

Pepper OAIC & Contact	What are the specialty foci or expertise areas of your Center in which an exchange scholar could receive career development as described above?	Please describe exemplar experiences you could imagine providing to a visiting scholar for a short (2-3 day) visit.	Please describe exemplar experiences you could imagine providing to a visiting scholar for a longer (2-3 week) visit.
<p>Duke University Point of Contact: Kenneth Schmader kenneth.schmader@duke.edu</p>	<p>Our focus is understanding and optimizing reserve and resilience in older adults.</p> <p><u>The Molecular Measures Core (MMC)</u> can offer hands on training in molecular measures including ELISA and GC mass spec analyses. <u>The Research Education Core</u> can offer individual Professional Development and intervention development guidance. <u>The Analysis Core (AC)</u> can offer guidance on statistical methodology and study design, explore potential opportunities for collaborations using databases from our own center or from the visiting scholar, and help identify potential collaborators with relevant quantitative and qualitative expertise.</p> <p><u>The Health and Mobility Measures Core (HMC)</u> can provide consultation on appropriate measures of physical function for a specific project/population, hands-on training in clinical assessments of physical performance (e.g., SPPB, 6-minute walk), consultation on wearables and technology for remotely assessing physical function, and data science approaches to characterize functional status and resilience.</p>	<p>For <u>Molecular Measures</u>, a short visit would enable a trainee to gain an appreciation of biospecimen processing and storage to maintain sample integrity, controls, and methodology for dealing with out of range high and low values for molecular measures and overall provide insights to interpreting such data in future. Individualized professional development consultation geared to the needs of the faculty member; grant writing workshops.</p> <p>For <u>Health and Mobility Measures</u>, a short visit would enable the trainee to learn the standardized procedures for assessing physical function, common obstacles encountered in clinical research, and how to use physical function scores to determine individual health (relative to population norms) and/or to inform a future intervention.</p> <p><u>Center</u> as a whole, short, 2-3 day visits with individual faculty and/or their research groups host exchange scholars who are interested in mentoring around a common interest, e.g., geroscience, cancer and aging, prescribing and deprescribing, osteoporosis, falls, osteoarthritis, sensory impairments, dementia, health services, chronic kidney disease, racial equity, exercise, metabolomics, especially as relates to resilience</p>	<p>For <u>Health and Mobility Measures</u>, a longer visit would allow the trainee to collaborate with HMC faculty to explore function-related research questions in Duke OAIC datasets for future publication, and/or receive more comprehensive training around data processing, analysis, and interpretation of objective activity monitoring. For <u>Molecular Measures</u>, a longer-term visit could be done as a collaboration-the trainee would buy kits and ship them in advance, "BYOB" - bring their own samples (ship in advance) and perform analyses on site. In addition or alternatively, the trainee could shadow laboratory researchers to interface with ongoing molecular measures analyses. It might be possible for the trainee to engage with the stats team for discussion of analytical approaches.</p> <p>The <u>REC</u> offers Intervention development consultations using the Medical Research Council/NIH Framework, as part of our weekly workshop series. Depending on the trainee area of work, grant or manuscript consultation and proofing could be offered by the Duke Pepper team on a case by case basis - based on the research field of the proposal/manuscript.</p>
<p>Johns Hopkins University Point of Contact: Brian Buta bbuta@jhu.edu</p>	<p>Foci=Frailty, resiliency, chronic inflammation, Specialty expertise available in aging biology, including mitochondrial biology, as well as in physiological stress-response systems, clinical translation, high-technology measurement (e.g. imaging, accelerometry, metabolomics), epidemiology and biostatistics of aging.</p>	<p>Day 1 - Give seminar; brief one-on-one meetings with relevant faculty; dinner Day 2 - Longer, working conversations with key faculty aimed at developing collaborations; participate in Biology of Healthy Aging workgroup meeting Day 3 - Participate in Frailty Working Group meeting; concluding discussions setting follow ups. This timeline would ideally take place from Mon-Wed during the academic year.</p>	<p>Three multi-week visit exemplars:</p> <ol style="list-style-type: none"> 1) Combined visit taking courses in JHU summer institute in epidemiology & biostatistics / conferring over research paper development. 2) Prolonged exposure to ongoing NIA-supported study on Physical Resiliency in older adults / conferring over research paper development. 3) Pursuit of core educational module around frailty including exposure to biological, epidemiological, clinical studies and methodological challenges. This could include the development of a manuscript related to frailty, its etiologies, and its potential treatments.
<p>Mount Sinai Medical Center Point of Contact: Deborah Watman Deborah.watman@mssm.edu</p>	<p>Palliative Care and CAPC Immersion, including training in various Palliative Care needs.</p>	<ol style="list-style-type: none"> 1) Attending the NPCRC with a person from Mount Sinai serving as a host. 2) Members of the Measurement, Methods and Analysis Core have experience directing numerous data coordinating centers, and can provide assistance in measure selection. 3) CAPC - Center to Advance Palliative Care: The CAPC National Seminar is brought to you by Center to Advance Palliative Care (CAPC), which provides the essential tools, training, technical assistance, and metrics to build and sustain palliative care in all health care settings. CAPC is part of the Patty and Jay Baker National Palliative Care Center, with the National Palliative Care Research Center, all part of the Brookdale Department of Geriatrics and Palliative Medicine at the Icahn School of Medicine at Mount Sinai. 4) Meet with faculty and research staff using the National Health and Aging Trends Study, the Medicare Current Beneficiary Survey, and the Health and Retirement Study to understand more about opportunities to use nationally-representative cohort studies to advance aging research. 	<p>N/A</p>

<p>Northwestern OAIC Point of Contact: Julia Yoshino Benavente, MPH julia.benavente@northwestern.edu</p>	<p>The mission of the Northwestern OAIC is to generate innovative research that will enhance primary care for medically complex, older adults with multiple chronic conditions to achieve optimal health, function, independence and quality of life.</p> <p>Specific areas of expertise include: Dissemination & implementation science, advanced care planning, antimicrobial stewardship, cardiovascular epidemiology, caregiver involvement, cognitive aging, community health, data harmonization, deprescribing, digital health, health & healthcare disparities, health literacy & health communication, health services research, leveraging of consumer & health technologies, meaningful use of electronic health records, medication safety, multi-morbidity, pragmatic trials design, patient activation, patient-reported outcomes measurement (PROMIS, NIHToolbox), polypharmacy, psychosocial determinants of health, primary care innovation, self-management science, treatment adherence.</p> <p>The Northwestern OAIC includes three resources cores that provide guidance and support regarding patient-reported outcomes measurement, technology enabled healthcare design, and comprehensive data analytics.</p>	<p>Day 1 - Deliver work-in-progress at our multidisciplinary school-wide venue (Institute for Public Health & Medicine) Introduction to availability of unique aging research datasets and collaboration opportunities, in partnership with the Resource Cores (measurement, design, analytics) Individualized faculty mentor session tailored to scholar research focus Day 2 - ‘Virtual tour’ and discussions with healthcare system clinical and administrative leadership (primary care innovation, healthcare informatics), as well as community and industry partners (Walgreens, Chicago Department of Public Health, federally qualified health center networks) Informal, virtual research poster session with current and/or former Northwestern Pepper Scholars and other geriatric junior investigators Day 3 - Meet with the Measurement Core faculty to understand how to develop, deploy, and interpret patient reported outcomes meet with Design Core faculty to gain consultation on the development and deployment of consumer and/or healthcare technologies to manage, monitor patient care identify ongoing collaborative opportunities with Northwestern Pepper Center researchers experienced in developing, optimizing, and evaluating electronic health record-based interventions to improve care In addition, other opportunities to understand how the application of behavioral science principles, including from behavioral economics and social psychology, can be applied to improve care quality.</p>	<p>Week 1 * deliver work-in-progress at our multidisciplinary schoolwide venue (Institute for Public Health & Medicine) * introduction to availability of unique aging research datasets and collaboration opportunities, in partnership with the Resource Cores (measurement, design, analytics) * individualized faculty mentor session tailored to scholar research focus * ‘virtual tour’ and discussions with healthcare system clinical and administrative leadership (primary care innovation, healthcare informatics), as well as community and industry partners (Walgreens, Chicago Department of Public Health, federally qualified health center networks) * outline an original research manuscript centered on primary care management of multiple chronic conditions leveraging existing OAIC data sources, working with appropriate Northwestern OAIC Cores and faculty Weeks 2, 3 (depending on proposed visit length) * meet with the Measurement Core faculty to understand how to develop, deploy, and interpret patient reported outcomes * meet with the Design Core faculty to gain consultation on the development and deployment of consumer and/or healthcare technologies to manage, monitor patient care * meet with the Analytics Core faculty for guidance on appropriate methods for identified manuscript * complete analyses with Northwestern team, and finalize manuscript for submission * establish a plan for continued collaboration, including maintaining communications and seeking new grant opportunities that would include both institutions</p>
<p>UCSF Point of Contact: Landon Haller Landon.Haller@ucsf.edu</p>	<p>The goal of the UCSF Pepper Center is to enhance networking opportunities by creating a tailored experience containing the following elements:</p> <ul style="list-style-type: none"> • Participation in OAIC works in progress conference (featuring the invited investigator as the speaker) • Networking lunch with researchers and faculty • Customized schedules with Geriatrics faculty designed to align with the scholar’s research passion. We aim that these conversations evolve to become opportunities for future collaboration with our Pepper Center community. 	<p>1) Participation in OAIC works in progress conference 2) Mentoring sessions with core faculty</p>	<p>Development of analysis plans, manuscripts, and grant development</p>
<p>University of Connecticut Point of Contact: Laura Masi masi@uchc.edu</p>	<p>Theme: Precision Gerontology and Geroscience - enhancing independence in older adults through interventions that are targeted, more precise and more effective by virtue of being guided by the multidimensional heterogeneity of aging. Functional Domains Addressed: Host defense/Immunology, Cognition/Affect, Mobility/Frailty, and Voiding/Continence. Expertise areas: applied translational geroscience research (bench, clinical, and population studies); geroscience education; cellular senescence; human immunology and immunogenomics; computational genomics; microbiome genomics; epidemiology of disability; caregiving research; clinical trials and health services research in vulnerable older populations.</p>	<p>1) Present at Research-in-Progress sessions; 2) Attend didactic seminars; 3) Attend Data Resource Core Data Discussion sessions; 4) Meet with individual faculty, core leaders and context experts at UConn Health, University of Connecticut or Jackson Laboratory for Genomic Medicine in Farmington CT</p>	<p>Longer visits can be personally crafted to meet individual interests and needs. Such experiences can be entirely focused on basic bench science, on human subject research conducted at the UConn Center on Aging, on human subject research conducted in the community or they can entail work with large datasets (e.g. UK Biobank, HRS etc). Alternatively, given UConn Pepper Center’s strengths in translational research spanning from the bench to the bedside, as well as from the institution to the community and health policy, custom-designed experiences in combinations of settings are also possible. In addition to experiences involving UConn OAIC Cores, other institutional cores at UConn Health (e.g. Flow Cytometry) and at Jackson Laboratory for Genomic Medicine (e.g. Stem Cell/iPSC Cell Core; Single Cell Genomics Facility) have also been of interest to visitors.</p>

University of Florida Point of Contact: Christiaan Leeuwenburgh cleeuwen@ufl.edu	High resolution respirometry Accelerometry Intervention trails Pre-clinical models of aging Biomarkers Mitochondrial biology Pre-clinical and clinical pain assessments Quantitative Sensory Testing Connected Health Technologies and mobile devices	1) Discussions on mitochondrial biology, high-resolution respirometry technology, accelerometry, intervention trials, preclinical models of aging, biomarkers 2) Discuss strategies for incorporating smart and connected health technologies into wearable and mobile devices. 3) Discuss preclinical and clinical strategies for pain assessment 4) Discuss quantitative pain assessments 5) Discuss ecological momentary pain assessments 6) Discuss movement-evoked pain assessments 7) Discuss ways to incorporating ecological momentary assessments to evaluate inherent variability in geriatric symptoms 8) Discuss data mining and machine learning with existing structured data sources and unstructured electronic health records 9) Mock review of proposed grant of the early stage investigator 10) Recruitment of frail elders 11) Clinical researcher mobility	N/A
University of Maryland Point of Contact: Anne Sullens asullens@som.umaryland.edu	The UM-OAIC addresses the process by which function is lost, and the multiple factors that affect the onset and progression of disability. The UM-OAIC focuses on the restoration of function (i.e. enablement) in order to improve function in those with impairments, and prevent or delay further progression in those who are already disabled. Specialty expertise is available in applied physiology, neuromotor mechanisms and rehabilitation and translation from laboratory to outside settings.	Day 1 - Visiting scholar presents at a seminar; meet with Center leaders to discuss the UM-OAIC and available resources; on-site tour of Physical Therapy and Rehabilitation Science laboratory, VA GRECC exercise facility, human performance and wet laboratories; dinner. Day 2 - Small group meetings or one-on-one meetings with Pepper Center investigators aimed at developing collaborations; participate in a Research Education Core meeting with other junior faculty members; meeting with REC Core leader to discuss career development plan Day 3- Participate in various small working group meetings; observation of research testing; concluding discussions and planning follow ups	N/A
University of Michigan Point of Contact: Ryan McCleery rmccleer@med.umich.edu	Immunology, Falls and mobility, infection prevention and multi-drug resistant organisms, organizational interventions to enhance safety of older adults, Health and Retirement study, biology of aging, biomechanics of gait, urinary incontinence, brain health	1- Participation in our annual Research education core retreat. This usually occurs in May. 2- Visiting scholar opportunities particularly around our Biogerontology /Geriatrics Research day. 3- Participation and presenting at our Aging Research Seminars	1- Wet-lab experience in various labs with PIs who are core faculty of our Pepper Center 2- Participation in our REC and Aging Seminar series 3- one-on-one meetings with our resource core directors for advice on projects 4- grantsmanship
University of Pittsburgh Point of Contact: Bari Guzikowski bmg96@pitt.edu	Mobility and balance, brain aging and mobility, osteoporosis and falls, healthy aging biomarkers, muscle aging	Day 1 - Pepper seminar and pepper scholars activities including presentation of work in progress, meetings with colleagues, participation in regular study meetings Day 2- Observe research activities such as mobile assessment; brain imaging, muscle spectroscopy, biopsy, respirometry, Novel brain imaging, densitometry and high-resolution pQCT. Day 3 – Participate in working group meeting (brain, muscle, Bone, Long term care.), mentorship meetings with core faculty, analysis consultation	Muscle and fat biopsy and tissue studies, P31 MRS of muscle, Near Infrared Spectroscopy on muscle, actigraphy, performance testing including treadmill for peak VO2, isometric and isotonic strength testing, power assessment. Brain imaging including dopamine PET, PIB, volumetrics DXA bone density and pQCT Long term care research, mobile assessments
UTHCSA Point of Contact: Maggie Liang LiangH0@uthcsa.edu	Translational Geroscience, Pharmacological interventions to promote healthy aging, Exercise interventions to promote healthy aging, Novel pre-clinical models in Translational Geroscience such as the marmoset monkey, Advanced metabolic techniques related to aging Research	1) Learn basic principles on Translational Geroscience, including Pharmacological approaches to promote healthy aging 2) Observe advance metabolic techniques related to aging Research 3) Learn mitochondrial biology techniques such as high-resolution respirometry	1) Learn Advanced concepts on Translational Geroscience, including Pharmacological approaches to promote healthy aging 2) Familiarize with the marmoset as a Novel model in Translational Geroscience and participate in ongoing studies 3) Learn Advanced metabolic and imaging techniques related to aging Research 4) Familiarize with Exercise-related Research and participate in ongoing studies

<p>UTMB Point of Contact: Stephanie Burt Stburt@utmb.edu</p>	<p>Foci: Aging in Hispanic populations, comparative effectiveness research Expertise: Physical activity interventions involving technology, epidemiology, outcomes.</p>	<p>Day 1 - Meet with individual faculty members, attend Translational Research in Aging seminar; dinner. Day 2 - Working conversations with key faculty aimed at developing collaborations. Day 3 - Meet with individual faculty members; give Pepper Investigators Lecture.</p>	<p>Attend working groups meetings, such as the Mexican Health and Aging Study (MHAS), the Hispanic Epidemiologic Study of Aging, and the Research Center for Minority Aging Research work-in-progress meetings. For scholars using large data and research interests on health disparities, receive feedback on work-in-progress, or research proposal(s) on Hispanic and Mexican aging. Discuss best practices for recruiting and retaining Hispanic participants in clinical trials or survey research. Meet with Hispanic aging scholars and mentors to share experiences and potential barriers for career advancement and promotion.</p>
<p>Wake Forest School of Medicine Point of Contact: Kimberly Kennedy kkennedy@wakehealth.edu</p>	<p>Clinical trials, weight loss and/or exercise interventions, obesity, muscle and adipose tissue biology, assessment of physical function, biostatistics of aging</p>	<p>Day 1 - Brief one-on-one meetings with relevant faculty; participate in REC writing workshop; tour research facilities Day 2 - Give seminar; Longer, working meetings with key faculty aimed at developing collaborations Day 3 - Concluding discussions with key faculty to discuss next steps</p>	<p>1) Work on a manuscript with the biostatistics core and key faculty using one of the many clinical trials/observational data sets housed at Wake Forest 2) Observe one of the ongoing weight loss and exercise clinical trials including study visits and/or intervention sessions 3) Observe and assist with the muscle and/or adipose tissue biopsy technique in older adults with multiple comorbidities and levels of physical function 4) Observe and learn about assays of mitochondria respiration 5) Observe and learn how to conduct biomarker assays and analyze biomarker data</p>
<p>Yale University Point of Contact: Mary Geda Mary.geda@yale.edu</p>	<p>Multi-morbidity; functional assessment; complex medical decision-making; biology of aging. Expertise areas: epidemiology of aging, gerontologic biostatistics, including complex longitudinal modeling and competing outcomes, multi-site clinical trials</p>	<p>1) Exchange scholar presents at a research-in-progress session. 2) Participation in REC didactic seminar; 3) One-on-one or small group meetings with potential mentor(s) and/or collaborator(s). 4) One-on-one or small group meetings with resource core directors for project consultation.</p>	<p>Two types of experiences: 1) Identify a product goal (e.g. set of analyses, manuscript, grant) and resources to help in accomplishing that goal; bi-weekly meetings with collaborators, mentors, and/or resource core members. 2) Immersive experience in one of the large ongoing observational or trial studies with bi-weekly meetings with primary investigator to learn about all phases of study conduct, workings of an interdisciplinary team, allocation of resources and to explore potential for secondary analyses to be conducted by exchange scholar.</p>