SESSION 1125 (SYMPOSIUM)

THE NUTS AND BOLTS OF NIH PEER REVIEW: THE CENTER FOR SCIENTIFIC REVIEW
Chair: Elia Femia, National Institutes of Health, Bethesda, Massachusetts, United States
Co-Chair: Dana Plude, National Institute on Aging/National Institutes of Health, Bethesda, Maryland, United States
Discussant: George W. Rebok, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States

The National Institutes of Health is the largest public funder of biomedical and bio-behavioral research in the United States. The mission is to enhance health, lengthen life, and reduce illness and disability. To achieve this mission, the NIH provides support for cutting-edge research and technology development in a variety of fields, ranging from translation of innovative ideas in technology to basic science on major health challenges and disease. There are many types of research and training opportunities and technology development programs that are supported by the NIH across the 24 institutes and centers that provide funding. The majority of grant applications are reviewed by the NIH Center for Scientific Review (CSR). In this symposium, attendees will get 1) an overview of the types of applications submitted to the NIH for support; 2) the basics of the NIH peer review process and criteria and scoring system for evaluating applications, and 3) tips for writing a more successful grant application. Peer review is the cornerstone of the NIH grants process, and an insider’s view can lead to a better understanding of how the most meritorious projects are identified that lead to innovative re-search in the biomedical and bio-behavioral sciences.

THE REVIEW PROCESS AND TAKING STEPS TOWARD A SUCCESSFUL APPLICATION
Elia Femia,1 and Dana Plude2. 1. National Institutes of Health, Bethesda, Massachusetts, United States, 2. National Institute on Aging, Bethesda, Maryland, United States

Applications reviewed by the Center for Scientific Review go through a process that starts with assignment to a review panel and ends with the assignment of a priority score and the production of a written evaluation (summary statement). This process is overseen by a Scientific Review Officer, who enlists expert reviewers to evaluate the scientific and technical merit, and the potential contribution and impact of the application to the research field. The goal is to ensure that applications are expertly and fairly evaluated in accordance to the NIH policies of rigor, reproducibility, transparency, and research integrity. In this presentation, learn about the criteria for review of an application, how reviewers shape their evaluation, and what applicants should be addressing in their grant applications. From the field, hear tips from successful applicants and experienced reviewers about what they do and what they look for in a well-written application.

TYPES OF APPLICATIONS AND PUTTING YOUR BEST FOOT FORWARD
Dana Plude,1 Dana Plude,2 and Elia Femia1, 1. National Institute on Aging/National Institutes of Health, Bethesda, Maryland, United States, 2. National Institute on Aging, Bethesda, Maryland, United States, 3. National Institutes of Health, Bethesda, Maryland, United States

The majority of peer review is conducted through the NIH Center for Scientific Review (CSR), which works closely with the institutes and centers who ultimately fund projects of high scientific merit and high potential impact. CSR conducts the review of 90% of R01s, 85% of Fellowships, and 95% of SBIR applications as well as many other research and training opportunity activities. The playing field for successful funding from NIH is highly competitive. Understanding about different application types, who to talk to about your application, finding the right review panel, and learning about the policies pertaining to review are important steps in preparing an application. In this presentation, learn about the important aspects of the grant submission process and how CSR conducts the review of application in close coordination with NIH’s 24 institutes and centers.

SESSION 1130 (SYMPOSIUM)

PRESIDENTIAL SYMPOSIUM: THE TIES THAT BIND: THE INFLUENCE OF SOCIAL MEDIA AND TECHNOLOGY IN THE LIVES OF OLDER ADULTS
Chair: Tamara A. Baker, University of Kansas, Lawrence, Kansas, United States
Discussant: Lewina O. Lee, Boston University School of Medicine, Boston, Massachusetts, United States

Data show that seven out of every ten adults, over the age of 50, own a smartphone, with one out of ten owning a tablet. While traditional activities dictate the use of technology among this cohort, there is growing evidence that adults similarly use devices to also manage their medical care and to learn online. This increase has guided scholars in recognizing the utility of technology from designing interventions to understanding how technology may serve as a barrier and/or facilitator to one’s general well-being. This symposium features four presentations from nationally recognized scholars that will expand traditional perspectives on technology use, and how it influences social ties among older adults. Dr. Charness will examine the population-level trends in social network use by aging adults and discuss a recent CREATE intervention study (PRISM), that used a computer-based platform to reduce social isolation and loneliness among older adults. Dr. Czaja will similarly present findings from CREATE, and other trials, on the access to and use of email, social media sites, and online support groups among older adults, and the resultant impact on social connectivity, loneliness and social support. Dr. Rogers will discuss technologies that currently exist (e.g., apps, mobile devices, social networking) or are being developed (e.g., robotics, telepresence, virtual reality) to support social engagement. Dr. Antonucci will examine aspects of new technologies and their influence on health and well-being, while underscoring the perspective that new and emerging technologies hold great promise in overcoming traditional barriers to maintaining social contact and exchange.

THE ROLE OF SOCIAL MEDIA NETWORKS FOR AGING ADULTS: PANACEA, PLAGUE, OR BEEN THERE, DONE THAT?
Neil H. Charness1, 1. Florida State University, Tallahassee, Florida, United States

GSA 2019 Annual Scientific Meeting
Billions of people around the world rely on (or are addicted to) technology-based social networks such as Facebook. At first glance, particularly for aging adults with mobility challenges, internet-based networking seems like a panacea. At second glance, navigating through the thicket of ‘bots’, fraudsters and “fake friends” may turn out to be a plague. At third glance, technology-based interaction platforms are not that new (telegraph, telephone) and not that unusual. I examine the population-level trends in social network use by aging adults and discuss a recent CREATE intervention study, PRISM, that used a computer-based platform to try to reduce social isolation and loneliness in older adults at risk for social isolation.

OLDER PEOPLE AND TECHNOLOGY: THE GOOD, THE BAD, AND THE UGLY
Toni C. Antonucci1, 1. University of Michigan, Ann Arbor, Michigan, United States

The use of multiple technologies in the service of social relations in widely evident. It is not at all clear, however, that we recognize the fundamental changes in social relations that are occurring as a result. Some changes are quite positive, e.g., low cost maintenance of geographically distant but emotionally close relationships. Others can be quite negative, e.g., the lost ability to gauge emotional reactions through face-to-face contact, often resulting in unnecessarily hurtful behaviors. Preliminary data indicate that people selectively use different forms of communication under positive circumstances, e.g., to transmit good news; or negative circumstances, e.g., resolve a dispute/express anger and dependent on the nature or closeness of the relationship e.g., parent, spouse, child. We need to be mindful of the good, the bad, and the ugly of technology; and, its specific effect on the relationships of and with older people.

TECHNOLOGY DESIGN TO SUPPORT SOCIAL ENGAGEMENT FOR OLDER ADULTS
Wendy Rogers1, 1. University of Illinois, Urbana-Champaign, Champaign, Illinois, United States

Evidence that loneliness and isolation are precursors to myriad negative health issues is accumulating. For older adults, social engagement may be particularly important due to life-changing events that can accompany older adulthood, including retirement, disease, or mobility limitations. Individuals vary in their levels of social engagement, and these differences may have consequential effects on quality of life. Technology has the potential to create and enhance social engagement opportunities for older adults at risk for social isolation. For such technology innovations to be effective and widely adopted, designers must consider the unique needs, capabilities, limitations, and preferences of older adults. I will describe technologies that currently exist (e.g., apps, mobile devices, social networking) or are being developed (e.g., robotics, telepresence, virtual reality) to support social engagement, connectedness, and community participation. I will discuss the potential of these technologies as well as the design and training challenges unique to older adults.

SOCIAL ISOLATION AND OLDER ADULTS: WHAT ROLE CAN TECHNOLOGY PLAY?
Sara J. Czaja1, 1. Weill Cornell Medicine, New York, New York, United States

Social isolation and loneliness are prevalent among older adults especially those who live in rural locations, have mobility restrictions, are in the older cohorts, live alone or live in residential institutions such as assisted living facilities or nursing homes. The detrimental consequences of isolation and loneliness on physical, cognitive, and emotional health are well documented. Technology applications such as the email, social media sites and online support groups hold promise in terms of enhancing engagement and providing support to older people and mitigating the negative impact of isolation and enhancing quality of life. Recent data indicate that use of these types of applications is increasing among older adults but there is still an age-related digital divide. This presentation will present findings from CREATE and other trials regarding the access to and use of these applications among older adults and the resultant impact on the social connectivity, loneliness and social support.

SESSION 1135 (SYMPOSIUM)

VACCINATION TO PROMOTE HEALTH THROUGHOUT LIFE AS A HEALTHY AGING STRATEGY
Chair: Leonard Friedland, GSK Vaccines, Philadelphia, Pennsylvania, United States

This symposium addresses the role of vaccination to promote healthy aging, the process of developing and maintaining the functional ability that enables wellbeing in older age. Life-span immunization of adults across all age categories can help to reduce morbidity and mortality. Healthy aging is critical for our global society to counter the surge in healthcare costs that is coming as a result of the demographic shift to older age. Immune system function and response to vaccination declines with advancing age. Generating effective immune responses against new infectious disease targets can be difficult in older individuals. Important progress has been made in understanding the mechanisms underlying immunosenescence, the age-related decline of the immune response to infections and vaccinations. Innovative research and the development of new technologies, such as adjuvants, substances that can enhance and shape the immune response to the target antigen(s), has facilitated the development of vaccines specially tailored for adults. This evidence-based approach to the development of innovative vaccines addressing immunosenescence is an important clinically relevant healthy aging strategy to promote health throughout life.

ADJUVANTED VACCINES TO ADDRESS IMMUNOSENESCENCE AND PROMOTE HEALTH THROUGHOUT LIFE
Leonard Friedland1, 1. GSK Vaccines, Philadelphia, Pennsylvania, United States

Immunosenescence creates a challenge in developing vaccines tailored for older adults. Recent advances in immunology, molecular biology and systems vaccinology have enabled greater understanding of the innate and adaptive immune mechanisms behind vaccine responses in adults. Novel approaches to vaccine design for this population include adjuvant technology. New knowledge and accumulating experience enables evidence-based selection of the right antigen and