FACULTY RESEARCH PORTFOLIO
(Fall, 2017)

College Research Mission

To engage faculty and students in the discovery of knowledge that will define the future of health disciplines through applied and basic research, innovation, and entrepreneurship.

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Section I

POPULATION HEALTH: POLICY, HEALTH SYSTEMS, & PUBLIC HEALTH OUTCOMES

RuthAnn Althaus, PhD, MPH, MBA, MSLIS, CHES
Department of Social and Public Health

Major research area(s): Organization and financing of health systems; interdisciplinary studies of ethics (business, nonprofits, and health care); business models for poverty reduction; health care leadership pedagogy.

Email: althaus@ohio.edu

Select publications:


B. Basta, PhD, MPH, CHES
Department of Social and Public Health

Major research area(s): HIV prevention and treatment; Appalachian rural health; and HIV research ethics.

Email: basta@ohio.edu

Select publications:


**Julie A. Brown, PhD**  
Department of Social and Public Health

**Major research area(s):** Gerontechnology; senior digital gaming (theory development, demographics, design); play in old age; life course.

**Email:** brownj14@ohio.edu

**Select Publications:**


https://doi.org/10.4018/IJGCMS.2016010101


**Theresa Cluse-Tolar, PhD, SW**  
Department of Social and Public Health

**Major research interest(s):** Disproportionality in child welfare, work-family conflict, job stress/satisfaction, interpretation of stalking behavior, poverty, marginalized populations.

**Email:** cluse@ohio.edu

**Select publications:**


**Cory Cronin, PhD**  
Department of Social and Public Health

**Major research area(s):** Health care organizations, hospital community benefit, hospital-community relationships, health care policy, health disparities, health care access.

**Email:** croninc@ohio.edu

**Select publications:**


Cronin CE. *Hospitals’ Choices and the Institutional Environment: The Role of Community Benefit in the Health Care Sector* [dissertation]. Cleveland, OH: Case Western Reserve University; 2015.


**Sarah B. Garlington, PhD, MPhil, MSSW**  
Department of Social and Public Health

**Major research interest(s):** Intersection of religion and social welfare policy and provision at local, national, and international levels; impact of policy on vulnerable populations nationally and internationally, human rights and social work relationship; geographic information systems (GIS) mapping of social dynamics.

**Email:** garlingt@ohio.edu

**Select publications:**


Meredith Gartin, PhD  
Department of Interdisciplinary Health Studies, Global Health Initiative

**Research Interests:** Global health program evaluation and assessment; health systems strengthening and capacity building through partnerships; immigrant and migrant health, food and nutrition; global water security and sustainability.

**Email:** gartin@ohio.edu

**Select Publications:**


Gillian H. Ice, PhD  
Director, Global Health Initiative, Department of Interdisciplinary Health Studies; Adjunct Professor, Department of Social and Public Health; Professor, Department of Social Medicine, Heritage College

**Research Interests:** Stress and aging; caregiving and health; living arrangements and health; global aging; field methods; family impact of HIV/AIDS in sub-Saharan Africa; health systems strengthening and capacity building through partnerships.

**Email:** iceg@ohio.edu

**Select Publications:**


Gregory Janson, PhD
Department of Social and Public Health

Major research area(s): The physiological and psychological impact of trauma and its treatment; working with severely disturbed children, adolescents and families; the effects of emotional maltreatment on young children in school settings.

Email: gregory@ohio.edu

Select publications:


Xia Jing, MD, PhD
Department of Social and Public Health

Major research area(s): Genomics in electronic health records (EHR); knowledge representation; knowledge management; data analysis and visualization; EHR applications; personalized medicine; information customization; structured clinical documentation.

Email: jingx@ohio.edu

Select publications:


Jing X, Cimino JJ, Del Fiol G. Usability and acceptance of the Librarian Infobutton Tailoring Environment (LITE): an open access online knowledge capture, management, and configuration tool for OpenInfobutton. J Med Internet Res. 2015.


**Caroline Kingori, PhD**  
Department of Social and Public Health

**Major research area(s):** Primarily HIV/AIDS and mental health among people of African descent, immigrants and refugees. Other major areas include: measurement and evaluation research; global health; and community-based participatory research.

**Email:** kingori@ohio.edu

**Select publications:**


**Mingun Lee, PhD, MSW**  
Department of Social and Public Health

**Major research area(s):** Social work program evaluation, school prevention program; evidence-based practice in rural settings; social work education and field evaluation; cultural competence.

**Email:** leem3@ohio.edu

**Select publications:**


Randy Leite, PhD, Dean
College of Health Sciences and Professions

Major research area(s): Father involvement with children; post-divorce family dynamics; family policy.

Email: leite@ohio.edu

Select publications:


Michele Morrone, PhD
Professor and Director, Appalachian Rural Health Initiative
Department of Social and Public Health

Major research area(s): Public perception of environmental health risks; Appalachian studies; environmental justice; health disparities, social determinants of health.

Email: morrone@ohio.edu

Select publications:


Shannon E. Nicks, PhD, MPH  
Department of Social and Public Health

Major research areas: The influence of social support and social networks on health behaviors and outcomes using the principles of community-based participatory research (CBPR); specifically, health behaviors and outcomes related to rural lifestyle, socioeconomic and racial/ethnic disparities in women’s health and maternal and child health.

Email: nicks@ohio.edu

Select publications:


Timothy Ryan, PhD, CSP, CIH  
Department of Social and Public Health

Major research area(s): Indoor environment (carbon monoxide detectors, prevalence and risks of MRSA bacteria, and microbial volatile organic compounds); Legionella; distance education pedagogy testing of delivery methods for an applied sciences curriculum via various media platforms, and the assessment of efficacy of such efforts.

Email: ryant@ohio.edu

Select publications:


Kristin Schuller, PhD
Department of Social and Public Health

**Major research interest(s):** Quality improvement, patient safety, rural healthcare delivery, access to care, and organizational change.

**Email:** schuller@ohio.edu

**Select publications:**


**Schuller KA**, Amundson MA, McPherson M, Halaas GW. A program to help culturally sensitize health profession students to the needs of patients and the realities of practice in rural areas. *J Interprof Care*. 2017;31(3):410-412.


Alexander V. Sergeev, MD, PhD, MPH
Department of Social and Public Health

**Major research area(s):** Cardiovascular diseases (CVD) and their conventional (such as diabetes) and emerging (such as persistent organic pollutants) risk factors; comparative effectiveness research (CER) of treatment for CVD; epidemiological studies; quantitative methods in health research.

**Email:** sergeev@ohio.edu

**Select publications:**


Jennifer Shadik, PhD  
Department of Social and Public Health

**Major research interest(s):** Parent interventions for child maltreatment, fathering, parent education, and sibling violence.

**Email:** shadik@ohio.edu

**Select publications:**


Solveig Spjeldnes, MSW, PhD  
Department of Social and Public Health

**Major research area(s):** Effects of rural offender reentry services and informal and formal social support factors on recidivism rates and wellbeing; criminal justice policy; crime reduction and rural community revitalization.

**Email:** spjeldne@ohio.edu

**Select publications:**


Section II
NURSING APPROACHES AND INTERVENTIONS

Cathy J. Baker, PhD, RN, CNS
School of Nursing

Major research area(s): Culturally-sensitive nursing interventions; smoking cessation.

Email: bakerc2@ohio.edu

Select publications:


Rebecca M. Bryant, DNP, CNP
School of Nursing

Major research interest(s): Evidence-based practice to improve patient outcomes: patient self-care initiatives related to chronic disease management and home-based care by nurse practitioners for the geriatric population.

Email: bryantr@ohio.edu

Select publications:


Ilana R. A. Chertok, PhD, MSN, BSN, BA, IBCLC
School of Nursing

**Major research interest(s):** Maternal-infant health from clinical and epidemiological perspectives; prenatal experience and lactation outcomes among women with gestational diabetes mellitus in both the United States and in Israel, specifically the differences in milk properties and timing of transition to lactogenesis II between women with and without GDM.

**Email:** chertok@ohio.edu

**Select publications:**


Deborah Henderson PhD, RN, CNE
School of Nursing

**Major research area(s):** Simulation training nursing education.

**Email:** hendersd@ohio.edu

**Select publications:**


Charman L. Miller, DNP, ANP-BC, CNE
School of Nursing

**Major research area(s):** Forensic nursing; human simulation in nursing education.

**Email:** millerc3@ohio.edu

**Select publications:**


Rika Tanda, PhD, RN
School of Nursing

**Major research areas:** Early life environments and cognitive behavioral outcomes; association between maternal prepregnancy obesity and children's behavioral and cognitive profiles.

**Email:** tandar@ohio.edu

**Select publications:**


Margorie Vogt, PhD, DNP, CNP, CNE, FAANP
School of Nursing

Major research area(s): Teaching-learning outcomes; service-learning; advanced practice nursing; cultural nursing care; childhood chronic illnesses.

Email: vogtm@ohio.edu

Select publications:


Section III

FOOD, NUTRITION, AND EXERCISE SCIENCES:
PREVENTION & REHABILITATION

Darlene Berryman, PhD
Adjunct Research Professor, School of Applied Health Sciences and Wellness
Executive Director, Diabetes Institute, Heritage College
Professor, Department of Biomedical Sciences, Heritage College

Major research area(s): Obesity; depot-specific differences and impact of growth hormone on adipose tissue biology; nutrient and endocrine interplay in obesity and type 2 diabetes.

Email: berrymad@ohio.edu

Select publications:

Comisford R, Lubbers ER, Householder LA, . . . Berryman DE. Growth hormone receptor antagonist transgenic mice have increased subcutaneous adipose tissue mass, altered glucose homeostasis and no change in white adipose tissue cellular senescence. Gerontol. 2015(Sep 16). Epub ahead of print.

Junnila RK, Duran-Ortiz S, Suer O, Sustarsic EG, Berryman DE, List EO, Kopchick JJ. Disruption of the growth hormone receptor gene in adult mice increases maximal lifespan in females. *Endocrinol.* 2016(Dec);157(12):4502-4513. Paper chosen as one of fifteen selected as Best of Endocrinology/Molecular Endocrinology 2016.


**Robert Brannan, PhD**
School of Applied Health Sciences and Wellness

Major research area(s): Reducing the fat content of fried foods; developing value-added ingredients from pawpaw; meat science—interactions between antioxidants in meat systems.

Email: brannan@ohio.edu

Select publications:


**Paul Chase, BS, MEd, PhD**
School of Applied Health Sciences and Wellness

Major research interest(s): Cardiopulmonary responses to acute and chronic exercise in patients with cardiovascular disease; epidemiology of exercise test responses and physical activity patterns; control and limitations of breathing during exercise in those with chronic disease.

Email: chasep@ohio.edu

Select publications:


**Cheryl A. Howe, PhD, CEP, FACSM**

*School of Applied Health Sciences and Wellness*

**Major research area(s):** Dose of physical activity required to prevent and treat childhood obesity and obesity-related diseases; healthy lifestyle interventions implemented in school settings to correct the daily energy surplus related to childhood obesity; measuring enjoyment and energy cost of free-play physical activity in children; fitness, physical activity, and obesity in Ecuadorian adolescents.

**Email:** howec@ohio.edu

**Select publications:**


**Janet E. Simon, PhD**

*School of Applied Health Sciences and Wellness*

**Major research area(s):** Measuring the outcomes of various athletic training interventions as well as evaluating health related quality of life of high school and college athletes who suffer sport-related injury. Use and development of patient-based outcomes instruments for the purpose of outcomes assessment and measuring the end result of healthcare services.

**Email:** simonj1@ohio.edu

**Select publications:**


**Mercedes Sotos Prieto, PhD, MSc**  
School of Applied Health Sciences and Wellness  

**Major research area(s):**  

**Email:** sotospri@ohio.edu  

**Selected publications:**


**Chad Starkey, PhD, AT**  
School of Applied Health Sciences and Wellness  

**Major research area(s):** (a) Epidemiology of sports injuries and illnesses; (b) epidemiological/financial impact of training services provided to Southeastern Ohio High Schools; and (c) evidence-based practice.

**Email:** starkeyc@ohio.edu  

**Select publications:**


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**Section IV

**NEUROSCIENCES: BASIC AND BEHAVIORAL RESEARCH**

François-Xavier Brajot, PhD, CCC-SLP

Department of Rehabilitation and Communication Sciences

Major research interest(s): The nature of sensorimotor integration of speech, with an emphasis on somatosensory contributions, in both neurotypical and disordered populations. This involves three interrelated lines of research addressing neurophysiological, biomechanical and acoustic dimensions.

Email: brajot@ohio.edu

Select publications:

**Brajot F-X.** *The Perception of Speech Intensity in Parkinson’s Disease* [dissertation]. Montreal, Canada: McGill University; 2014.


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Dustin Grooms, PhD, ATC, CSCS

School of Applied Health Sciences and Wellness

Major research area(s): Neuroplasticity associated with musculoskeletal injuries and rehabilitation; neural control of human movement; visual-motor implications for injury risk; musculoskeletal injury screening and prevention; core stability; military human performance.

Email: groomsd@ohio.edu

Select publications:


---

**Jennifer Horner, PhD, JD**
College of Health Sciences and Professions

**Major research areas:** Law and ethics for health professions; research integrity; neurobehavioral disorders.

**Email:** hornerj@ohio.edu

**Select publications:**


---

**Fuh-Cherng Jeng, MD, PhD**
School of Rehabilitation and Communication Sciences

**Major research area(s):** Event-related and cognitive potentials to help identify babies who are at risk for developing language disorders; to enhance the ability of scientists and therapists to create methods to prevent and treat hearing loss and communication disorders for individuals who speak tonal and non-tonal languages around the world.

**Email:** jeng@ohio.edu

**Select publications:**


**Dhiraj A. Vattem, PhD**  
School of Applied Health Sciences and Wellness

**Major research area(s):** Dietary ingredients, micronutrients, dietary supplements and probiotics for therapeutic modulation of stress response signaling relevant to aging, neurodegeneration and metabolic disease.

**Email:** vattem@ohio.edu

**Select publications:**


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**Section V**  
**MUSCLE PHYSIOLOGY AND BIOMECHANICS OF MOVEMENT AND MOVEMENT DISORDERS**

**Gary Chleboun, PT, PhD**  
School of Rehabilitation and Communication Sciences

**Major research area(s):** Mechanics of whole muscle function using ultrasound imaging; change in muscle fascicle length during various daily activities such as walking, stair negotiation, and strengthening exercises; fascicle length adaptation to resistance training; lumbar spine motion in healthy and back pain subjects.

**Email:** chleboun@ohio.edu

**Select publications:**


### Youngsun Kim, PhD, CCC-SLP
School of Rehabilitation and Communication Sciences

**Major research area(s):** Dysphagia (swallowing disorders); biomechanical and temporal characteristics of normal and disordered swallowing; refinement of diagnostic tools and develop intervention strategy for patients who aspirate.

**Email:** kimy2@ohio.edu

**Select publications:**


### Sharon Rana, PhD
School of Applied Health Sciences and Wellness

**Major research area(s):** Effect of fatigue and exercise on neuromuscular function specifically mechanomyographic (MMG) and electromyographic (EMG) signals; muscular performance with exercise intervention, exercise threshold estimations, and childhood growth/obesity studies.

**Email:** rana@ohio.edu

**Select publications:**


Oh H-J, **Rana SR**. Using a 3-day physical activity recall as a homework to increase physical activity in rural Appalachian school youth: a three-week pilot intervention program. *The Physical Educator*; in press.


---

**David W. Russ, PT, PhD**  
School of Rehabilitation and Communication Sciences

**Major research area(s):** Skeletal muscle physiology and fatigue at the molecular, organelle, tissue and organism levels, including human and rat models to determine what factors other than muscle mass can affect muscle force production, particularly in cases of aging and disuse.

**Email:** russd@ohio.edu

**Select publications:**


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**Jeffrey A. Russell, PhD, AT, FIADMS**  
School of Applied Health Sciences and Wellness

**Major research areas:** Neuromusculoskeletal demands placed on the human body by performing arts; body worn sensor applications in biomechanics; orthopaedic imaging of pathoanatomy and motion of the lower extremity in dancers; improvement of healthcare for performing artists.

**Email:** russelj4@ohio.edu

**Select publications:**


Betty Sindelar, PT, PhD
School of Rehabilitation and Communication Sciences

Major research area(s): Examination of the inter-play between structure and function in the development of temporomandibular joint (TMJ) using an animal model (pig) through application of immunohistochemical assays, material testing, EMG analysis, and other biochemical assays; testing novel approaches for the treatment of periodontal disease.

Email: sindelar@ohio.edu

Select publications:


James Thomas, PT, PhD, 2016 Presidential Research Scholar
School of Rehabilitation and Communication Sciences

Major research area(s): Changes in motor coordination in low back pain; interactions of psychological and motor behaviors in the prediction of recurrent low back pain; the neuro-physiological mechanisms of trunk muscle fatigue as well as spinal manipulation techniques.

Email: thomasj5@ohio.edu

Select publications:


Jae Yom, PhD, CSCS
School of Applied Health Sciences and Wellness

Major research area(s): Unanticipated events on lower extremity landing biomechanics during sport movements; postural control with idiopathic toe walking behaviors.

Email: yom@ohio.edu

Select publications:


Section VI

SPEECH, LANGUAGE, AND HEARING SCIENCES AND DISORDERS

Joann P. Benigno, PhD, CCC-SLP
School of Rehabilitation and Communication Sciences

Major research area(s): Situational and psychosocial factors related to social communication skills in children with and without developmental disabilities; language and cognitive outcomes of children who are orphans.

Email: benigno@ohio.edu

Select publications:
Boster JB, McCarthy JW, Benigno JP. Music therapy is beneficial for children with ASD, but more specific clinical guidance is needed. *Evid-Based Commun Assess Intervent*; in press.


Jeffrey J. DiGiovanni, PhD, CCC-A  
School of Rehabilitation and Communication Sciences

**Major research area(s):** Assess and improve hearing aid efficacy with an emphasis on signal processing that is designed to improve speech intelligibility and/or reduce listening effort.

**Email:** digiovan@ohio.edu

**Select publications:**


DiGiovanni JJ, Prewitt JM, Nagaraj NK, Moates DR. The relative contribution to speech intelligibility from consonants and vowels using synthesized and naturally-spoken sentences. *Proc Meetings Acous.* 2012;11:060006.


Chao-Yang Lee, PhD  
School of Rehabilitation and Communication Sciences

**Major research area(s):** Speech perception: the cognitive processes involved in extracting information from the acoustic signal to understand spoken language.

**Email:** leec1@ohio.edu

**Select publications:**


**Sally Marinellie, PhD, CCC-SLP**
College of Health Sciences and Professions

**Major research area(s):** School-age language acquisition including vocabulary, metasemantics, and syntax in relation to literacy skills.

**Email:** marinels@ohio.edu

**Select publications:**


**John McCarthy, PhD, CCC-SLP**
School of Rehabilitation and Communication Sciences

**Major research area(s):** Improving computer interfaces for speech generating devices for children and adults with a wide range of physical, intellectual, and sensory disabilities; expanding creative possibilities for children and young adults with complex communication needs through technology and inclusive programs.

**Email:** mccarthj@ohio.edu

**Select publications:**

Boster JB, **McCarthy JW, Benigno JP.** Music therapy is beneficial for children with ASD, but more specific clinical guidance is needed. *Evid-Based Commun Assess Intervent*; in press.

Hajjar D, **McCarthy JW, Benigno JP.** You get more than you give: experiences of community partners in facilitating active recreation with individuals who have complex communication needs. *Augment Altern Commun.* 2016;32(2):131-142.


James Montgomery, PhD, CCC-SLP, F-ASHA
School of Rehabilitation and Communication Sciences

Major research area(s): Cognitive-based psychometric models of auditory sentence comprehension in school age children with and without specific language impairment, ie, investigating the contribution of cognitive mechanisms to spoken sentence comprehension and intervention approaches to improving comprehension.

Email: montgoj1@ohio.edu

Select publications:


Li Xu, MD, PhD
School of Rehabilitation and Communication Sciences

Major research area(s): Speech perception and pitch perception with cochlear implants: (a) theories and speech processing strategies; b) lexical tone development in prelingually deafened children; and, c) evaluation of speech perception outcomes in with nonlinear-frequency-compression hearing aids.

Email: xul@ohio.edu

Select publications:


