focus encompasses maintenance/restorative care that can be tailored to individuals existing functional abilities and interests and is intended to enhance physical, sensory, motor, and mental capabilities. Of particular interest is research designed to maintain functional capabilities in such conditions as cardiac and respiratory insufficiency, movement impairment associated with arthritis, chronic back pain, stroke, and other physical or cognitive disabilities.

**Addressing Unmet Needs in Persons with Dementia to Decrease Behavioral Symptoms and Improve Quality of Life (R21 Clinical Trial Optional)**

Funding Opportunity PA-18-165 from the NIH Guide for Grants and Contracts. The purpose of this funding opportunity announcement (FOA) is to stimulate clinical research addressing behavioral and psychological symptoms of dementia (BPSD) and the association of BPSD with unmet physical, social, or environmental needs in persons with dementia.

**Improving Individual and Family Outcomes through Continuity and Coordination of Care in Hospice (R21 Clinical Trial Optional)**

Funding Opportunity PA-18-166 from the NIH Guide for Grants and Contracts. This funding opportunity announcement (FOA) seeks to stimulate research that focuses on reducing negative individual and family outcomes related to unwanted transitions at the end of life and optimizing the individual and family outcomes related to high quality coordination of care of care of individuals who are enrolled in hospice. This FOA emphasizes individuals who are receiving hospice care and their family caregivers, in any setting where hospice care is provided, including their home, a relatives home, a hospice inpatient facility, an assisted living facility, a short- or long-term care facility, or a hospital.
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<tr>
<th><strong>Palliative Care Needs of Individuals with Rare Advanced Diseases and Their Family Caregivers (R21 Clinical Trial Optional)</strong></th>
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<td>Funding Opportunity PA-18-167 from the NIH Guide for Grants and Contracts. This funding opportunity announcement (FOA) seeks to expand knowledge and increase the evidence base for palliative care (PC) in advanced rare diseases, including rare cancers, and to improve physical and psychosocial well-being and quality of life among seriously ill individuals and their family caregivers.</td>
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<th><strong>Chronic Condition Self-Management in Children and Adolescents (R21 Clinical Trial Optional)</strong></th>
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<td>Funding Opportunity PA-18-168 from the NIH Guide for Grants and Contracts. The purpose of this Funding Opportunity Announcement (FOA) is to encourage exploratory/developmental research to improve self-management and quality of life in children and adolescents with chronic conditions. Managing a chronic condition is an unremitting responsibility for children and their families. Children with a chronic condition and their families have a long-term responsibility for self-management. This FOA encourages research that takes into consideration various factors that influence self-management such as individual differences, biological and psychological factors, family/caregivers and sociocultural context, family-community dynamics, healthcare system factors, technological advances, and the role of the environment.</td>
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<th><strong>Reducing Health Disparities Among Minority and Underserved Children (R21 Clinical Trial Optional)</strong></th>
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<td>Funding Opportunity PA-18-169 from the NIH Guide for Grants and Contracts. This initiative encourages research that targets the reduction of health disparities among children. Investing in early childhood</td>
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development is essential. Specific targeted areas of research include bio-behavioral studies that incorporate multiple factors that influence child health disparities such as biological (e.g., genetics, cellular, organ systems), lifestyle factors, environmental (e.g., physical and family environments) social (e.g., peers), economic, institutional, and cultural and family influences; studies that target the specific health promotion needs of children with a known health condition and/or disability; and studies that test, evaluate, translate, and disseminate health promotion prevention and interventions conducted in traditional and non-traditional settings.

**Human Studies to Evaluate Promising Medications to Treat Alcohol Use Disorder (R01 Clinical Trial Required)**
Funding Opportunity PA-18-192 from the NIH Guide for Grants and Contracts. The objective of this Funding Opportunity Announcement (FOA) is to encourage applications that use human laboratory paradigms and/or clinical trials to evaluate the safety and efficacy of novel or re-purposed compounds, that bind to new targets, for treatment of alcohol use disorder (AUD) or AUD with a comorbid post-traumatic stress disorder.

**Screening and Brief Alcohol Interventions in Underage and Young Adult Populations (R01 Clinical Trial Optional)**
Funding Opportunity PA-18-193 from the NIH Guide for Grants and Contracts. The objective of this Funding Opportunity Announcement (FOA) is to encourage research on screening and brief interventions to prevent and/or reduce alcohol use and alcohol-related harms among underage and young adult populations.

**Alcohol Use Disorders: Behavioral Treatment, Services and Recovery Research (R01 Clinical Trial Optional)**
Funding Opportunity PA-18-194
from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) encourages grant applications from institutions/organizations that propose to support research on behavioral treatment for alcohol use disorders; organizational, financial, and management factors that facilitate or inhibit the delivery of services for alcohol use disorders; and phenomenon of recovery from alcohol use disorders.

### Human Studies to Evaluate Promising Medications to Treat Alcohol Use Disorder (R21 Clinical Trial Required)
Funding Opportunity PA-18-197 from the NIH Guide for Grants and Contracts. The objective of this Funding Opportunity Announcement (FOA) is to encourage applications that use human laboratory paradigms and/or clinical trials to evaluate the safety and efficacy of novel or re-purposed compounds, that bind to new targets, for treatment of alcohol use disorder (AUD) or AUD with a comorbid post-traumatic stress disorder.

### Human Studies to Evaluate Promising Medications to Treat Alcohol Use Disorder (R03 Clinical Trial Required)
Funding Opportunity PA-18-198 from the NIH Guide for Grants and Contracts. The objective of this Funding Opportunity Announcement (FOA) is to encourage applications that use human laboratory paradigms and/or clinical trials to evaluate the safety and efficacy of novel or re-purposed compounds, that bind to new targets, for treatment of alcohol use disorder (AUD) or AUD with a comorbid post-traumatic stress disorder.

### Screening and Brief Alcohol Interventions in Underage and Young Adult Populations (R21 Clinical Trial Optional)
Funding Opportunity PA-18-199 from the NIH Guide for Grants and Contracts. The objective of this Funding Opportunity Announcement (FOA) is to encourage research on...
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<th>Funding Opportunity</th>
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<td><strong>Screening and Brief Alcohol Interventions in Underage and Young Adult Populations (R03 Clinical Trial Optional)</strong></td>
<td>Funding Opportunity PA-18-200 from the NIH Guide for Grants and Contracts. The objective of this Funding Opportunity Announcement (FOA) is to encourage research on screening and brief interventions to prevent and/or reduce alcohol use and alcohol-related harms among underage and young adult populations.</td>
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<tr>
<td><strong>Alcohol Use Disorders: Behavioral Treatment, Services and Recovery Research (R03 Clinical Trial Optional)</strong></td>
<td>Funding Opportunity PA-18-201 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) encourages grant applications from institutions/organizations that propose to support research on behavioral treatment for alcohol use disorders; organizational, financial, and management factors that facilitate or inhibit the delivery of services for alcohol use disorders; and phenomenon of recovery from alcohol use disorders.</td>
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<td><strong>Alcohol Use Disorders: Behavioral Treatment, Services and Recovery Research (R21 Clinical Trial Optional)</strong></td>
<td>Funding Opportunity PA-18-202 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) encourages grant applications from institutions/organizations that propose to support research on behavioral treatment for alcohol use disorders; organizational, financial, and management factors that facilitate or inhibit the delivery of services for alcohol use disorders; and phenomenon of recovery from alcohol use disorders.</td>
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**The Health of Sexual and Gender**
Minority (SGM) Populations (R15 Clinical Trial Optional)
Funding Opportunity PA-18-210 from the NIH Guide for Grants and Contracts. The National Institutes of Health (NIH) is committed to supporting research that will increase scientific understanding of the health status of diverse population groups and thereby improve the effectiveness of health interventions and services for individuals within those groups. Priority is placed on understudied populations with distinctive health risk profiles. This funding opportunity announcement (FOA) focuses on sexual and gender minority (SGM) populations, including lesbian, gay, bisexual, transgender, and intersex populations. Basic, social, behavioral, clinical, and services research relevant to the missions of the sponsoring Institutes and Centers may be proposed.

NIMH Exploratory/Developmental Research Grant (R21 - Clinical Trial Not Allowed)
Funding Opportunity PA-18-350 from the NIH Guide for Grants and Contracts. The NIMH Exploratory/Developmental Grant program supports exploratory and high-risk research projects that fall within the NIMH mission by providing support for the early and conceptual stages of these projects. These studies may involve considerable risk but may lead to a breakthrough or to the development of novel techniques, agents, methods, measures, models, or strategies, or to the generation of pilot or feasibility data. The preliminary work from these studies could lead to a major impact on biomedical, behavioral, or clinical mental health research, or on the delivery of mental health care.

Human Subjects Mechanistic and Minimal Risk Studies (R01 Clinical Trial Optional)
Funding Opportunity PA-18-351 from the NIH Guide for Grants and Contracts. The purpose of this FOA is to encourage
applications that seek to conduct studies of the visual system. This FOA will support applications that either Those that involve human subjects, but are not NIH-defined clinical trials (see NOT-OD-15-015); or Those that are NIH-defined clinical trials and are designed to address either: 1) mechanisms underlying human vision in health and disease; or 2) interventions that entail procedures with minimal risk to subjects. A mechanistic trial is defined as "A study designed to understand a biological or behavioral process, the pathophysiology of a disease, or the mechanism of action of an intervention. "Minimal risk" means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. NIH-defined clinical trial applications that are neither mechanistic nor minimal risk are not eligible for this FOA. Large-scale clinical trials, human gene-transfer and stem cell therapy trials, and other complex or high resource- or safety-risk clinical trials are not appropriate for this FOA. Applicants are strongly advised to consult with NEI program staff prior to submitting an application with human subjects to determine the appropriate funding opportunity.

Linking the Provider Recommendation to Adolescent HPV Vaccine Uptake (R01 Clinical Trial Optional)
Funding Opportunity PAR-18-008 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) encourages research on how the healthcare delivery system enhances or inhibits the effectiveness of a provider's recommendation of the adolescent human papillomavirus (HPV) vaccine. Characteristics of the provider, parent/patient, and clinical
setting, can all affect whether a provider makes a recommendation, and whether that recommendation results in uptake of the HPV vaccine. This research requires expertise in cancer prevention, adult and childhood behavior, immunization promotion, and healthcare delivery.

**Early Phase Clinical Trials in Imaging and Image-Guided Interventions (R01 Clinical Trial Required)**

Funding Opportunity PAR-18-011 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) is intended to support clinical trials conducting preliminary evaluation of the safety and efficacy of imaging agents, as well as an assessment of imaging systems, image processing, image-guided planning and/or execution therapy, contrast kinetic modeling, 3-D reconstruction and other quantitative tools. As many such preliminary evaluations are early in development, this FOA will provide investigators with support for pilot (Phase I and II) cancer imaging clinical trials, including patient monitoring and laboratory studies. This FOA supports novel uses of known/standard clinical imaging agents and methods as well as the evaluation of new agents, systems, or methods. The imaging and image-guided intervention (IGI) investigations, if proven successful in these early clinical trials, can then be validated in larger studies through competitive R01 mechanisms, or through clinical trials in the Specialized Programs of Research Excellence (SPOREs), Cancer Centers and/or the NCI's National Clinical Trials Network.

**Linking the Provider Recommendation to Adolescent HPV Vaccine Uptake (R21 Clinical Trial Optional)**

Funding Opportunity PAR-18-019 from the NIH Guide for Grants and Contracts. This Funding Opportunity
Announcement (FOA) encourages research on how the healthcare delivery system enhances or inhibits the effectiveness of a provider’s recommendation of the adolescent human papillomavirus (HPV) vaccine. Characteristics of the provider, parent/patient, and clinical setting, can all affect whether a provider makes a recommendation, and whether that recommendation results in uptake of the HPV vaccine. This research requires expertise in cancer prevention, adult and childhood behavior, immunization promotion, and healthcare delivery.

**Research on Informal and Formal Caregiving for Alzheimer’s Disease (R01 Clinical Trial Optional)**

Funding Opportunity PAR-18-027 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) invites applications for basic and translational research on caregiving for individuals with Alzheimer’s disease (AD), at the individual, family, community, and population level. The scope of this funding opportunity includes support for applications that propose the following: interventions to reduce caregiver burden and improve patient outcomes across various settings; population- and community-based research on the scope and impact of AD caregiving; improved characterization of informal and formal caregiving and the burden of caregiving across the full spectrum of the disease, including differences among socioeconomic, racial/ethnic and geographic sub-populations; and research addressing the unique challenges related to the provision of advanced AD care, including disparities in access to care.

**Metabolic Contributions to the Neurocognitive Complications of Diabetes: Ancillary Studies (R01 Clinical Trial Optional)**
Funding Opportunity
This Funding Opportunity Announcement (FOA) invites applications for human studies to elucidate the etiology and pathogenesis of the increased risk for neurocognitive impairment associated with type 2 diabetes.

Mechanism for Time-Sensitive Drug Abuse Research (R21 Clinical Trial Optional)
Funding Opportunity
This Funding Opportunity Announcement (FOA) will support pilot, feasibility or exploratory research in 5 priority areas in substance use epidemiology and health services, including: 1) responses to sudden and severe emerging drug issues (e.g. the ability to look into a large and sudden spike in synthetic cannabinoid use/overdoses in a particular community); 2) responses to emerging marijuana trends and topics related to the shifting policy landscape; 3) responses to unexpected and time-sensitive prescription drug abuse research opportunities (e.g., new state or local efforts); 4) responses to unexpected and time-sensitive medical system issues (e.g. opportunities to understand addiction services in the evolving health care system); and 5) responses to unexpected and time-sensitive criminal or juvenile justice opportunities (e.g. new system and/or structural level changes) that relate to drug abuse and access and provision of health care service. It should be clear that the knowledge gained from the proposed study is time-sensitive and that an expedited rapid review and funding are required in order for the scientific question to be answered.

Research to Advance the Understanding and Management of the Multiple Organ Dysfunction Syndrome in
The purpose of this funding opportunity announcement (FOA) is to establish a program of research to advance the understanding, prevention and treatment of pediatric multiple organ dysfunction syndrome (MODS). Given the prevalence and associated morbidity and mortality of MODS in children, the current lack of understanding underscores the need for more basic, exploratory and longitudinal research. Possible topics of study include, but are not limited, to the epidemiology, pathophysiology, monitoring, and treatment of MODS. Studies that assess specific etiologies associated with MODS including, but not limited to, sepsis, trauma, acute respiratory distress syndrome, inborn errors of metabolism, burns, cancer, transplantation and congenital heart disease are encouraged. Applications may include any appropriate study designs ranging from basic science and animal models through prospective randomized controlled trials. It is hoped that as a result of research supported through this funding opportunity, outcomes will improve both in terms of the prevention and treatment of MODS in children.

The purpose of this funding opportunity is to establish a program of research to advance the understanding, prevention and treatment of pediatric multiple organ dysfunction syndrome (MODS). Given the prevalence and associated morbidity and mortality of MODS in children, the current lack of understanding underscores the need for more basic, exploratory and longitudinal research. Possible topics of study include, but are not limited, to the epidemiology, pathophysiology, monitoring, and treatment of MODS. Studies that assess specific etiologies associated with MODS including, but not limited to, sepsis, trauma, acute respiratory distress syndrome, inborn errors of metabolism, burns, cancer, transplantation and congenital heart disease are encouraged. Applications may include any appropriate study designs ranging from basic science and animal models through prospective randomized controlled trials. It is hoped that as a result of research supported through this funding opportunity, outcomes will improve both in terms of the prevention and treatment of MODS in children.
underscores the need for more exploratory research. The intent of this R21 funding initiative is to encourage exploratory and developmental research projects by providing support for the early and conceptual stages of research projects addressing these topics. These studies may incur considerable research risk in efforts to make important breakthroughs in the understanding, prevention and treatment of MODS in children. Projects of limited cost or scope that use widely accepted approaches and methods within well-established fields are better suited for the R03 small grant activity code. It is hoped that the results of this exploratory research will translate into improved clinical outcomes for children with, and at risk for MODS.

**Research to Advance the Understanding and Management of the Multiple Organ Dysfunction Syndrome in Children (R03 Clinical Trial Optional)**
Funding Opportunity PAR-18-095 from the NIH Guide for Grants and Contracts. The purpose of this funding opportunity is to advance the understanding, prevention and treatment of pediatric multiple organ dysfunction syndrome (MODS). Given the prevalence and associated morbidity and mortality of MODS in children, the current lack of understanding underscores the need for more research of all types. It is hoped that this research will inform subsequent R01 applications, and ultimately translate into improved outcomes for children with MODS, both in terms of prevention and treatment.

**Selected Topics in Transfusion Medicine (R01 Clinical Trial Optional)**
Funding Opportunity PAR-18-126 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) encourages research grant applications from investigators who propose to study research topics in blood banking and
transfusion medicine aimed at improving the safety and availability of the blood supply and the practice of transfusion medicine. Research focused on improving blood donor health, the safety and availability of blood products, and improving the practice of transfusion medicine is critical to public health. Research designed to better understand the determinants of transfusion-associated adverse events and how best to minimize transfusion risks is also important. Research is also needed to maintain an adequate blood supply by minimizing the risks associated with the donation process and developing enhanced recruitment and retention programs.

**Selected Topics in Transfusion Medicine (R21 Clinical Trial Optional)**

Funding Opportunity PAR-18-132 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) encourages research grant applications from investigators who propose to study research topics in blood banking and transfusion medicine aimed at improving the safety and availability of the blood supply and the practice of transfusion medicine. Research focused on improving blood donor health, the safety and availability of blood products, and improving the practice of transfusion medicine is critical to public health. Research designed to better understand the determinants of transfusion-associated adverse events and how best to minimize transfusion risks is also important. Research is also needed to maintain an adequate blood supply by minimizing the risks associated with the donation process and developing enhanced recruitment and retention programs.

**Alzheimer's Drug-Development Program (U01 Clinical Trial Optional)**
Funding Opportunity PAR-18-174 from the NIH Guide for Grants and Contracts. The goal of this Funding Opportunity Announcement (FOA) is to provide funding support for the pre-clinical and early stage clinical (Phase I) development of small-molecule and biologic therapeutic agents that prevent Alzheimer’s disease (AD), slow its progression or treat its cognitive and behavioral symptoms. Participants in this program will receive funding for therapy development activities such as medicinal chemistry, pharmacokinetics (PK), Absorption, Distribution, Metabolism, Excretion, Toxicology (ADMET), efficacy in animal models, formulation development, chemical synthesis under Good Manufacturing Practices (GMP), Investigational New Drug (IND) enabling studies and initial Phase I clinical testing. This program does not support research on basic mechanisms of disease, development of biomarkers, devices, non-pharmacological interventions (e.g., exercise, diet, cognitive training), repurposed drugs and combinations therapies or, discovery activities such as high throughput screening and hit optimization.

Research on Informal and Formal Caregiving for Alzheimer’s Disease (R21 Clinical Trial Optional)
Funding Opportunity PAR-18-179 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) invites applications for basic and translational research on caregiving for individuals with Alzheimer’s disease (AD), at the individual, family, community, and population level. The scope of this funding opportunity includes support for applications that propose the following: early-stage development of interventions to reduce caregiver burden and improve patient outcomes across various settings;
population- and community-based research on the scope and impact of AD caregiving; improved characterization of informal and formal caregiving and the burden of caregiving across the full spectrum of the disease, including differences among socioeconomic, racial/ethnic and geographic sub-populations; and research addressing the unique challenges related to the provision of advanced AD care, including disparities in access to care.

Bioengineering Research Grants (BRG) (R01 Clinical Trial Optional)
Funding Opportunity PAR-18-206 from the NIH Guide for Grants and Contracts. The purpose of this funding opportunity announcement is to encourage collaborations between the life and physical sciences that: 1) apply a multidisciplinary bioengineering approach to the solution of a biomedical problem; and 2) integrate, optimize, validate, translate or otherwise accelerate the adoption of promising tools, methods and techniques for a specific research or clinical problem in basic, translational, or clinical science and practice. An application may propose design-directed, developmental, discovery-driven, or hypothesis-driven research and is appropriate for small teams applying an integrative approach to increase our understanding of and solve problems in biological, clinical or translational science.

Bioengineering Research Partnerships (U01 Clinical Trial Optional)
Funding Opportunity PAR-18-208 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) encourages bioengineering applications that will accelerate the development and adoption of promising tools and technologies that can address important biomedical
problems. The objectives are to establish these tools and technologies as robust, well-characterized solutions that fulfill an unmet need and are capable of enhancing our understanding of life science processes or the practice of medicine. Awards will focus on supporting multidisciplinary teams that apply an integrative, quantitative bioengineering approach to developing technologies, and engage biomedical researchers or clinicians throughout the project. The goal of the program is to support projects that can realize meaningful solutions within 5-10 years.

**Transition to Independent Environmental Health Research (TIEHR) Career Transition Award (K01 Clinical Trial Required)**
Funding Opportunity PAR-18-261 from the NIH Guide for Grants and Contracts. The Transitions to Independent Environmental Health (TIEHR) Career Award is a 3-year bridge scholar development program for newly independent faculty who intend to pursue research careers in environmental health sciences. At the conclusion of the career development period the candidates are expected to demonstrate they can successfully compete for research funding in the environmental health sciences.

**Transition to Independent Environmental Health Research (TIEHR) Career Transition Award (K01 Clinical Trial Not Allowed)**
Funding Opportunity PAR-18-291 from the NIH Guide for Grants and Contracts. The Transitions to Independent Environmental Health (TIEHR) Career Award is a 3-year bridge scholar development program for newly independent faculty who intend to pursue research careers in environmental health sciences. At the conclusion of the career development period the candidates are expected to demonstrate they can successfully compete for research funding in the environmental health sciences.

**Short-term Mentored Career**
Enhancement Awards for Mid-Career Investigators to Integrate Basic Behavioral and Social Sciences (K18 - No Independent Clinical Trials)

Funding Opportunity
PAR-18-349 from the NIH Guide for Grants and Contracts. This Funding Opportunity Announcement (FOA) encourages applications for short-term mentored career development (K18) awards that improve synergies among researchers in basic and applied behavioral-social sciences, human subjects and model animals settings; and biomedical and behavioral-social sciences.