



THE OHIO STATE
UNIVERSITY
COLLEGE OF
EDUCATION AND HUMAN ECOLOGY

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2014

in REVIEW

OFFICE OF RESEARCH NEWSLETTER

FEATURED AWARD

ESL PARTNERS WITH HONDA

This fall, almost 350 Japanese Honda employees --- who will never set foot on our campus --- will study English language and U.S. culture through distance learning. These students, all transfer employees at Honda, are located in Canada, the United States and Mexico.

Honda has always supported English language learning for its transfer employees, but in previous years each of its 10-12 factories in North America has managed its own local program. This year, in an exciting new partnership between Honda North America and the EHE English as a Second Language (ESL) Programs, Honda has selected EHE's ESL Programs to deliver English language training services online to their transfer employees.

All of the materials and instruction will be online and digital; employees in factories across the continent will tune in for live lectures twice a week, will do asynchronous lessons every day and will have regular face-to-face "assessment interviews" modeled after the individual instruction program in Hagerty Hall. The goal is for all employees to raise their TOEIC (Test of English for International Communication) score at the rate of 100 points/year, until they reach 730 (considered to be an advanced level).

EHE ESL Program Executive Director Bob Eckhart and Honda Program Director Jackie Gishbaugher are leading the effort for the joint program with Honda. The program currently includes three full-time instructors experienced in working with Japanese adult learners, individualized instruction and business English. In addition, Graduate Associate Hyun Kyung Kim, from the Foreign, Second and Multilingual Language Education PhD program in the Department of Teaching and Learning, brings experience from writing several books about the TOEIC in her home country of Korea.

One of the most important aspects of the program is assessment: determining how effective the online and digital content is and judging whether students are learning. Most of the content is being created in-house by Gishbaugher and her team; however, students will also have online learning modules and a Pearson Publishing TOEIC book for reference. ♥



For more information about this project or research opportunities, email Bob Eckhart, ESL Program Executive Director at

eckhart.5@osu.edu or visit esl.ehe.osu.edu/.

A MESSAGE FROM OUR ASSOCIATE DEAN



Welcome back to an exciting new academic year! The theme for this issue is STEM (science, technology, engineering, mathematics) research in our college.

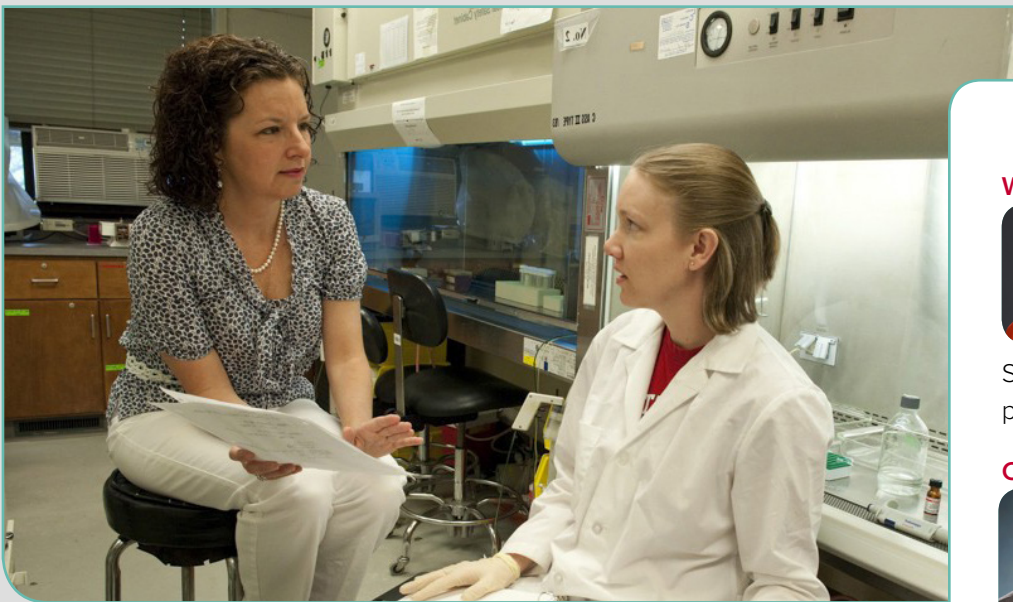
Growing up, math and science were of greatest interest to me, and I would be an engineer today if not for the job market at the time.

We highlight Bob Eckhart for his Honda Language Learning award. Inside you will find listings for new grant awards, fellowships, research and travel awards. There are also two short articles on the CCEC (Crane Center for Early Childhood Research and Policy) and on the International Extended Stay Research Awards.

There will be plenty happening in the EHE Office of Research during the fall. We will have three workshops—Introduction to Research Services in September; Finding Funding Opportunities in October; and Multilevel and Structural Equation Modeling in November. There will also be a special information session for our new faculty. Please keep in mind the deadline for the Office of Research and the CCEC seed grant competitions is September 15 (<http://ehe.osu.edu/research/funding-internal/#faculty-seed-grants>). We hope you will submit an application. See you at one of our fall events and take care.

Richard Lomax

Associate Dean for Research and Administration



Martha Belury and student [jpg]. Retrieved from go.osu.edu/photographs

MARTHA BELURY (Human Sciences)



Interests: Modulation of insulin action under conditions of hepatic insulin; Fatty acid

modulation of gene expression and signal transduction to modulate liver metabolism; Dietary fatty acids and other dietary bioactive components

AMANDA BIRD (Human Sciences)



Interests: Identification of the mechanisms by which cells sense and regulate gene expression in

response to cellular zinc deficiency

JOSH BOMSER (Human Sciences)



Interests: Prevention of chronic disease by non-nutritive dietary components; Identification

of the cellular/molecular mechanisms by which dietary constituents influence chronic disease progression; Influence of dietary constituents on cancer cell growth and energetics

RICHARD BRUNO (Human Sciences)



Interests: Defining vitamin E and polyphenol bioavailability and dietary requirements; Defining

antioxidant and anti-inflammatory actions of green tea and vitamin E for treating nonalcoholic fatty liver disease and vascular endothelial dysfunction

STEVEN DEVOR (Human Sciences)



Interests: Human performance; Skeletal muscle adaptation to the aging process; Exercise

physiology

ROBERT DISILVESTRO (Human Sciences)



Interests: Nutritional biochemistry; Clinical nutrition; Sports nutrition and nutritional pharmacology

HELEN EVERTS (Human Sciences)



Interests: Role of vitamin A metabolism and function in hair follicles, including their stem cells, and diseases of

the skin and hair such as skin cancer and hair loss

BRIAN FOCHT (Human Sciences)



Interests: Exercise; Dietary intervention; Quality of life; Disease prevention; Cancer

EARL HARRISON (Human Sciences)



Interests: Mechanisms involved in the intestinal absorption, transport, and metabolism of dietary

vitamin A and carotenoids; Formation and function of apocarotenoids; Study of retinyl ester hydrolases

SCIENCE

WEIDONG LI (Human Sciences)



Interests: Physical activity and cognitive functions; Anti-fat attitudes toward obese individuals and coping;

Student motivation and cognitions in physical education

CARL MARESH (Human Sciences)



Interests: Physiological responses to different environmental stressors; Hormonal and metabolic

responses to exercise; Optimum methods of hydration; Exercise science

CARLA MILLER (Human Sciences)



Interests: How/why people make nutrition-related behavioral changes; Impact of behavior change

techniques on metabolic outcomes and weight regulation; Theory-based lifestyle interventions particularly for people with diabetes or prediabetes

TONYA ORCHARD (Human Sciences)



Interests: Dietary prevention/treatment of chronic inflammatory conditions with a focus

on fatty acids and musculo-skeletal diseases; Prevention of chemotherapy-induced side effects with omega-3 fatty acids; Nutrient-gene interactions in musculo-skeletal conditions

OULIANA ZIOUZENKOVA (Human Sciences)



Interests: Fundamental pathways regulating metabolic responses and examining their relevance for development of

metabolic syndrome; Identifying targets in vitamin A metabolism for obesity, cardiovascular disease, and type 2 diabetes treatment

FOCUS ON STEM

This issue highlights EHE faculty and staff who are doing work in STEM (science, technology, engineering, and mathematics) fields. In addition to researchers in the hard sciences, we have included mathematics, engineering and science educators and those that are doing research on how people learn with new technologies. For each entry, we've included research interests with the hope that in reading the entries our readers will build new interdisciplinary collaborations across departments and disciplines. We have also included our new science and science/mathematics education faculty, along with their research interests. We encourage you to introduce yourself to these new faculty, as well as to connect with a fellow researcher you have not yet met or reconnect with folks that you haven't spoken to in a while. Collaboration across the college and university creates opportunities we can otherwise only imagine!

SCIENCE EDUCATION

TRACY CINDRIC (Ohio Resource Center)

Interests: Citizen science; Environmental science education; Technology integration; Problem-based learning (Photo not provided)

LIN DING (Teaching and Learning)



Interests: Discipline-based physics education; Student learning deficiencies in conceptual understanding;

Problem solving and scientific reasoning; Curriculum development; Assessment design

DONNA FARLAND-SMITH (Teaching and Learning/OSU Mansfield)

Interests: Science education; Students' perceptions of scientists; Teacher education (Photo not provided)

DAVID HAURY (Teaching and Learning)



Interests: Science education; Environmental education; Science literacy

KAREN IRVING (Teaching and Learning)



Interests: Science education, especially chemistry education; Effective and appropriate use of educational technology in science instruction; Distance education; Dual degree programs; Teacher education; Formative assessment; Classroom feedback; Argumentation; Classroom discourse

HUI JIN (Teaching and Learning)



Interests: Learning progressions; Conceptual development; Environmental education;

Secondary science teaching; Teacher education

LESLIE MOORE (Teaching and Learning)



Interests: Informal science learning; Language socialization; Linguistic anthropology; Applied linguistics; Second language & literacy development; Somali studies

NEW FACULTY: SCIENCE & SCIENCE EDUCATION

SCIENCE

IRENE HATSU (Human Sciences)

PhD: Florida International University
MS: University of Georgia

Interests: Food security, nutritional health, and well-being of vulnerable populations, i.e., chronically ill, homeless or have multiple disabilities; Nutrition intervention and education; Nutrition and health benefits from food assistance programs

JEFF VOLEK (Human Sciences)

PhD: Pennsylvania State University
MS: Pennsylvania State University

Interests: Physiological adaptations to low carbohydrate diets with emphasis on outcomes related to metabolic syndrome, diabetes and cardiovascular disease; Sports nutrition; Evaluating dietary supplements on exercise performance and overall health

SCIENCE EDUCATION

KATHY MALONE (Teaching and Learning)

PhD: Carnegie Mellon University
MA: Carnegie Mellon University and University of New Orleans

Interests: Modeling and model-based reasoning; Scientific reasoning; Cognition and its effects on problem solving; How school communities can integrate the sciences



FOCUS ON STEM

TECHNOLOGY

ANIKA ANTHONY (Educational Studies)



Interests: Technology implementation; Technology leadership; Blended learning;

Technology-supported teacher professional development; Professional learning for pre-college engineering education

HELEN MALONE (Educational Studies)



Interests: Interactions between choice, preference and challenging behaviors; Use of

technology to teach daily living skills to individuals with developmental disabilities; Methods of assessment/treatment for challenging behaviors not maintained by social contingencies

PAUL POST (Teaching and Learning)



Interests: Application of new technologies in the technology education curriculum; Curriculum

development

DAVID STEIN (Educational Studies)



Interests: Increasing cognitive, social and teaching presence in online instruction; Use of feedback

in online instruction; Self-regulated and self-paced instructional systems; Cooperative and collaborative learning in electronic environments

TRACEY STUCKEY-MICKELL (Educational Studies)



Interests: Theory-based instructional/learning strategies and cognition; Interactive learning

technologies; Academic success in at-risk, adolescent/young adult populations

RICHARD VOITHOFER (Educational Studies)



Interests: New media pedagogies and interdisciplinary approaches to the design, development,

evaluation, and analysis of educational media; Technology-mediated learning environments

JOE WHEATON (Educational Studies)



Interests: Accessible technology and accessible web page design

KUI XIE (Educational Studies)



Interests: Computer-supported collaborative learning; Distance education and learning communities;

Interactive and multimedia technologies for learning; Technology integration in teaching and educational research; Artificial intelligence in education

ENGINEERING & SCIENCE EDUCATION

TERRY SHIVERDECKER (Ohio Resource Center)



Interests: Argumentation; Learning cycle; Inquiry-based instruction; Integration of literacy into inquiry-based

instruction; Planning and delivery of professional development

SHIRLEY YU (Educational Studies)



Interests: Relationships of self-regulated learning (e.g., motivation, cognitive strategies, and behavior) to

achievement, particularly among women and ethnic minority students in STEM

TIFFANY WILD (Teaching and Learning)



Interests: Science and engineering education for students with visual impairments



Tiffany Wild and students [jpg]. Retrieved from go.osu.edu/photographs

MATHEMATICS EDUCATION

MICHAEL BATTISTA (Teaching and Learning)



Interests: Mental processes in mathematics learning; Development and use of research-based learning

progressions; Learning and teaching geometry and geometric measurement; Design of computer-based mathematics curricula

PATTI BROSANAN (Teaching and Learning)



Interests: Mathematics education; Achievement gaps

TERRI BUCCI (Teaching and Learning/OSU Mansfield)



Interests: Mathematics literacy in K-6 classrooms; Mathematics teacher leader development; Application of Lesson Study in mathematics

methods courses; Haitian teacher education; Interdisciplinary praxeological learning in study abroad programs

DIANA ERCHICK (Teaching and Learning/OSU Newark)



Interests: Mathematics education; Equity, diversity and social justice; Teacher education

JAMIE KAUTZ (Ohio Resource Center)

Interests: Instructional technologies in mathematics; Motivation in the mathematics classroom; Integration of mathematics and science; Remedial mathematics education (Photo not provided)

HEA-JIN LEE (Teaching and Learning/OSU Lima)

Interests: Teacher education, Reflective thinking and reflective practice; Assessing professional growth (Photo not provided)

AZITA MANOUCHEHRI (Teaching and Learning)



Interests: Teacher education; Mathematics education; Technology in Instruction

NEW FACULTY: MATHEMATICS EDUCATION

THEODORE CHAO (Teaching and Learning)

PhD: The University of Texas
MS: St. John's University

Interests: Mathematics teacher identity; Social justice/equity-based mathematics education; Technology/App development to foster mathematical collaboration and noticing of children's thinking; Special education mathematics teacher education

ARNULFO PEREZ (Teaching and Learning)

PhD: Indiana University
MA: Indiana University

Interests: Analysis of large-scale assessment data; Development of technology to capture real-time data on student reasoning; Conceptual challenges of functional representation; Equity and agency in mathematics teaching and learning ♥

UNIVERSITY GRADUATE FELLOWSHIP AWARDEES

We want to welcome our new, incoming graduate students and congratulate them on receiving University Graduate Fellowships.

DEPARTMENT OF EDUCATIONAL STUDIES

Kelsey Lewis, The Ohio State University

DEPARTMENT OF HUMAN SCIENCES

Catherine Holloway, The Ohio State University

Kyle Bartholomew, Brigham Young University

James Morton, University of Kansas

DEPARTMENT OF TEACHING AND LEARNING

Zhaohua Chen, University of Leeds

Leah Frazee, Miami University-Oxford

Rachel Rickard, Eastern Michigan University

Brian Seilstad, Bryn Mawr College

Emily Spencer, The Ohio State University

Gabriella Ubilla, The Ohio State University

TRAVEL AWARDS

The following individuals received EHE Travel Grants for travel related to conference presentations. These grants were awarded in June 2014.

✦ indicates student participated in the 2014 EHE Student Research Forum

GRADUATE STUDENT TRAVEL AWARDS

EDUCATIONAL STUDIES

Alyssa Emery
Matthew Fullen
Rashea Hamilton
You Joung Lee
Menglin Xu ✦
Gloria Yeomans-Maldonado ✦

HUMAN SCIENCES

Rachel Brown
Cheuk Hee Cheung
Emma Hooper ✦
Elizabeth Palmer ✦
Sara Sandberg-Thoma
Kenneth White
Qiong Wu ✦
Tingting Zhang ✦

TEACHING AND LEARNING

Julia Averill
Kerry Dixon
Kristin Farley
Ali Fleming
Brent Goff ✦
Kimberly Groshong
Heather Hill
Dinglei Huang
Sara Kersten
Min Young Kim
Katherine Molloyhan
Melissa Weber-Mayer

FACULTY INTERNATIONAL TRAVEL AWARDS

EDUCATIONAL STUDIES

Colette Dollarhide
Michael Glassman

HUMAN SCIENCES

Xin Feng
Sherman Hanna

TEACHING AND LEARNING

Mary Bendixen-Noe
David Bloome
Pat Enciso
Mindi Rhodes

POSTDOCTORAL TRAVEL AWARDS

Jaclyn Dynia, CCEC
Xiamei Guo, Human Sciences
Lieny Jeon, Human Sciences
Jennifer Riggie, CCEC

BROWN RECEIVES NSF RESEARCH FELLOWSHIP



Human Development and Family Science doctoral student Rachel Brown, advised by Claire Kamp Dush, Human Sciences, was awarded a **National Science Foundation Graduate Research Fellowship** for three years. Out of 14,000 annual applicants, only 2,000 receive National Science Foundation's graduate research fellowships.

FACULTY PROMOTIONS TO PROFESSOR

Alan Hirvela, Teaching and Learning
Carla Miller, Human Sciences
Sarah Schoppe-Sullivan, Human Sciences
Terrell Strayhorn, Educational Studies

TO ASSOC. PROF. W/ TENURE

Anika Anthony, Educational Studies
Xin Feng, Human Sciences
Claire Kamp Dush, Human Sciences
Kui Xie, Educational Studies
Ouliana Ziouzenkova, Human Sciences

DEAN'S ANNUAL RESEARCH AWARD



This award is given to researchers whose work has had a significant impact on a compelling social issue. This year's awardee was Natasha Slesnick (Human Sciences). Natasha founded Star House in Columbus, Ohio, the only drop-in center in the nation using research-based interventions to help homeless youth return to society. A licensed clinical psychologist, she also studies families and adolescents with issues such as substance use. Natasha has received over \$17 million in funding from multiple federal and state funding agencies: Ohio Office of Attorney General (US Department of Justice), National Institute on Alcohol Abuse & Alcoholism, Ohio Department of Mental Health, National Institute on Drug Abuse, National Institute of Mental Health and Community Shelter Board.

NEW RESEARCH AWARDS

Faculty and staff in the college received 8 new awards between March 1, 2014, through June 30, 2014. The anticipated total award amount for all 8 awards is \$807,735. For additional information on these and previous awards, go to ehe.osu.edu/research/awards/.

| PI/Co-I | Department | Sponsor Name |
|---|--------------------------|---|
| BELURY, MARTHA; Andridge, Rebecca; McCarthy, Donna ; Reiser, Peter Jacob | Human Sciences | National Cancer Institute |
| BLOOME, DAVID | Teaching and Learning | U.S. Department of Education |
| KIECOLT-GLASER, JANICE KAY; Andridge, Rebecca Roberts; Belury, Martha ; Glaser, Ronald; Lustberg, Maryam Beheshti; Malarkey, William Blair; Raman, Subha Venkat | Human Sciences | National Cancer Institute |
| MITCHELL, GLADYS; O'Connell, Ann | Educational Studies | National Eye Institute |
| MURRAY, ROBERT; Goodway, Jacqueline; Pratt, Keeley | Human Sciences | Cardinal Health Foundation |
| SEO, SOOBIN; Ernst, Stanley C | Human Sciences | National Institute of Food and Agriculture |
| WIECHEL, JANE | Weinland Park Lab School | Ohio Child Care Resource and Referral Association |
| ZIOUZENKOVA, OULIANA | Human Sciences | National Institute of Health |

MACBETH AWARDED 2014 ODEE IMPACT GRANT



Karen Macbeth, Educational Studies, received a 2014 Impact Grant from the Office of Distance Education and eLearning. Her team includes Chris Hill and Ivan Stefano. They will create an online version of EDUTL 1901, a required ESL academic writing course for international undergraduate students who place into it via a writing placement test, that will allow (300+) students to take it before they arrive on campus in the fall and thus expedite their eligibility for First Year English courses. Thus, students who need academic preparation for college will receive it BEFORE they arrive on campus, rather than simultaneously with the courses in which they need the skills, as is currently the case. This course plus 1902 are prerequisites to English 1110, which is a prerequisite to many writing-heavy courses across the curriculum. For additional information on this grant, please go to go.osu.edu/ESL2014ImpactGrant.

GUNTHER AWARDED 2014 ENGAGEMENT IMPACT GRANT



Carolyn Gunther, Human Sciences and Extension, and her team have received one of seven Ohio State 2014 Engagement Impact Grants for their project Camp NERF (Nutrition Education Recreation and Fitness). Camp NERF is an innovative, theory-based 10-week daily nutrition and physical activity summer program, grounded in an existing, evidence-based curriculum and infused with cognitive behavioral techniques, designed to help reverse the trend of unhealthy weight gain during the summer in underserved school-aged children. Co-I's: Ihuoma Eneli (Nationwide Children's Hospital), Mary Fristad (Medicine, Psychiatry), Jackie Goodway (EHE, Human Sciences), Laura Justice (EHE, Teaching and Learning), Julie Kennel (EHE, Human Sciences), Bern Melnyk (Nursing), Keeley Pratt (EHE, Human Sciences), Ana Zubietta (Extension). Graduate students on the project: Angela Rose (MS, MPH, OSUN PhD Program) and Ana Brown (MS Human Nutrition Program). For additional information about this and other awards, go to go.osu.edu/engagement2014.

The next round of IMPACT proposals are due in November 2014. Information and the application can be found at odee.osu.edu/odee-grants/impact-grant-application.

UPCOMING EVENTS

WORKSHOPS

INTRODUCTION TO OFFICE OF RESEARCH SERVICES

September 19, 2014
College Commons, 1:00PM

FINDING FUNDING OPPORTUNITIES

October 16, 2014
College Commons, 10:00AM

QUANTITATIVE ANALYSIS: SEM AND MULTILEVEL MODELING

November 6, 2014
College Commons, 1:00PM

SAVE THE DATE FIFTH ANNUAL STUDENT RESEARCH FORUM

January 29, 2015

DEADLINES

Graduate and Postdoctoral Travel Grant Applications Due October 1, 2014

Faculty International Travel Grants are now accepted year-round. There is no longer a specific deadline to apply for Faculty International Travel Grants.

**To apply, go to
go.osu.edu/ORfunding**

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CCEC NEW AWARDS AND PARTNERSHIPS

Reading in Special Education (RISE) is a new project funded by the Institute of Education Sciences (NCSE). This project will span four years and involves a randomized clinical trial to test the impacts associated with implementing the curriculum Read It Again-PreK! in early childhood special education classrooms within Ohio and Pennsylvania. The Kellogg Foundation is funding a second new award, the Solyluna Book Reading Club, which is a parent-child book-reading program being implemented with Mayan families in the Yucatan, Mexico. This club is designed to promote families' access to books for young children, enhance parents' understanding of early literacy development, and improve young children's interest in reading.

The CCEC is also developing the data hub for the Family Centered Community Change (FCCC) Initiative, sponsored by the Annie E. Casey Foundation. This data hub will store child-, family- and community-level data collected by the FCCC partnering organizations. The FCCC Initiative focuses on healthy development, growth and education for children, as well as services that concentrate on parenting, job skills and education for adults. Project activities are embedded in the Weinland Park community.

To find out more about these new initiatives and the other work of the CCEC, please contact Marcie Kamb at kamb.3@osu.edu or visit the CCEC website at ccec.ehe.osu.edu/.

INTERNATIONAL EXTENDED STAY RESEARCH AWARDS

The EHE International Office awards travel grants to EHE students at both the undergraduate and graduate levels who are participating in a study abroad program or spending an extended time in an international setting to conduct research. The office awarded four international research travel grants of \$500 per student as listed below:

Roger Anderson (Leslie Moore, Advisor): Foreign and Second Language Education, June 16 - August 8, 2014, Morocco

James Larus (Amy Barnes, Advisor): Higher Education and Student Affairs Program, June 30 - July 18, 2014, The Entrepreneurial Spark-University of Burgundy, Dijon France

Hanna Paulose (Jay Kandampully, Advisor): Consumer Sciences, May 1 - July 10, 2014, Umea School of Business and Economics, Sweden

Christina (Tingting) Zhang (Jay Kandampully, Advisor): Consumer Science, May 1, 2014 - August 26, 2014, Beijing, China

To learn more about these awards please visit the website at ehe.osu.edu/international/funding-opportunities.