

PEPPER CENTERS AVAILABLE FOR LONGER VISITS:

Pepper OAIC	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 longer (2-3 week) visit.
<p>Duke University <i>Point of Contact:</i> <i>Kenneth Schmader</i> <i>kenneth.schmader@duke.edu</i></p>	<p>Our focus is understanding and optimizing reserve and resilience in older adults. The Physical Measures Core (PMC) 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 wearable activity devices, and measurement considerations across clinical settings and populations. The Molecular Measures Core can offer hands on training in molecular measures including ELISA and GC mass spec analyses. The Research Education Core can offer individual Professional Development and intervention development guidance. The Analysis Core can offer guidance on statistical methods and explore potential opportunities for collaborations using databases from our own center or from the visiting scholar.</p>	<p>For physical measures, a longer visit would allow the trainee to collaborate with PMC faculty to explore function-related research questions in existing datasets (e.g. PALS cohort) for future publication, and/or receive more comprehensive training around data processing, analysis, and interpretation of objective activity monitoring.</p> <p>For molecular measures, a longer-term visit could be done as a collaboration-the trainee would buy kits and ship them in advance and perform analyses on site-perhaps even meet with stat team for discussion of analytical approaches.</p> <p>Intervention development consultations using the Medical Research Council/NIH Framework, as part of our weekly workshop series</p>

Johns Hopkins University

Point of Contact:

Brian Buta

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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.

Three multi-week visit exemplars:

- 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.

Northwestern OAIC

Point of Contact:

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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.

Specific areas of expertise include: -
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

Week 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
- '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)

	<p>health records; medication safety; multi-morbidity; pragmatic trials design; patient activation; patient-reported outcomes measurement (PROMIS, NIH Toolbox); polypharmacy; psychosocial determinants of health; primary care innovation; self-management science; treatment adherence.</p> <p>The Northwestern OAIC includes 3 resources cores that provide guidance and support regarding patient-reported outcomes measurement, technology enabled healthcare design, and comprehensive data analytics.</p>	<ul style="list-style-type: none"> • 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 <p>Weeks 2, 3 (depending on proposed visit length)</p> <ul style="list-style-type: none"> • 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>University of Maryland <i>Point of Contact:</i> <i>Anne Sullens</i> <i>asullens@som.umaryland.edu</i></p>	<p>The UM-OAIC focuses on the process by which function is lost and 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. Assistance will be provided to gain knowledge and expertise as it relates to animal and human studies of recovery</p>	<p>A longer visit would allow the scholar to collaborate with UM-OAIC investigators to receive more comprehensive training in human lab measurements and techniques or musculoskeletal phenotyping in small animals. An individualized faculty mentor session tailored to scholar research focus would be available that would include identifying a product goal (e.g., set of analyses, manuscript, grant) and resources to help in accomplishing that goal; bi-</p>

	<p>from acute illness. Specialty expertise is available in pre-clinical technologies and procedures, applied physiology, robotics, rehabilitation science and technologies and translation from laboratory to outside settings.</p>	<p>weekly meetings with collaborators, mentors, and/or resource core members.</p>
<p>University of Pittsburgh <i>Point of Contact:</i> <i>Bari Guzikowski</i> <i>bmg96@pitt.edu</i></p>	<p>Mobility and balance, brain aging and mobility, osteoporosis and falls, healthy aging biomarkers, muscle aging</p>	<p>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</p>
<p>UCSF <i>Point of Contact:</i> <i>Sarah Ngo</i> <i>Sarah.ngo@ucsf.edu</i></p>	<p>The focus of the UCSF Pepper Center is the prevention and amelioration of disability and functional impairment in older adults. Our work encompasses a range of study methods, including but not limited to clinical trials, observational cohorts, and qualitative research, all with a goal of addressing important questions in this area. We also have particular strength in using national datasets, including the Health and Retirement Study, National Health and Aging Trends Study, Medicare data, VA data, and more to advance research on these topics.</p>	<p>A longer-term visit would comprise many of the same activities as the short-term visit (noted above) plus a mentored collaboration on a specific research project, including intensive discussions relating to research design, subject recruitment, data collection and measurement procedures, analysis, and interpretation and writing. This would be accomplished through a series of meetings with UCSF mentors and research team members, including investigators, biostatistical consultants, measurement experts, and as appropriate research assistants, data analysts, and others. Other individualized activities would include attending high-relevance seminars and lectures as</p>

well as group meetings of Pepper Center research faculty and other aging-related research initiatives.

In addition to the above, longer-term visiting scholars would participate in the same activities as short-term scholars, including:

- Present an ongoing or planned research project at our Pepper Center / Division of Geriatrics Research Works-in-Progress seminar, which is attended by investigators interested in aging research from across UCSF.
- Meetings with research faculty with shared interests in topic areas.
- Mentoring meetings with Pepper Center leadership
- Review and discuss data resources and study design questions with faculty from the Data and Analysis Core and with senior data analysts.
- Discussion with Vulnerable Aging Research Core leaders about strategies for retention and recruitment of cognitively, physically, and socioeconomically vulnerable older adults and their caregivers into clinical studies, including advanced strategies for obtaining and addressing informed consent

		<ul style="list-style-type: none"> • Virtual and/or face-to-face meetings with UCSF clinical and program leaders relevant to clinical application of the scholar's work. • Group lunch with research faculty and fellows • Potential presentation of research in another venue, for example Division, Department, or School-directed symposium or working group meeting • Attend research group meeting(s)
<p>UTMB <i>POINT OF CONTACT:</i> STEPHANIE BURT STBURT@UTMB.EDU</p>	<p>Foci: Muscle aging/sarcopenia, rehabilitation, recovery from illness, medical effectiveness, cancer outcomes, overtesting, patient-centered outcomes research, Hispanic aging.</p> <p>Expertise: molecular biology of muscle aging, cell culture, transgenic animal models, stable isotope methodologies to study metabolism, clinical translation, physical activity interventions involving technology, clinical trials in hospitalized patients, epidemiology, outcomes.</p>	<p>Learn how to establish primary myotube culture from muscle biopsies; learn immunohistochemistry methods for muscle studies; drafting approach for grant application.</p> <p>Training on recruitment of hospitalized patients for clinical trials; drafting protocol for grant application.</p> <p>Learning specific methodologies for large data research; writing a paper or drafting approach for grant application.</p> <p>Learning methodologies for recruitment of Hispanic volunteers in demographic studies, initiate collaborations with Hispanic-EPESE or MHAS cohort investigators.</p>

<p>UTHCSA <i>Point of Contact:</i> Maggie Liang liangho@uthscsa.edu</p>	<p>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</p>	<ol style="list-style-type: none"> 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>Wake Forest School of Medicine <i>Point of Contact:</i> Kimberly Kennedy kkennedy@wakehealth.edu</p>	<p>Clinical trials, weight loss and/or exercise interventions, obesity, muscle and adipose tissue biology, geroscience, research imaging, brain-body connections</p>	<ol style="list-style-type: none"> 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) Learn to conduct biomarker assays using the ELISA technique 6) learn about applying clinical imaging to research 7) learn physical and cognitive research measurements

Yale University

Point of Contact:

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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

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.