At the intersections of science
At the intersections of science
Discovery in the service of human health and development
The Life Span Institute at a Glance

WHO  
Investigators, research and administrative staff, graduate and postdoctoral students
The LSI brings together 176 scientists who are affiliated with 20 academic departments to study human development from its genetic origins to the final stages of life through 135 research projects. These investigators are supported by 175 research and administrative staff members, including 66 graduate research assistants and 114 student assistants.

WHAT  
Research, training, technical assistance, direct services and leadership
Most of the easy problems in the behavioral and the biological sciences have been solved. Today the important problems are increasingly found and solved at the intersection of many disciplines. The Life Span Institute stands at such a convergence. At the Life Span Institute we know that our mission—to discover knowledge about human health and development—can only be achieved by problem-driven collaborations across many disciplines.

The Life Span Institute’s 14 centers and Peruvian affiliate currently have 135 active programs and projects that constitute basic and translational research, training, direct services, consultation and technical assistance. Last year, more than 30,500 Kansans benefited from the Institute’s direct services, training and technical assistance.

WHEN  
History
The Schiefelbusch Institute for Life Span Studies was established in 1990, when the distinguished 67-year-old Kansas Bureau of Child Research joined with the Gerontology Center and other new research groups to form one of the premier research institutes in the world on human and community development, disabilities and aging. Richard L. Schiefelbusch, for whom the Institute is named, directed the Bureau for 35 years. His appointment to lead the Bureau in 1956 was the beginning of its modern era.

The Institute has had three directors: Stephen R. Schroeder, from 1990 until his retirement in 2001, Steven F. Warren, from 2000 to March 2008, when he was appointed vice provost for research and graduate studies at KU, and John Colombo, who became the Institute’s third director in September 2008.

WHERE  
Administrative and Research Locations
The Institute’s central office is in the Robert Dole Human Development Center at the University of Kansas in Lawrence with components at the John T. Stewart Children’s Center and Malott Hall. The Institute also operates in Kansas City at the Children’s Campus of Kansas City (Juniper Gardens Children’s Project) at the University of Kansas Medical Center’s Robert E. Hemenway Life Sciences Innovation Center and Center for Child Health and Development and at the University of Kansas Edwards Campus (Kansas Center for Autism Research and Training). A major center is also located at the Life Span Institute in Parsons, Kansas.

Much of the work of the Institute is accomplished in and directly benefits underserved Kansas City neighborhoods and rural Kansas counties. Several projects are collaborations with researchers in other parts of the state, region, country and world and are regional, national or international in scope.

HOW  
Funding
The Life Span Institute attracts more combined federal, state and private dollars than any other designated research center at the University of Kansas, drawing $32.8 million in sponsored project support in FY 2015. Each state dollar brought in $8.96 external dollars this fiscal year.
CONTENTS

From the Director 1
Brain-computer interface could unlock minds silenced by stroke and ALS 2
Of mice and men: The neurobiological bases of aggression 3
The Hispanic Paradox and Alzheimer’s Disease 4
Parenting fragile newborns—there’s an app for that 5
Enriching home visits to engage parents 6
Greening a food desert in Wyandotte County 7
Think—and play—like a scientist 8
Strategic hire to enhance KU autism research program 9
Community health researcher returns to lead Work Group 10
The little project that grew 11
Tools to change the world 12
Funding 13
The Centers 14
Affiliated investigators Back cover
From the Director

This has been a big year for LSI in many ways. It’s a year of milestones: the 50th anniversary of Juniper Gardens Children’s Project, the 20th anniversary of the Community Tool Box and the 25th anniversary of the Americans with Disabilities Act. LSI is celebrating the arrival of two important new hires—Vincent Francisco (Director of the Work Group on Community Health and Development) and Matt Mosconi (Clinical Child Psychology and the Kansas Autism Research and Training Center) and two new centers—the Schoolwide Integrated Framework for Transformation (SWIFT) project has been elevated to center status and the Center for Research on Learning (CRL) joined with us in the summer of 2014. Most importantly, LSI investigators continue to be exceptionally productive in pushing the envelope to address the problems they seek to pursue. I’ve long believed that this productivity is a function of the inherent nature of the discovery, training and service that LSI promotes and facilitates in the state, nation and world. That is, to operate at the intersections of different scientific disciplines, bringing the best of different methods, different theoretical approaches and different levels of analysis to the problems of society as a whole and the individuals who comprise it. This has been the nature of the LSI since its inception and our investigators are always looking for ways to connect psychology, policy studies, pharmacology, education, community health and molecular biosciences to address the big questions in human health and development. In the pages that follow, I hope you’ll see and enjoy reading about many examples of how that gets done. We’re happy to present the 2014-2015 LSI Annual Report.

John Colombo, Ph.D.
Director, The Schiefelbusch Institute for Life Span Studies
(The Life Span Institute)
Brain-computer interface could unlock minds silenced by stroke and ALS

Not even Stephen Hawking uses the kind of sci-fi communication interface that University of Kansas neuroscientist Jonathan Brumberg is developing. Hawking uses a cheek muscle to control his voice device. But Brumberg wants to give individuals with no voluntary movement at all the ability to control a communication device via a brain-computer interface (BCI)—with their thoughts alone. And what would set this apart from other speech BCIs is that it would allow an individual to speak through a speech synthesizer in real time.

BCIs are increasingly being used in scientific research and therapeutic interventions for individuals with ALS (like Hawking) as well as for those with “locked-in syndrome” due to brain stem stroke or other conditions, said Brumberg, assistant professor of speech-language-hearing.

Brumberg is testing a prototype BCI that can decode an individual’s brain waves recorded via a non-invasive 60-channel EEG cap into sound frequencies to control a vowel synthesizer with instantaneous auditory and visual feedback.

The actual BCI features an algorithm that transforms brain waves into acoustic and visual representations of speech, according to Brumberg, whose Ph.D. is in the computational neuroscience of speech motor control.

The purpose of the current project is to demonstrate the feasibility of vowel sounds as a feedback mechanism for a speech BCI.

Why vowel sounds? Before coming to KU, Brumberg was part of a team that had a rare opportunity to study data that was collected directly from an individual who had electrodes implanted in the speech motor area of his brain as he thought about producing vowel sounds.

Brumberg and his collaborators discovered that there were reliable brain signals that were related to certain acoustic features of vowels that a BCI computer model could potentially generate through a speech synthesizer.

“If we can provide a device that synthesizes speech, the person with locked-in syndrome who has intact perception perceives what they produced,” he said. “A key part of this perception-production loop is the ability of the perceptual system to tell the production system if it’s correct. And if it’s incorrect, how to correct it.”

Ultimately, said Brumberg, the project will be the basis for future BCI designs that could run on mobile devices using low-dimensional speech synthesizers for continuous production of both consonants and vowels using non-invasive EEG.

Funding: National Institute on Deafness and Other Communication Disorders
Of mice and men: The neurobiological bases of aggression

Road rage is one example of pathological aggression that Marco Bortolato hopes to eventually treat and perhaps even prevent. It is estimated that this kind of impulsive, out-of-control and disproportionate aggression is responsible for up to 60 percent of violent crime in the U.S., and its perpetrators are often incarcerated.

Human studies have found that male carriers of a variant of the gene MAOA, which encodes an enzyme called monoamine oxidase A, are very likely to develop impulsive pathological aggression if they also suffered maltreatment early in life.

“This gene variant results in low activity of monoamine oxidase A, which in turn leads to high concentrations of serotonin in the brain during infancy and childhood,” said Bortolato, assistant professor of pharmacology and toxicology, and a neurologist. Serotonin, a neurotransmitter, directs how the cells of the cortex are connected during early development.

Bortolato’s research group generated a mouse model of the human low-activity MAOA carriers. To simulate abuse and neglect in early childhood, the mice were separated from their mothers for a few hours every day during the first week of life. By the time they reached adolescence, the mice were very aggressive, while their littermates without the mutation (or without the stress) did not develop these behavioral traits.

The researchers found that the high aggression in the stressed MAOA transgenic mice was due to the overstimulation of a serotonin receptor called 5-HT2A in the neurons of the prefrontal cortex. These cells are fundamental to decision-making in the presence of social stimuli, said Bortolato. In this mouse model, however, the cells are incapable of processing critical information for social responses, such as deciding whether an unfamiliar individual poses a threat or not.

But there’s good news. “If the transgenic mice are treated with pharmaceuticals that block 5-HT2A receptors in the early stages of life, we can completely rectify the pathological trajectory,” said Bortolato.

Eventually, the research could lead to new diagnostic and therapeutic interventions for children who are highly predisposed to the disorder.

What’s more, Bortolato’s team is getting good results treating adult mice with riluzole, a drug currently approved to treat Lou Gehrig’s disease. If the final results confirm these findings, Bortolato plans to initiate a clinical trial to test the efficacy of this drug in violent, aggressive adult patients.

Funding: National Institutes of Health, University of Kansas Strategic Initiative Grant, Consortium for Translational Research on Aggression and Drug Abuse and Dependence (ConTRADA)
The Hispanic Paradox and Alzheimer’s Disease

Could the traditional lifestyle of rural Costa Ricans reveal how to slow down or prevent Alzheimer’s Disease in the developing world? That’s the goal of EDAD (Epidemiology and the Development of Alzheimer’s Disease), a collaboration of the University of Costa Rica, the Costa Rican Ministry of Health and the University of Kansas, under the direction of David K. Johnson, a geriatric neuropsychologist.

EDAD investigates the Hispanic Paradox in Costa Rica, where older Costa Ricans living a more traditional (less modern) lifestyle age better than their brothers and sisters who live in the cities.

“This challenges most of what we know about morbidity and mortality,” said Johnson. “Less modern also means fewer doctors, less access to medical facilities, more food insecurity and more exposure to tropical disease. These rural older adults must engage in lifestyles that compensate for all of the risks they are exposed to.”

Lower and lower-middle income Costa Ricans in rural areas walk more and don’t smoke. In preliminary findings comparing 150 rural and 150 urban residents, these appear to be the two distinguishing features that promote greater cardiovascular health—the protective factor in healthy brain aging, Johnson said.

“Our research investigates the critical interaction of cardiovascular risk factors with lifestyle factors in a unique and understudied population of Latin Americans.”

Knowing more about this phenomenon could help address a developing global public health tsunami: Life expectancy has skyrocketed in lower and middle-income nations, and so will the unprecedented growth of elderly populations and the subsequent increase in age-related neurological disorders.

EDAD is part of an international effort funded by the Global Brain Disorders Research program at the NIH Fogarty International Center to build research capacity and partnerships between U.S. scientists and those in other countries.

In this case, the project extends the clinical research infrastructure of KU’s Alzheimer’s Disease Center to Costa Rica to cultivate needed Latin American expertise that will sustain a prospective memory and aging study in that country.

“As this project matures, it will serve as a foundation for a center of Hispanic American research methods,” said Johnson.

Funding: National Institutes of Health Fogarty International Center
Parenting fragile newborns—there’s an app for that

You are a young, poor mother whose parents were harsh and critical. You had a baby 10 weeks ago who weighed just three pounds. She has been in a neonatal intensive care unit where she has been cared for by medical professionals 24/7. Now she is ready to go home—and you panic.

Fortunately, you and your fragile baby are supported by a parenting program that you can follow on an iPhone® app called Baby Net developed by the University of Kansas and the Oregon Research Institute.

Baby Net incorporates a proven, parenting program called PALS (Play and Learning Strategies) that strengthens a mother’s ability to care for her own emotional health so that she in turn can nurture her baby’s cognitive and social-emotional development, said Kathleen Baggett, associate research professor.

Baggett says that although very low birth weight infants (less than three pounds, three ounces) are born to families at all income levels, poverty is one of the factors that increases the risk.

“Families living in very high-stress conditions have more very low birth infants,” she said. “These babies’ signals are more difficult to read and they develop more slowly—that is challenging for any parent.”

Although not all very low birth weight babies face poor outcomes, the likelihood of problems with cognitive, language and social development persist into adulthood without effective intervention.

While low birth weight and prematurity are the most prevalent risk factor for babies born in the U.S., budgets for home visiting programs have been slashed. So a priority of the U.S. Maternal and Child Health Research Program is to fund innovative parenting interventions like Baby Net.

“Since we know that young women use smart phones to access the Internet, that is primarily how we share the intervention with them,” said Baggett.

The Baby Net app allows a mother to record videos of herself with her baby using what she has learned after each of 10 sessions. The videos are streamed and the mothers and their parenting coaches watch and discuss them together.

“Many young women grew up hearing negative and derogatory things about themselves from their parents and have no template for doing things differently,” said Baggett. “We meet parents where they are and build on their strengths.”

Funding: U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Research Program
Enriching home visits to engage parents

Home visitors are on the frontlines of battling the effects of poverty on children and their families. They coordinate family support services including health care, transportation, housing, job placement, counseling, and, in some places like Wyandotte County and southeast Kansas, they even bring Early Head Start into the homes of low-income children.

Project Engage, directed by Kathryn Bigelow, assistant research professor, and co-directed by Dale Walker, associate research professor, is training these family support advocates to implement a proven language promoting intervention with parents of children ages 12 to 30 months enrolled in home-based Early Head Start. In addition to the 90-minute weekly home visits, half of the 146 parents will also get five text messages per week that reiterate how they can help develop their children’s language development in the critical first years of life.

Parents can talk to their babies during everyday routines such as bathing or diapering, explained Bigelow. Parents can describe what they are doing as they change a diaper, such as “Here’s your foot!” or imitate and expand on their baby’s vocalizations during a bath. Later, when toddlers begin to gesture and talk, parents can acknowledge, imitate and encourage those attempts, she said.

While this may seem familiar and natural to many parents, many families need explicit guidance in supporting their child’s language development. This is particularly true for highly mobile, low-income families led by single parents who may have had parents who used a less positive style of communicating.

Parenting programs designed to improve parenting practices have suffered from a lack of parent engagement and retention, said Bigelow, but the hope is that with the addition of reminders and activity suggestions delivered via cell phone, programs can increase the “dosage” of parenting instruction with minimal expense in both urban and rural communities. In turn, children would start school ready to learn and to read—the ultimate goal of Early Head Start.

The randomized controlled trial will measure parent engagement, parent-child interaction and child language.

The findings from Project Engage will become part of President Obama’s Bridging the Word Gap initiative, directed by Walker with Judith Carta and Charles Greenwood, who along with Bigelow, are researchers at the Kansas City, Kansas-based Juniper Gardens Children’s Project located in the Children’s Campus. (see page 11.)

Funding: U.S. Department of Health and Human Services
Greening a food desert in Wyandotte County

KU community health and development research staff are on the ground in Wyandotte County helping build healthier communities one tienda—or neighborhood store—at a time.

Under the leadership of Vicki Collie-Akers, the Work Group for Community Health and Development is operating the Health for All Food Retail and Restaurant Initiative with the Kansas City-based Latino Health for All Coalition. The project aims to increase access to healthy foods at existing family-run stores in neighborhoods where food retailers with fresh produce, eggs, whole grain and dairy products are scarce or nonexistent.

Improving nutrition in Wyandotte County is one of the health promotion strategies of the Coalition’s Nutrition Action Committee with technical and scientific support from the Work Group. The ultimate goal is to reduce diabetes and cardiovascular disease among Latinos in Kansas City, Kan., and Wyandotte County who are disproportionately affected by type 2 diabetes, obesity, asthma and other health conditions.

The Work Group community mobilizers assisted Graciela Martinez, proprietor of Abarrotes Delicias at 3137 State Ave., to become a Health for All Food retailer employing merchandizing practices including product placement, pricing strategies and promotion through branded store signs and social media.

“We work with the owner or manager to develop a plan to incorporate healthier food items in the store,” Collie-Akers said. “We present them with several options that fit the goals and capacity of the store and then agree on the required actions, timeline and resources that will hopefully boost sales and increase opportunities for community members to choose healthy foods.”

These options include stocking cold bottled water at eye level in the soft drinks case, offering low-fat milk, eggs and whole-wheat tortillas, and prominently displaying and offering discounts on produce.

“We want to understand the impact that these changes have on the food environment,” said Collie-Akers, associate director of health promotion research for the Work Group. “We will be examining how many people are reached or experience these changes and how these changes improve the overall landscape for accessing healthy foods.”

Martinez of Abarrotes Delicias even added her own personal endorsement to the Health for All display of fresh fruit in her store: “Tu cuerpo es tu más preciado posseió así que cuida de él” — “Your body is your most precious possession, take care of it.”

**Funding:** The Health Care Foundation of Greater Kansas City, the Kansas Health Foundation, the National Institute of Minority Health and Health Disparities, and the University of California–Los Angeles Health-by-Default REACH project.
Think—and play—like a scientist

If you want to sharpen your decision-making ability, argumentation skills and learn about science—all while playing a video game—then Reason Racer is for you. Reason Racer (reasonracer.com) is an online, multiplayer competitive game that engages middle school students in understanding scientific argumentation, the kind of higher-level thinking that is key to scientific literacy, according to Jan Bulgren, who developed the Evidence Games project with Marilyn Ault, James D. Ellis, Bruce Frey and Jana Craig-Hare, Center for Research on Learning researchers.

“Scientific argumentation means using evidence and reasoning to evaluate and make judgments about a claim,” said Bulgren. “The game helps students practice the process of identifying and evaluating claim statements—or thinking like scientists.”

This is a critical skill that students must have to compete in the world economy, Bulgren said, and one that many young Americans lack. As a result, national policy and federal granting agencies have responded by making research on such skills a priority. The National Research Council’s Framework for K-12 Science and Engineering states that science students must be able to engage in argumentation based on evidence, and the need for argumentation also appears in the goals of Common Core State Standards.

Middle school science literacy standards have changed from students memorizing facts to requiring analysis, evaluation and the synthesis of information—including argumentation. But until recently, this did not include teaching students how to craft an argument.

Reason Racer is unique in that it uses a fast-paced rally race game approach to give students the chance to practice critical thinking and scientific argumentation at pit stops along the course based on 40 different subjects ranging from teleportation to glue made from worms for broken bones. “The game is designed to engage students through competition, autonomy, decision-making, feedback and collaboration,” said Bulgren.

Researchers collaborated with students and teachers from Argentine Middle School in Kansas City, Kan., to develop the game. Ultimately, 14 science teachers and more than 1400 students in middle schools in Northeast Kansas participated in either the treatment or comparison group during an eight-week unit on science.

“The project provided evidence supporting the use of Reason Racer during middle school science instruction,” said Bulgren. “Students who played the game improved in every aspect of argumentation skill and judgment and were more confident and motivated to make judgments about science claims.”

Funding: National Science Foundation
Strategic hire to enhance KU autism research program

Matthew Mosconi, a psychologist and neuroscientist who studies autism spectrum disorders, joined the University of Kansas on August 18 as an associate professor in the Clinical Child Psychology Program and associate scientist in the Life Span Institute.

Mosconi was recruited from the University of Texas Southwestern Medical School where he was assistant professor of psychiatry and pediatrics and head of clinical research at the Children’s Health Center for Autism and Developmental Disorders. His appointment was made possible in part by KU’s Biobehavioral Approaches to Neurodevelopmental Disorders (BAND) initiative and a KU Strategic Initiative grant to the Kansas Center for Autism Research and Training: Phase II Expansion.

Mosconi’s research is focused on understanding the development of behavioral and cognitive issues characteristic of autism spectrum disorder and identifying the brain mechanisms that cause these issues. His work also examines brain-behavior linkages in related monogenic conditions associated with autism, including Fragile X Syndrome. This work aims to determine pathophysiological mechanisms involved in different forms of autism so that biologically based tests useful for early identification can be developed and new targets can be identified to advance treatment discovery efforts.

“Dr. Mosconi’s arrival represents a clear enhancement of the university’s research strengths in autism and neurodevelopmental disabilities,” said John Colombo, Life Span Institute director. “He represents the best of the new generation of nationally visible autism researchers, and we firmly believe that he will contribute to the tradition of high-quality intellectual and developmental disabilities research here at KU.”

Mosconi has been supported by the National Institutes of Health at each level of his academic career, and currently is leading multiple studies investigating the neurobiological bases of sensorimotor and cognitive dysfunction in autism and related disorders.

“We are happy to be able to expand our portfolio to include interdisciplinary translational research in autism spectrum disorders,” said Ric Steele, director of the Clinical Child Psychology Program. “Dr. Mosconi’s work will enhance our understanding of the neural mechanisms of autism and related disorders.”

Mosconi’s expertise in the assessment and treatment of children with autism and related disorders will also strengthen the ability of the KU Child and Family Services Clinic to provide much-needed services to the community, Steele said.
Community health researcher returns to lead Work Group

Vincent Francisco has returned to KU after a national search to direct the leadership team at the KU Work Group for Community Health and Development. He will also hold the Kansas Health Foundation Professorship in the Department of Applied Behavioral Science, College of Liberal Arts and Sciences.

He assumed both positions upon the retirement of Work Group founding director Stephen Fawcett August 14. Fawcett will continue at Work Group on a part-time basis as Senior Advisor.

Francisco, who previously served as associate director of the KU Work Group and assistant research professor, comes back to KU after 11 years at the University of North Carolina at Greensboro where he was an associate professor with the Department of Public Health Education and director of the Doctor of Public Health Program.

While in North Carolina, Francisco partnered with the Work Group and its World Health Organization Collaborating Center for Community Health and Development. His research interests include community health and development, especially for marginalized groups. He had a major role in the development of the Work Group’s Community Tool Box, which last year was used by more than 5.8 million people around the world. (See page 12.)

Francisco’s research interests lie in community health and development, especially for marginalized groups. Much of his experience is in participatory research and evaluation of community-based interventions that address important issues including adolescent development, reduction of risk for HIV/AIDS, teen substance abuse, youth violence, teen parenthood and chronic/cardiovascular diseases.

Francisco’s current research portfolio includes research on factors affecting community and systems change, building the capacity of community members to engage in community health improvement initiatives and environmental changes associated with improvement at the community level.

“I could not be happier to welcome Vince back to the university in this role,” said John Colombo, LSI director. “He brings energy, enthusiasm and a tremendous work ethic to the task of sustaining the productivity and impact of the Work Group.”
The little project that grew: The Juniper Gardens Children’s Project turns 50

Things look a little different in 2015 than they did in 1965 for the Juniper Gardens Children’s Project. Named after a nearby housing project, the research group was first headquartered in the basement of a liquor store remodeled by volunteers from the Kansas City, Kan. community. Since 2010, JGCP has been situated in the same community, but now on the third floor of the gleaming glass three-story 72,000-square-foot Children’s Campus of Kansas City. The $15.5 million CCKC was made possible by those who believed in its bold model of integrating family services, early childhood education and research under one roof—including $12,000 raised by low-income residents of the neighborhood it serves.

The importance of quality early childhood education on the trajectory of the lives of children born in low-income neighborhoods came out of JGCP research beginning in the ‘60s. Since the early leadership of Vance Hall, Montrose Wolf, Todd Risley, Betty Hart and others took applied behavioral science into preschools and public schools with partners like Uriel Owens and Mary Wilkins, JGCP researchers have gone in many new directions, but always with their own community as a touchstone.

JGCP’s research has been recognized not only by its academic peers, but by continuing material and community support, by the products it has produced and by the practices and policies it has influenced. Among JGCP’s many honors, a few stand out, including the prestigious Research Award of the Council for Exceptional Children in 1996.

But it was perhaps the most gratifying honor to date when on October 17, 2014, three of JGCP’s current leaders, Judith Carta, Charles Greenwood and Dale Walker, found themselves at the White House. They had been selected to lead an ambitious national effort to close the 30-million-word gap (first identified by Hart and Risley) as part of President Obama’s Bridging the Word Gap effort.

In the words of the President, “By giving more of our kids access to high-quality preschool and other early learning programs, and by helping parents get the tools they need to help their kids succeed, we can give those kids a better shot at the career they are capable of, and a life that will make us all better off.”

The people who have built JGCP over the last 50 years couldn’t have said it better.
COMMUNITY TOOL BOX

Tools to change the world: 20 years of the Community Tool Box

In 1994, the rapidly developing World Wide Web gave a group of idealistic but practical KU researchers at the Work Group for Community Health and Development the idea of freely sharing material they had been refining for 20 some years on successful approaches to solving community problems. This knowledge was valuable enough that both the Centers for Disease Control and Prevention (CDC) and the Institute of Medicine of the National Academies (IOM) put the findings of the group to use.

They had the credentials and they had the evidence: the time was right to launch the web-based Community Tool Box (CTB). Early supporters included the Kansas Health Foundation and the Robert Wood Johnson Foundation. The original team has remained intact through the years: Steve Fawcett, Vincent Francisco, Jerry Schultz, Bill Berkowitz and Tom Wolff. One notable addition was Christina Holt, who accepted leadership for the continued expansion and sustainability of the CTB in 2006.

By 2004, the CTB’s vision focused on global capacity-building efforts and the Work Group was designated as a World Health Organization Collaborating Centre for Community Health and Development. The CTB was linguistically and culturally translated into Spanish by 2008 and today is being translated into Arabic, Russian, Chinese, French and Portuguese.

The CDC, Healthy People 2020, and the IOM now use the CTB for national community health efforts. In 2013, the CTB was honored by the Society for Community Research and Action with two international awards for “global contribution to the field.” In 2014 the CTB was adopted by the University of Development Studies in Tamale, Ghana as part of its curriculum.

Today, the CTB’s resources and services are used by grassroots groups, teachers, foundations, non-governmental organizations and local, national and international agencies.

“Back in 1994, we had a vision of a common well,” said Fawcett, “a place where anybody could learn skills for changing our world. Now, 20 years later, that vision is a reality. There are nearly 6 million unique visitors from 230 countries annually.”

Planning for long-term sustainability was made real by a $250,000 grant from The Robert Wood Johnson Foundation in August 2015, and work on a $3 million endowment is underway. “We want to ensure that this widely used and relied upon global resource is available in perpetuity,” said Holt.
Funding

The Life Span Institute saw an increase in funding of $7.8 million in fiscal year 2015, to $32.8 million from the previous year’s $24.9 million.* This is a new record for external funding of the LSI. The new record is in large part due to the addition of the Center for Research on Learning (CRL), but it is worth noting that funding at LSI would have surpassed 2014 even without the addition of CRL. LSI holds a total of 135 awards, with 101 continuing awards and 34 new ones.

Federal awards still account for the vast majority (76.85 percent) of LSI funding at $25.2 million, with other sources, including the state of Kansas, at $3.7 million (11.44 percent), private foundations at $2.1 million (6.58 percent), other state agencies at $928 thousand (2.83 percent) and industry and other at funding sources at $754 thousand (2.3 percent) comprising the rest. Funding from the National Institutes of Health decreased to $6.7 million from $7.6 million, but awards from the U.S. Department of Education increased to $15.7 million from $5.1 million. Another $2.2 million in funding was generated by awards from the U.S. Department of Health and Human Services as well as $235 thousand from the National Science Foundation.

The LSI represents a high return on investment. In 1990, LSI returned $3.30 on every dollar the state of Kansas invested in the Institute. In 2014, every state of Kansas dollar invested in LSI yielded $8.96 in external awards.

*In keeping with KU Center for Research reporting policy, funding to LSI from 2008 to 2011 that is attributable to the American Recovery and Reinvestment Act of 2009 is not included here.

LIFE SPAN INSTITUTE FUNDING HISTORY: STATE ALLOCATIONS AND GRANT DOLLARS BY FISCAL YEAR

Gerontology added in 1978; Energy Balance Lab (EBL) added in 2002 and EBL to KUMC (Kansas University Medical Center) in 2012 resulting in a $2.1 million reduction to LSI external funding
**The Life Span Institute Affiliated Centers**

**Beach Center on Disability**

Through excellence in research, training, technical assistance and public service in Kansas, the nation and the world, the Beach Center on Disability seeks to make a significant and sustainable difference in the quality of life of families and individuals affected by disability. Founded in 1988 by KU Distinguished Professors Emeriti Ann and Rud Turnbull, the Beach Center honors Ross and Marianna Beach for their long-standing efforts on behalf of families affected by disability and was inspired by the Turnbulls’ son, Jay, who had several disabilities.

Michael L. Wehmeier, Ph.D., Director
Karrie A. Shogren, Ph.D., Associate Director
Jean Ann Summers, Ph.D., Associate Director and Coordinator, Family Programs
Mary Morningstar, Ph.D., Director, Transition Coalition
Kathleen Lane, Ph.D., Director, CI3T Projects
Contact: 785 864-7600, beachcenter.org

**FY 2014-2015 Highlights**

This was a year of transition for the Beach Center. Founding co-directors Ann and Rud Turnbull retired from KU after decades of service and significant contributions to the field and were celebrated at a tribute event in late 2014. The Turnbulls left the Beach Center well situated to continue to contribute to knowledge and practice in the field of intellectual and developmental disabilities. In addition to ongoing programmatic research in employment, family empowerment and self-determination, the Beach Center welcomed several new research teams under its umbrella. The first team, led by Kathleen Lane, is the Comprehensive, Integrated, Three-tiered (CI3T) Prevention Research Project team. Lane is a professor in the KU Department of Special Education. Although this group has multiple research activities, one recent focus involves a U.S. Department of Education-funded partnership grant, titled “Implementing Comprehensive, Integrated, Three-tiered Models to Meet Students’ Academic, Behavior, and Social Needs: A Researcher-Practitioner Partnership.” This grant will be used to develop a partnership between Lawrence Public Schools and the CI3T project in collaboration with Arizona State University.

A second new research team joining the Beach Center is the Transition Coalition, led by Mary Morningstar, associate professor in special education. The Transition Coalition’s mission is to provide online information, support and professional development on topics related to the transition from school to adult life for youth with disabilities. This is done in a variety of ways by designing training that leads to change and supporting school and community teams as they learn research-based effective practices. The Transition Coalition team has developed a combination of face-to-face and online training in a hybrid approach to technical assistance. A core focus of the team’s professional development is to incorporate self-assessment, engaging and learner-centered hybrid learning, communities of practice, social networking and ongoing technical assistance and support. These efforts are grounded in up-to-date research and effective practices in professional development, college and career readiness and the transition to adulthood. The Transition Coalition is a new partner of the National Technical Assistance Center for Transition in supporting online professional development across three tiers of intensity of online technical assistance.

**Biobehavioral Neurosciences in Communication Disorders Center**

The Center for Biobehavioral Neurosciences in Communication Disorders (BNCD) was founded in 2002 when the National Institute on Deafness and Other Communication Disorders awarded a core grant to establish the center. The BNCD is a natural outgrowth of the Life Span Institute’s long-standing focus on communication and language development and intervention. The BNCD’s research spans a wide range of issues relevant to the causes and treatment of communication disorders from infancy to old age including studies on infant attention, the genetics of language impairments, language intervention, the decline of working memory in old age as reflected in speech and more precise measures of hearing loss to aid cochlear implant design.

Mabel L. Rice, Ph.D., Director
Contact: 785 864-4570, bncd@ku.edu

**FY 2014-15 Highlights**

Fifteen investigators are affiliated with the BNCD with research interests that include the underlying biological and genetic bases of speech, language and hearing disorders and the way in which these processes and abilities play out over time, whether in the natural course of acquisition, age-related decline, trauma-induced decline or impairment or in behavioral intervention settings.

**Center for Research on Learning**

The CRL was established in 1978 as the Institute for Research in Learning Disabilities and currently includes 85 researchers and support staff dedicated to the center’s four-fold mission of research, product development, dissemination/system change and professional learning. Researchers study problems in education and work to place solutions that make a difference into the hands of educators, learners, employers and policy makers.

Michael Hock, Ph.D., Director
Contact: 785 864-4780, crl@ku.edu

**FY 2014-2015 Highlights**

The Center’s research teams and their focus are as follows.

- **ALTEC**, directed by Marilyn Ault, designs, develops and evaluates effective use of educational technologies in K-12 instruction and uses technologies to engage learners.

- **The Center on Online Learning and Students with Disabilities**, led by Sean Smith, Jamie Basham and Daryl Mellard, conducts research on how online learning can be made more accessible, engaging and effective for K-12 learners with disabilities.

- **The e-Learning Collaborative**, led by Mellard, studies and develops new uses of technology to improve online learning environments and pedagogies.

- **The Institute for Research in Adolescent Learning**, co-directed by Irma Brasseur-Hock and Michael Hock, designs and validates instructional practices, strategies and programs that enhance the achievement of adolescents who struggle with learning.

- **The Kansas Coaching Project**, led by James Knight, conducts research on instructional coaching and professional development intended to teach educators how to use proven instructional methods.

- **The Professional Development Research Institute**, directed by Patty Graner, studies ways to design and deliver quality professional learning opportunities and support to teachers with the ultimate goal of improving student achievement.

- **The Research Collaboration**, co-directed by Amy Gaumer-Erickson and Pattie Noonan, provides professional development and evaluation for numerous diverse education projects totaling more than $1.3 million a year.

- **The Transition Coalition**, directed by Mary Morningstar, conducts research on issues for enhancing transition from school to adult life for youth with disabilities and provides evidence-based information, support and professional learning on effective transition strategies.

- **The Professional Development Research Institute**, directed by Graner, studies ways to deliver quality learning opportunities and supports the professional development of teachers and other school personnel with the ultimate goal of improving student achievement.

Activities included the following:

Brasseur-Hock wrote the online course “Blended Instructional Design.” The second iteration of this course was presented at the Flipped Learning Network, the SIM conference and the KU TechEd camp. The design team completed the second iteration of the course and conducted an experimental pilot test.

Jana Craig-Hare is the evaluator for a National Science Foundation grant titled “Enhancing Argumentation with Social Media: Supporting Teacher Professional Learning and Student Science Practice.” She also is the co-principal/external evaluator for the “CYBER-Teams Project” at the Fort Leavenworth School District (USD 207), funded by the Department of Defense Education Activity.
Amber Rowland is a co-principal investigator for a National Science Foundation grant titled “Enhancing Argumentation with Social Media: Supporting Teacher Professional Learning and Student Science Practice,” which is studying how social media can support teacher professional learning and student practice of scientific argumentation in high school biology classrooms.

Ault has two funded projects addressing the integration of existing and emerging technologies into instruction: “Enhancing Argumentation with Social Media: Supporting the Teacher Professional Learning and Student Science Practice” from the National Science Foundation and “Cyber T.E.A.M.S.” from the Department of Defense.

Janis Bulgren is the principal investigator on a newly funded subcontract for an i3 (Investing In Innovation) Development Grant: “Redesign of Secondary Courses to Improve Academic Outcomes for Students with Disabilities and Other Underperforming Students with Mobile Technologies.”

Noonan and Gaumer-Erickson are leading the Kansas TASN evaluation. This recently funded $2.2 million five-year evaluation project provides a comprehensive evaluation of educators’ acquisition of knowledge and skills and the implementation of evidence-based practices that address the current Kansas State Department of Education (KSDE) statewide priorities.

Mellard is the principal investigator for the Center on Online Learning and Students with Disabilities. The Center, funded by the Office of Special Education Programs at the U.S. Department of Education, has conducted research in this area for the past four years.

Centro Ann Sullivan del Perú

Centro Ann Sullivan del Perú (CASP) is a nonprofit educational institution that serves children and adults with intellectual disabilities, autism and behavioral problems as well as their families and professionals from Peru and other parts of the world. Under the direction of its founder, Liliana Mayo, Ph.D., CASP is recognized and honored worldwide for its contributions as a model research, demonstration and training center. Mayo has been supported by a steady stream of KU colleagues who have volunteered as consultants, trainers and fundraisers; notably, Judith LeBlanc, who has served as CASP research director for more than 30 years, retired Life Span Director Stephen Schroeder and Carolyn Schroeder. CASP has a formal agreement with the Life Span Institute and receives much of its staff education through university faculty from the special education and applied behavioral science departments at KU.

Liliana Mayo, Ph.D., Director
Contact: lilimayo@annsullivandelperu.org

FY 2014-15 Highlights

CASP continues to educate more than 450 people with different abilities and their families. Teamwork between the staff and families prepares students for inclusion in life, school and work. More than 110 individuals currently hold positions in real jobs for real pay in small and large companies, the Ministries of Health and Justice, universities and banks in Peru. More that 60 percent of CASP students are the primary economic support for their families and 100 students are included in 53 regular schools.

CASP signed an agreement of cooperation with the government of the Dominican Republic on July 26, 2013. In November 2015 a CASP team started training in a center created by First Lady Candida Montilla de Medina.

The CASP Long Distance Education Program conducted 40 conferences between 2008 and June 2015 for more than 30,555 parents and professionals in the 24 states of Peru and in 15 other countries: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Germany, Guatemala, Honduras, Italy, México, Nicaragua, Panama, Spain and the United States. Conferences continue through the end of 2015.

CASP launched “Garden and Healthy Cooking for People with Different Abilities: Pilot Project in Peru” with the Australian embassy. The project involves the implementation of a kitchen to be used with students who attend CASP. The purpose is to teach skills for growing and caring for plants organically and to use what is harvested for consumption, learning to prepare meals, desserts and healthy drinks. This project, to be included as part of the Functional-Natural Curriculum at CASP, provides opportunities to teach other skills such as taking responsibility, promoting social skills, communication, academic and independent living skills, health care and other skills that everyone needs to learn.

Since 2013 CASP has participated in a project with Delta Airlines of simulation trips so students can have the experience of all the steps involved in airline travel. The simulations take place at CASP where a simulated airport with check-in counters, security and the inside of an airplane will be set up. This fall more than 200 students will participate in a simulated flight from Lima to Atlanta and back to Lima.

In October of this year CASP will initiate the “Mother to Mother” project. This involves training families and professionals all over Peru. Ten different teams composed of a mother and her child with different abilities plus two CASP professionals will travel on a weekend to 10 states of Peru to train more than 100 families in each location. PeruVian Airlines is supporting this project through a donation of 40 airline tickets.

The R2I project, Early Prevention of Neurodevelopmental Behavior Disorders among Young At-Risk Children in Peru that ended in May 2013, produced 10 published papers. Fifty children from this project are still being followed by CASP, with funding from benefactors, and are still doing well. With adequate funding, CASP hopes to follow these children into adulthood. Steve Schroeder continues to visit CASP and follow the outcomes of this project.

Janet Marquis, Judith LeBlanc, Lisa Hallberg and the staff of CASP continue work on developing a recording system that will demonstrate the advancements of each student in their annual individual objectives. These data will soon be computerized, providing the classroom specialists with up-to-date information on their students.

Child Language Doctoral Program

The Child Language Doctoral Program was established in 1983 as the first specialized degree program in the emerging field of child language acquisition. The program focuses on the interdisciplinary academic preparation and research training of child language specialists. The internationally recognized faculty bring diverse approaches to the study of how children communicate and speak. The program offers students a wide choice of research tools, facilities and affiliated research labs, including large-scale longitudinal studies of children with language impairments, genetics of speech and language impairments and language intervention studies of children with a wide range of language impairments including those using communication devices. LSI, the Language Acquisition Preschool and the clinical and research facilities of the Speech-Language-Hearing Clinic provide research sites and practicum experiences.

Mabel L. Rice, Ph.D., Director
Contact: 785 864-4570, clp.ku.edu

FY 2014-15 Highlights

The CLP is affiliated with the departments of applied behavioral sciences, clinical child psychology, linguistics, psychology, and speech, language and hearing. Over the last year the collaborative structure of the CLP has expanded to establish the CLP as an entity that provides faculty appointments and new course development that complements those of the affiliated departments. Lesa Hoffmann, Ph.D., is the first direct faculty appointment in the CLP, with a split appointment as professor in the CLP and as the scientific director of the Research and Design and Analysis unit within LSI. She is an outstanding quantitative scholar with multiple projects funded by the National Institutes of Health. She is also well known as a teacher and consultant and is the sole author of a recent textbook on longitudinal analyses. She teaches new advanced coursework on modeling methods for longitudinal and multivariate studies of children’s development.

The second new faculty member in the CLP is M. Hashim Raza, a research geneticist working at an internal research lab at the National Institute of Deafness and Other Communicative Disorders. Raza joined the CLP as an assistant professor in 2015. He is an expert in pedigree-based genetic analyses that have led to the identification of candidate genes for stuttering. He is moving into genetic studies of families with language impairments. Raza will be developing new doctoral-level courses in genetics of speech and language impairments. One of the new courses will be offered in a collaborative format with Mabel Rice in order to bridge the scope of genetics investigations, from molecular bioscience to behavioral phenotyping of speech and language impairments.

Students currently enrolled in the CLP are Claire Selin, Teresa Giralamo, Heather Fielding and Erin Andres.

Gerontology Center

The Gerontology Center’s affiliation with the Bureau of Child Research in 1990 paved the way for an extended research agenda of the newly formed
Life Span Institute. Center researchers are interested in all areas of aging but are distinguished by seminal research in cognition, communication and aging, long-term health care and housing alternatives and decision making in later life. The Center coordinates a multidisciplinary graduate program that offers both masters and doctoral degrees in gerontology, as well as dual-title doctoral degrees that combine training in gerontology with certain social and behavioral sciences.

David J. Ekert, Ph.D., Director
Contact: 785 864-4130, gerontology.ku.edu

**FY 2014-2015 Highlights**

Gerontology welcomed two new KU faculty members, Tamara Baker (psychology) and Lessa Hoffman (child language doctoral program and LSI), who come with national reputations in aging research. Productive relationships with other KU faculty members and graduate students have begun.

A July 2015 paper in *PLOS One* reported research by David Johnson and colleagues at the KU Alzheimer’s Disease Center. Their experimental study specified the benefits of moderate exercise for fitness and for cognitive outcomes in later life. The findings were also reported by the *New York Times* and in numerous other news outlets. In recognition of his expertise in aging and memory, Johnson has been appointed a standing member of the Behavioral Sciences review group at the National Institute on Aging.

Susan Kemper continued to promote a scientific approach to understanding aging and age-associated problems with cognition, communication and technology. In addition to her lecture at KU’s Mini-College, she also spoke to a standing-room-only crowd at the Topeka and Shawnee County Public Library on “Use it or Lose it,” as part of the College of Liberal Arts and Science’s Community Lecture series, and she spoke at staff training workshops at the corporate offices of both Garmin and Sprint in Kansas City. She was recently interviewed by the BBC for a new television series on “How to Stay Young.”

In other community outreach, David Ekert has begun teaching a course on the politics of Social Security for KU’s Osher Lifelong Learning Institute. The course anticipates policy discussions relevant to older Americans in 2016 elections.

Amber Watts has presented research on the benefits of exercise for health and cognition, specifically as helped by “neighborhood walkability.” Her results, funded by a KU Strategic Initiative award, show that easy-to-walk communities can blunt cognitive decline. These findings received media coverage in *U.S. News and World Report* and other outlets.

David Ekert participated in the GSA-Sino Conference at the Chinese University of Hong Kong, “Putting Aging Research and Clinical Practice in Cultural Context.” His paper outlined his concept of a “material convoy” of possessions over the life course. Other publications from his NIH-funded study of possession divestment appeared in the * Routledge Handbook of Cultural Gerontology* and the *Journal of Aging Studies*.

The Center has become part of the Design & Health Research Consortium awarded to the KU School of Architecture, Design and Planning by the American Institute of Architects Foundation. The Center also continued to help develop the I-70 Corridor Network on Aging that began with a KU Strategic Initiative II grant to members of the Center. The network consists of researchers from nine universities along I-70 in locations ranging from St. Louis, Mo., to Manhattan, Kan.

Doctoral degrees in gerontology were awarded in 2014 to Erin Smith for research on retirees and relocation, and to Magdalena Leszko for research on intimacy, caregiver burden and marital satisfaction for spouses of dementia patients. Smith is now a research associate at Greenwald and Associates in Washington, D.C., and Leszko is a postdoctoral research fellow at Northwestern University.

The 2015 Excellence in Gerontology Award was given to Catheryn Koss, doctoral candidate in gerontology, to support her dissertation research on older adults’ motivation and decision making for end-of-life planning. KU Endowment this year inaugurated a second scholarship in the field of aging, the Louise McClendon Scholarship in Gerontology, to support graduate students researching aspects of in-home care.

**Juniper Gardens Children’s Project**

The Juniper Gardens Children’s Project (JGCP) began in 1964 when citizens from northeast Kansas City, Kan., joined with faculty from the University of Kansas to devise solutions to specific problems in educational achievement and parenting in that low-income community. The JGCP has grown over the years from a small, community-based research initiative housed in the basement of a liquor store to a unique, internationally recognized research center that includes local and national community sites in projects and investigations housed at the Children’s Campus of Kansas City, four blocks from where it began. The Children’s Campus is a joint community initiative in Kansas City, Kan., an effort that the JGCP has supported for the past decade. The JGCP is particularly recognized for its contributions to the development of effective approaches for accelerating learning and reducing classroom conduct problems in special and general education. In 1996 the JGCP was awarded the Research Award of the International Council for Exceptional Children in recognition of its outstanding research contributions.

Charles R. Greenwood, Ph.D., Director
Debra Kamps, Ph.D., Associate Director
Barbara Terry, Ph.D., Director of Community Relations
Contact: 913 321-3143, jgcp.ku.edu

**FY 2014-2015 Highlights (50th Anniversary Year)**

The JGCP continues to support early childhood and early intervention research in the birth-to-age-five frame. Work with infants, toddlers and preschoolers focuses on improving social-emotional outcomes and parent-child interaction (Infant Net, My Baby & Me [Baggett]), language outcomes (Making Online Decisions (MOD [Buzhardt]), (Bridging the Word Gap Research Network [Carta, Greenwood & Walker]), (IPAD augmentative communication [Bourque]), (Maternal, Infant and Early Childhood Home Visiting Program [Bigelow & Walker]), and early literacy (Literacy 3D [Greenwood]).

Continuing JGCP’s original mission, research focuses on school-age children, including those with challenging behavior and severe emotional and behavior problems. Work in the schools focuses on the researcher/practitioner partnership with paraprofessionals trained to use evidence-based practices. Behavioral self-management (I-Connect) is developing online modules and telecoaching studies for teens and young adults with ASD (I-CONNECT Plus). For children with ASD, the positive effects of peer networks on social skill development have been documented (Kamps, Thiemann-Bourque, Heitzman-Powell, Schwartz, Rosenberg, & Cox, 2014) and work is planned to replicate findings across age groups.

JGCP is a leader in developing digital applications that support research and practice. Mobile phones and tablet devices running Android and Apple OS are used to support intervention implementation, providing real-time practitioner advice and data-based feedback and support. Original work at JGCP demonstrated that cell phone texting and contacting greatly reduced attrition for interventions serving high-risk mothers (Carta, Lefever, Bigelow, Borkowski, & Warren, 2013). This technology was used with rural and urban Early Head Start programs to help parents use communication interventions with infants and toddlers (Bigelow & Walker). Early childhood educators and researchers in 26 states and three countries have entered more than 61,000 assessments of 10,000 children into the Individual Growth and Development Indicators (IGDI) online data system, now 10 years old, which helps guide practitioners’ intervention decisions with at-risk infants and toddlers (Buzhardt, Greenwood, Walker, Anderson, Howard, & Carta, 2011). The Distance Mentorship Program (Buzhardt & Summers), a cloud-based tool that supports K-12 teachers working with students who are deaf-blind, teaches specific classroom strategies for technical assistance providers to deliver distance coaching to rural and remote schools.

JGCP is a leader in the development and validation of measures for teachers, children and youth, caregivers, home-visitors, and parents needing information and support to implement interventions. IGDI’s for infants and toddlers are web-based tools for early interventionists conducting universal screening, progress monitoring and data-based decision making. Current work is adding implementation science components to improve wide-scale use, and new IGDI’s for movement and cognitive problem solving are being validated. The Classroom CIRCLE for preschool is a classroom observation system to provide teachers feedback on their efforts to improve literacy instruction and enhance children’s engagement.

Doctoral students and post-doctoral associates come to JGCP to advance their knowledge and skills in community-engaged research and development. Two doctoral students mentored by JGCP faculty graduated this year, as did two KU doctoral students advised by JGCP researchers. Three post-doctoral associates completed their work and took positions at other universities. Two others at JGCP are continuing their programs of research.
Kansas Center for Autism Research and Training

The Kansas Center for Autism Research and Training (K-CART), established in 2008 with private and public funds, is a multidisciplinary center that promotes research and training on the causes, nature and management of autism spectrum disorders (ASD). Committed to the highest standards of scientific rigor, K-CART generates new scientific discoveries about ASD, disseminates research-based practices by training professionals, practitioners and families who serve children and adults with autism, and provides clinical services through the Center for Child Health and Development at the University of Kansas Medical Center. Debra Kamps, Ph.D., Director Kathryn Ellerbeck, M.D., Co-Director Contact: 913 897-8472, kc/art.ku.edu

FY 2014–2015 Highlights

K-CART promotes research and training on evidence-based practices by training professionals, practitioners and families to serve individuals with autism. Ten pilot studies were originally funded in bio-behavioral assessments and interventions for persons with Autism Spectrum Disorders. The work from these grants supported new research initiatives, several leading to funded projects. Among these projects was I-CONNECT Plus, which developed instructional modules, telecoaching and self-management to support adolescents and young adults on the spectrum (Kamps, Wills, Mason). Another was a study by Kathy Thiemann-Bourque on the use of I-Pads to increase social-communication skills for non-verbal preschoolers with autism and their peers.

In 2015 funding from the KU Strategic Initiative enabled a critical expansion for K-CART. The first step was hiring a researcher with expertise in the neuroscience and neurocognitive aspects of autism to increase basic research and to develop informed, specific and effective treatments to support children and young adults with ASD. A nationally known researcher, Matthew Mosconi, was recruited to lead this effort. A psychologist and neuroscientist in ASD most recently at the University of Texas Southwestern, Mosconi is expected to increase the national profile of KU in the field of ASD. (See page 9)

In 2014 K-CART launched the Autism Connections video series on its website. Three videos, Connecting Kids, Connecting Teens and Connecting Parents, is a professionally produced series giving consumers general information about autism and ways to communicate and socially engage with classmates, friends and family members with autism.

K-CART, in partnership with Johnson County Community College, hosts an annual conference on “Beyond the Diagnosis: Autism Across the Life Span.” More than 200 families and professionals attend this conference every year to receive information from KU researchers and community experts. The partnership also includes an on-campus ASD Support Club for students.

The Autism Training Program (ATP), designed for individuals wanting to provide early autism intervention services, is funded by the Kansas Department of Children and Families. The ATP has conducted 76 trainings and trained more than 600 individuals since its inception.

The OASIS Parent Training Program is assessing the training of parents of children with autism on how to implement behavioral techniques with their child. Findings from this research were published in Advances in Medicine (2013). This research recently transitioned into a clinical service at the Center for Child Health and Development at the KU Medical Center.

The Bridge Clinic is for children recently diagnosed with autism. The clinic provides short-term behavioral interventions for the child and trainings for a community provider.

The Functional Analysis Clinic determines how environmental events may affect children’s challenging behavior. The clinic develops personalized treatment plans to help reduce these behaviors and teaches parents how to interpret environmental cues and better implement behavior management strategies.

The Center for Child Health and Development (CCHD) provides important clinical evaluations, diagnostics and services. Under the guidance of Kathryn Ellerbeck, K-CART co-director, approximately 1200 children are seen annually, more than 700 with autism. To better serve rural populations in Kansas, CCHD has 20 telemedicine clinic slots per month and has pioneered diagnosis and treatment via telemedicine.

The CCHD has developed its leadership capacity in bio-informatics for people with autism. Since 2009 the CCHD has used the Comprehensive Research Information System to track all intakes into the CCHD. In 2010 a patient portal was implemented, allowing families to complete their child’s diagnostic history on-line. CCHD now has a searchable database of more than 6,000 patients, including more than 300 data items regarding medical and diagnostic history.

Kansas Intellectual and Developmental Disabilities Research Center

The Kansas Intellectual and Developmental Disabilities Research Center (KIDDRC) serves as the predominant focus for intellectual and developmental disabilities (IDD) research at the University of Kansas by supporting basic research on various neurodevelopmental disorders and early interventions that improve cognitive, language and social outcomes in typically developing children and children with disabilities. Core facilities and equipment for genetic sequencing provide KIDDRC investigators with access to state-of-the-art protocols. The Center provides a focus for the development of new investigators in IDD; significant numbers of junior scientists are mentored within KIDDRC-associated training grants. In 2015 KIDDRC had 43 investigators and co-investigators, including 4 new junior principal investigators (PIs). KIDDRC’s portfolio currently contains 41 projects, most funded by NIH or awarded through NIH-equivalent peer review. Eighty percent of KIDDRC PIs collaborate with other KIDDRC scientists within the institution, and about 40 percent collaborate with KIDDRC investigators across the three Center sites. This culture of collaboration extends to interactions with other IDDRCs: nearly one-third of our PIs (30 percent) collaborate with IDDRCs at other universities, including Vanderbilt, UNC at Chapel Hill, University of Washington, University of Wisconsin, Washington University (St. Louis) and Johns Hopkins/Kennedy Krieger.

John Colombo, Ph.D., Director Peter Smith, Ph.D., Co-Director

Contact: 785 864-4295, kiddr.cku.edu

FY 2014–2015 Highlights

Research highlights include the following:


Kathy Bourque, Nancy Brady and Mike Barker won the Editors’ Best Research Paper Award for a paper in Augmentative and Alternative Communication. Bourque also published with Nancy Brady and Steven Warren in the American Journal of Speech-Language Pathology, documenting the level of language input in parents of children with Down Syndrome.

Tiffany Johnson, Steven Schroeder, Nancy Brady, Merlin Butler and Janet Marquis published a paper in the American Journal on Intellectual and Developmental Disabilities describing the first and only nationwide survey (Peru) of young children below the age of 3 years at risk for severe behavior disorders and IDD.

KIDDRC PIs John Colombo and Susan Carlson published a paper in Prostaglandins, Leukotrienes and Essential Fatty Acids showing that the effects of an intervention designed to correct deficiencies in LCPUFAs varied, depending on individuals’ genetic profiles for fatty acid metabolism. Another paper published by this team in the same journal showed that children who consumed LCPUFA-supplemented formula as infants ended up as leaner children.

Yolanda Jackson published six papers this year, including Child Abuse and Neglect with RDA manager Kandace Fleming, reporting that the type and severity of maltreatment are better predictors of behavioral problems than the frequency of maltreatment.

In a paper published in the American Journal of Speech-Language Pathology, Nancy Brady’s team (including RDA statistician Rebecca Romine-Swinburne) found that maternal gesture use in the toddler period was positively related to expressive language scores at both age periods and related to receptive language scores in the child period.

Kathleen Baggett and colleagues published a study in Developmental Psychology that examined the efficacy of high-intensity and low-intensity multimodal parenting intervention beginning prenatally and continuing until children reached 2.5 years of age. The high-intensity condition showed higher levels of contingent responsiveness, higher quality verbal stimulation and more verbal scaffolding by 30 months, with higher levels of warmth and
greater decreases in physical intrusiveness and negativity when their children were 24 months.

Randolph Nudo published two papers in Neurorehabilitation and Neural Repair showing the effects of rehabilitative training on motor performance and quality after ischemic strokes in motor cortex. The second paper showed greater post-stroke neuronal recruitment could be a compensatory response to lower neuronal metabolism.

Michael Soares, a long-time contributor to the KIDDRC community, was part of a meeting of leaders gathered at NIH in late 2014 for a meeting on maternal-fetal immunity and fetal development/pregnancy outcomes. This meeting generated a paper in Nature Immunology summarizing the state of the field and setting priorities for the future. Among the most impactful work coming from Soares’ lab include papers on the adverse effects of nicotine on placental development.

**Kansas University Center on Developmental Disabilities**

More than 40 years ago, as the Life Span Institute’s research on developmental disabilities took root, efforts began to translate this research into practice through what is now known as the Kansas University Center on Developmental Disabilities (KUCDD). Virtually all of the Life Span Institute’s direct service, technical assistance and post-doctoral pre- and in-service training are associated with the KUCDD. These include clinics to diagnose and treat children with disabilities, a statewide project that provides assistive technology to people with disabilities and their families, and training childcare providers and social workers to support individuals with disabilities.

In addition, investigators affiliated with the KUCDD conduct research that has state, national and international impact in areas like self-determination, positive behavior supports, inclusive educational practices, early childhood education, community and workplace supports, family systems and supports and other areas critical to the lives of people with developmental disabilities and their families.

Michael L. Wehmeyer, Ph.D., Co-Director
Karrie A. Shogren, Ph.D., Co-Director
Glen White, Ph.D., Associate Director
Chet Johnson, M.D., Director, KUCDD-Kansas City Site
David Lindeman, Ph.D., Director, KUCDD-Parsons Site
Sara Sack, Ph.D., Director, Assistive Technology for kansans Project
Jennifer Kurth, Ph.D., PI, Kansas Institute for Positive Behavior Supports
Susan B. Palmer, Ph.D., Community Education Coordinator

Contact: 785 864-4295, www.kucdd.org

**FY 2014–2015 Highlights**

Faculty at the Center for Child Health and Development (CCHD) at the University of Kansas Medical Center, affiliated with the KUCCD Kansas City site, provided early identification and intervention development through healthcare screening and evaluation of autism diagnosis and screening to 139 families and children throughout Kansas via the Autism Referral Evaluation telemedicine clinics. Families who were served by telemedicine lived an average of 180 miles from KUMC. Through the Rural Outreach Clinics operated by the CCHD and the Kansas Children with Special Health Care Needs project, KUCDD Kansas City-site faculty provided rural outreach clinics in four communities, serving almost 30 families who would not otherwise have had access to such services. Further, special arrangements were made to serve military families at the Kansas bases, including Ft. Riley and Ft. Leavenworth.

The Assistive Technology for Kansans (ATK) project, operated by the KUCDD-Parsons site, provided training on the availability and use of assistive devices and services to 482 people in Kansas and across the United States and direct technical assistance on the use of AT devices to 439 Kansans at multiple sites across the state. Further, ATK lent devices to 610 people with disabilities for them to try out in their homes, schools, work places or communities.

The Gateway to Self-Determination Project operated by KUCDD Lawrence-site faculty, engaged in training and technical assistance on promoting and enhancing the self-determination of adults with intellectual and developmental disabilities and conducted training and technical assistance activities to support efforts to promote the self-determination of people with intellectual and developmental disabilities across Kansas and the United States.

The Kansas Inservice Training System (KITS) developed and implemented 19 technical assistance (TA) plans for early intervention providers or preschool special educators in Kansas. These TAs are highly intensive with written plans identifying outcomes, needed resources, persons responsible, evaluation methods and goal attainment scales. This current year TA plans had an impact on 62 administrators, 413 professionals and 6,842 children.

KUCDD faculty in the Kansas Institute for Positive Behavior Supports trained 5,250 professionals on positive behavior supports and responded to more than 7,000 requests for technical assistance through the KIPBS website.

**Life Span Institute at Parsons**

As the founding center of the Schiefelbusch Institute for Life Span Studies, LSI at Parsons has worked with national, state, regional and community partners to conduct research, develop model service programs and provide training for professionals involved in services for individuals of all ages with disabilities and their families. Located in southeast Kansas, the center includes a component of the Kansas University Center on Developmental Disabilities and the Parsons Research Center.

David P. Lindeman, Ph.D., Director
Contact: 620 421-6550, ext. 1713, parsonslsi.ku.edu

**FY 2014–2015 Highlights**

Faculty and staff provided training or technical assistance to 16,702 Kansans in all 105 Kansas counties and 1,673 individuals at national conferences.

Assistive Technology for Kansans (ATK) was one of four state programs invited to present to the U.S. Department of Education. ATV provided technical assistance in 14 states.

LSI Parsons served 3,678 Kansans with disabilities and chronic health conditions at six sites where individuals accessed more than 5,145 assistive technology (AT) services and acquired nearly 2,000 AT devices valued at more than $1.5 million.

The following Kansans received AT services from LSI Parsons in 2014:
- 95 infants and toddlers with disabilities and their families
- 311 adults with disabilities who were retraining or obtaining employment
- 97 farmers, ranchers and other agricultural workers
- 1,390 seniors needing services to stay in their homes or be active in their community
- 1,669 who received training on use and maintenance of an assistive device.

LSI Parsons collaborated with Kansas State University to operate the AgrAbility project to assist injured farmers and ranchers in acquiring technology and modifying production activities to support returning to agricultural employment.

ATK provided services to 83 individuals during the second year of operating the I-KAN Connect advanced telecommunication grant for individuals who are deaf and blind. As part of the National Deaf Blind Equipment Distribution Network, ATK provided assessment and training to support deaf-blind Kansans across the state.

Faculty and staff supported 11 of the 45 individuals with disabilities who participated in ATK’s new project, “Achieving Employment and Health Goals with Digital Technology,” to obtain employment using their new digital technology skills.

LSI Parsons also operated the Telecommunication Access Program (TAP) and the Dual Parry Relay System. TAP provides telecommunications equipment to individuals earning $55,000 a year or less who have trouble using traditional telecommunications due to vision, hearing, motor, cognitive or speech difficulties.

Faculty and staff provided training and technical assistance through the Kansas Inservice Training System (KITS), the state’s training program for early childhood special education and early intervention professionals, reaching 4,209 teachers, related service providers and administrators, with a potential impact on 36,978 children and families.

LSI Parsons offered the KITS 22nd Annual Summer Institute that focused on partnerships in early intervention and early childhood special education to apply recommended practice in early childhood services.

LSI Parsons also partnered with the University of Connecticut, the University of Oregon and Florida State University as part of the National Early Childhood Personnel Center. Partners will identify cross-disciplinary standards for personnel in early childhood and provide technical assistance to support state systems for professional development.
Faculty and staff developed a statewide training program for dissemination of the Kansas Early Learning Standards. They also worked with the KU Department of Social Welfare to conduct research on early identification and intervention strategies to reduce the effects of toxic stress on children and families.

Faculty and staff collaborated with investigators at Texas Tech University to develop an instrument to assess transition difficulties that trigger problem behavior in individuals with autism and other developmental disabilities.

With funding from the Office of Special Education Programs, LSI Parsons developed specialized software and training procedures for teachers to prepare children for hearing assessments who do not follow verbal instructions.

With funding from the National Institutes of Health (NIH), LSI Parsons researchers collaborated with Johns Hopkins and the University of Massachusetts Medical Center to develop treatments for self-injurious and aggressive behavior.

Three NIH-funded post-doctoral trainees at LSI Parsons accepted faculty or advanced research positions at research universities. Two are assistant professors in communication disorders and one is doing further post-doctoral work.

**Merrill Advanced Studies Center**

The Merrill Advanced Studies Center, established in 1990 with an endowment from Virginia Urban Merrill and Fred Merrill, is a catalyst for scholarship on disabilities and policies that shape university research. Merrill conferences and publications establish new directions and build collaborative projects in both science and policy. World-class experts often meet as a group for the first time at Merrill conferences and go on to develop national projects that answer key questions in science. The Center publishes books on topics relevant to developmental disabilities and makes policy papers available online and in print. The Merrill web site at KU has fact sheets and discussions on science and policy for the general public.

Mabel L. Rice, Ph.D., Director

Contact: 785 864-4570, merrill.ku.edu

**FY 2014–2015 Highlights**

The 19th Annual Merrill Research Retreat was held July 22-24, 2015, at the Lied Lodge and Conference Center on the theme, “Research Innovation as a Pathway to the Future.” There were 23 attendees at the invitation-only conference, including the keynote speaker Ruth Watkins, provost and senior vice president for Academic Affairs at the University of Utah, and researchers and research officers from KU, the KU Medical Center, Kansas State University, Iowa State University, University of Iowa and the University of Nebraska. A white paper from the 18th annual Research Retreat on the topic, Planning for Future Research in Public Universities in Uncertain Times, was published and posted to the website of the Merrill Advanced Studies Center.

**Research and Training Center on Independent Living**

The Research and Training Center on Independent Living (RTC/IL) has a 35-year history of conducting disability research, providing training and transferring knowledge to practice. The Center furthers independent living for people with disabilities through scientifically sound, theoretically driven sustainable interventions and measures that lead to effective community living solutions and policy change. Center researchers work closely with consumers and service providers to develop research and products that meet their critical needs. The Center also partners with other universities and agencies to improve the health and participation of people with disabilities.

Glen W. White, Ph.D., Director

Martha J. Hodgesmith, J.D., Associate Director

Jean Ann Summers, Ph.D., Research Director

Contact: 785 864-4095, rtcil.org

**FY 2014–2015 Highlights**

People with disabilities want to participate fully in their communities. Center researchers are developing tools and resources to support participation in areas including community accessibility, health care, employment and policy.

The CHEC (Community Health Environment Checklist) enables people to rate the usability of businesses and services in their communities and then share that information through an online map. The Center produced a video to promote use of the CHEC, and Glen White is negotiating with AARP to incorporate the CHEC into an initiative on livable communities.

Good health is critical to one’s ability to participate in life and especially affects continuity of community living for people with disabilities. Jean Ann Summers and Dot Nary are developing a health promotion assistance tool for use by staff members at community-based organizations that serve people with disabilities.

Access to health care can also be problematic. Martha Hodgesmith and Val Renault collaborated with the Disability Rights Center of Kansas to learn about the health care experiences of Kansans with brain injuries. Their report on Improving Access to Health Care for Kansans with Brain Injuries recommends state policy changes.

For many Kansans with disabilities, support for living in the community is provided by the state’s Medicaid home and community-based services (HCBS). Hodgesmith, Nary and Renault are working with KU’s Center for Research on Aging and Disability Options to develop a new HCBS-eligibility assessment tool for the state of Kansas.

Another project helps centers for independent living (CILs) build their capacity to serve people with disabilities. In partnership with KU’s Community Tool Box, White, Jerry Schultz and colleagues at the Work Group for Community Health and Development are helping nine CILs in five states develop their evidence base for successful changes in community conditions that allow people with disabilities to participate more fully. Employment is also an important area of participation. Hodgesmith and Renault are part of a Kansas collaborative called the Employment Systems Change Coalition that is researching ways to make system and policy changes in the state to improve the employment outcomes for Kansans with disabilities.

Home visitability is an issue for people with mobility disabilities that Nary is researching. She offers concrete advice on how people can modify their homes to enable all friends and family members to visit in a guide for health care providers titled “Making Homes More ‘Visitable’ for Wheelchair Users and Potential Hosts,” published in the Archives of Physical Medicine and Rehabilitation.

Students with disabilities who complete college are more likely to be employed, but only 12.5 percent of students with disabilities who are enrolled in post-secondary education earn a degree. In the “Access to Success” project, Summers and White are training Kansas community college students to request the accommodations they need under the Americans with Disabilities Act (ADA) to succeed in their post-secondary education.

Full participation in life sometimes involves air travel. White continues working with Delta Air Lines on outreach to passengers with disabilities. He partnered with the Life Span Institute’s Communications team to create an instructional video for Delta customers who use mobility devices.

Renault discussed the Center’s internationally known media stylebook, Guidelines: How to Write and Report About People with Disabilities, for a medical audience at the Heartland Genetics Services Collaborative annual conference last fall.

The Center also celebrated the 25th anniversary of the ADA this year. Nary spoke at the city of Lawrence’s public celebration of this landmark civil rights legislation and Hodgesmith spoke at a Dole Institute of Politics event.

**SWIFT (Schoolwide Integrated Framework for Transformation) Center**

The Schoolwide Integrated Framework for Transformation (SWIFT) Center was launched in October 2012 with funding from the U.S. Department of Education, Office of Special Education Programs. SWIFT provides technical assistance to urban, rural and high-need schools and districts to improve outcomes for all students, including students with disabilities and those with the most extensive support needs. SWIFT accomplishes its goals by partnering with state educational agencies, districts, schools and their communities to transform whole education systems into excellent teaching and learning environments that practice equity-based inclusion of all children.

Wayne Sailor, Ph.D., Director

Amy McCart, Ph.D., Co-Director

Contact: 785 864-6844, swift@ku.edu
FY 2014-2015 Highlights

The SWIFT Center became LSU’s 14th affiliated center in May 2015. OSEP awarded SWIFT continuation funding for the next two years of the initial five-year award.

SWIFT continued to facilitate implementation of integrated educational systems in Maryland, Mississippi, New Hampshire, Oregon and Vermont. Seventeen districts and 67 schools in these states completed their second year of transformation work and engaged in summer professional learning institutes around their state-specific priorities.

During implementation activities, SWIFT modeled and coached hundreds of state, district and school leaders to build their capacities to sustain integrated education after technical assistance resources cease. These five state partners also began scaling up SWIFT to additional districts, and many districts began scaling up to additional schools for the 2015-16 academic year. SWIFT expanded its national knowledge bank of resources and shared information about integrating education systems. Some of the resources made available in FY 2014-15 include:

• “SWIFT-in-60,” a 10-part series of one-minute videos showing how SWIFT features are practiced in successful inclusive schools.
• Issue Briefs on the intersection of SWIFT and the White House’s My Brother’s Keeper initiative for boys and young men of color; school discipline policy considerations; and policies that support trusting school-family partnerships.
• SWIFT Talk blogs, monthly newsletters and social media about real inclusive education experiences and perspectives in families, schools and communities.
• National presentations to share SWIFT’s features and technical assistance practices.
• A technical adequacy report for the SWIFT Fidelity of Implementation Tool (SWIFT-FIT) for understanding the extent to which SWIFT features are implemented in a school setting, which is useful for planning technical assistance content and identifying relationships among the SWIFT features and student outcomes.
• An online training system for SWIFT-FIT assessors to ensure reliability of results.

In addition, a special issue of Research and Practice for Persons with Severe Disabilities is due out in fall 2015 that will include six articles relating lessons SWIFT learned from a far-reaching knowledge development study of selected successful inclusive schools.

SWIFT completed initial development of the SWIFT Data Wall, a web-based tool to integrate and link multiple data sources in unique ways that help educators, schools and districts make data-based administrative and instructional decisions. The SWIFT Data Wall has entered into a pilot phase with a SWIFT partner district.

The SWIFT Feature Introduction Guide, or SWIFT-FIG, is a web-based learning tool developed during FY 2014-15. The tool includes videos with discussion guides for in-depth professional learning experiences; introductory presentations for school or district leaders to use to teach others about SWIFT features; and suggested steps and key resources any school, not just SWIFT partners, can use to begin transformation into schools that support all students. This resource is accessed via the SWIFT website, swiftschools.org.

Work Group for Community Health and Development

The mission of the KU Work Group is to support community health and development through collaborative research and evaluation, teaching and training, and technical support and capacity building. Established in 1975, the KU Work Group joined the Life Span Institute in 1990 and has developed widely used capabilities for community-based participatory research and building capacity for community work. It was designated as a World Health Organization Collaborating Centre for Community Health and Development in 2004.

Vincent T. Francisco, Ph.D., Co-Director
Jerry A. Schultz, Ph.D., Co-Director
Stephen B. Fawcett, Ph.D., Senior Advisor/Former Co-Director
Contact: 785 864-0533, communityhealth.ku.edu

FY 2014-15 Highlights

The Work Group celebrated its 40th anniversary. Founder Steve Fawcett retired as director in August 2015 but remains actively engaged part-time as senior advisor to the Work Group and co-director of the WHO Collaborating Centre. Vince Francisco re-joined the Work Group as co-director of the center and as Kansas Health Foundation Professor of Community Leadership in the Department of Applied Behavioral Science.

Nearly 5.8 million users from 230 countries accessed the Community Tool Box this year. The Robert Wood Johnson Foundation awarded a $250,000 grant to plan for the long-term sustainability of the Work Group and the Community Tool Box. Translation is underway to extend global access through Spanish, Arabic, French, Portuguese, Mandarin Chinese and Russian. In July 2015 Christina Holt presented the Community Tool Box as a resource for citizen engagement on sustainable development goals at the United Nations headquarters. A second round of the “Out of the Box Prize” in 2015 will honor innovative work in communities worldwide.

The Work Group led the community measurement aspect of the National Heart, Lung and Blood Institute/National Institutes of Health National Healthy Communities Study to examine how community programs and policies shape physical activity, nutrition and healthy weight of children. Engaging 130 communities and 5,000 children, the study is the largest of its kind.

The Academic Health Department partnership is building a shared research program and enhancing the capacity of Lawrence-Douglas County Health Department (LDCHD) staff, KU students and Work Group staff to implement core functions and essential services of public health in Douglas County. In 2015 the LDCHD received national accreditation from the Public Health Accreditation Board.

Vicki Collie-Akers and Work Group team members led the creation of a comprehensive community health assessment for Geary County, Kan.

A long-term research partnership with the Latino Health for All Coalition in Kansas City, Kan., continues with the mission of reducing risk for diabetes and cardiovascular diseases by promoting physical activity, healthy nutrition and access to health services for the Latino community. With funding from NIH, CDC REACH, and local foundations, the coalition continues to improve conditions for health and health equity.

Work Group Associate Director Jomella Watson-Thompson presented at an Institute of Medicine roundtable on the role of communities in population health improvement.

As evaluation partner for the national Together on Diabetes initiative to reduce health disparities, the Work Group supports data collection and development of empirical case studies in a $20 million initiative funded by the Bristol-Myers Squibb Foundation.

The Work Group partnered with the WHO Regional Office for Africa on empirical case studies of the effects of Ebola response efforts in “bending the curve” in Liberia. In 2014 Fawcett was “enskinned” as development chief (Naba Amalteg) for the Binduri district in northeast Ghana as part of technical cooperation with the University for Development Studies in Tamale, Ghana.

Articles:
Holt co-authored “The Community Tool Box, a Comprehensive Tool and a Sample of What You Will Find There: Community Assessment Methods – Conducting a SWOT Analysis” in the Global Journal of Community Psychology Practice.
Fawcett and Sepers co-authored an article on participatory evaluation of enrollment in the Affordable Care Act in the American Journal of Public Health (2015).
Life Span Institute Affiliated Investigators

David F. Albertini  Francesca Duncan  Holly R. Hull  Jackob Moskovitz  Joseph E. Spradlin*
Jane B. Atwater  Winifred Dunn  Yolanda K. Jackson  Nancy A. Muma  Hinrich Staecker
Marilyn M. Auit  Dianne Durham  Rene Jamison  Dorothy E. Nary  John A. Stanford
Kathleen M. Baggett  David J. Ekerdt  David P. Jarmlowicz  Pamela L. Neidert  Jeffrey L. Staudinger
Tamara Baker  Kathy A. Ellerbeck  Chet D. Johnson  Diane C. Nielsen  Ric G. Steele, Jr.
James D. Basham  James Ellis  David K. Johnson  Hiroshi Nishimune  Holly L. Storkel
Constance C. Beecher  Morris D. Faiman  Michael A. Johnson  Patricia Noonan  Debra K. Sullivan
Nancy E. Berman  Aron W. Fenton  Debra M. Kamps  Randolph J. Nudo  Andrei Surguchov
Kathryn M. Bigelow  Marc E. Fey  Susan J. Kemper  Susan Palmer  Russel H. Swerdlow
Martha J. Blue-Banning  Robert Fiorentino  Stephen Kingsmore  Soumen Paul  Rebecca Swinburne Romine
Marco Bortolato  Paula J. Fite  William H. Kinsey  John P. Poggio  Kathy S. Thiemann-Bourque
Nancy C. Brady  Candace K. Fleming  Michael J. Knight  Clifton Pye  Kelli Thomas
Irina Brasseur Hock  Anjali J. Forber Pratt  Kostas Kokkinakis  Jerry A. Rea  Jomella W. Thompson
Mindy Sittner Bridges  Stephen C. Fowler  Elizabeth Kozleski  Gregory A. Reed  Lisa D. Timmons
William M. Brooks  Vincent T. Francisco  T. Rajendra Kumar  Mabel L. Rice  Ann P. Turnbull
Jonathan S. Brumberg  Rachel L. Freeman  Jennifer Kurth  Suzanne M. Robinson  H. Rutherford Turnbull III
Janis A. Bulgren  Alison Gabriele  Mark J. Landau  Amber Rowland  Michael S. Vitevitch
Merlin G. Butler  Fei Philip Gao  Kathleen L. Lane  Mohammad Rumi  Dale Walker
Jay F. Buzhardt  Amy Gaumer Erickson  Judith M. LeBlanc*  Irfan Saadi  Robert E. Ward
Susan E. Carlson  Bruce Frey  Beth Levant  Sara H. Sack  Steven F. Warren
Judith J. Carta  William M. Gillispie  Steven M. LeVine  Wayne S. Sailor  Richard A. Washburn
Paul D. Cheney  Patricia Graner  David P. Lindeman  Brenda Salley  Amber Watts
Mark Chertoff  Charles R. Greenwood  Diane Frome Loeb  Kathryn J. Saunders  Jane R. Wegner
Lane K. Christenson  Judith M.S. Gross  Erik A. Lundquist  Cary R. Savage  Michael L. Wehmeyer
Julie Christianson  Kathleen M. Gustafson  Susan M. Lunte  Richard L. Schiefelbusch*
Vicki Collie-Akers  Jean P. Hall  Janet G. Marquis*  Christian Schoeneich  Carl P. Weiner
John Colombo  Nancy A. Hamilton  Rose A. Mason  Stephen R. Schroeder*  Glen W. White
Jana Craig-Hare  Susan P. Harvey  Benjamin A. Mason  Jerry A. Schultz  Dean C. Williams
Christopher C. Cushing  Leslie L. Heckert  Kenneth E. McCarson  Joan A. Sereno  Anne P. Williford
Donald D. Deshler  Linda S. Heitzman-Powell  Amy McCart  Karrie A. Shogren  Howard Wills
Nanveet K. Dhillon  Michael F. Hock  Daryl F. Mellard  Sheila J. Simmons  Shirley Yan
Florence D. DiGennaro Reed  Martha J. Hodgesmith  Edward L. Meyen  Peter G. Smith  Liqin Zhao
Yafeng Dong  Lesa R. Hoffman  Elias K. Michaelis  Sean J. Smith  Emeritus*
Joseph E. Donnelly  Christina M. Holt  Matthew W. Mosconi  Michael J. Soares  
Claudia L. Dozier  Eva Horn  Mary E. Morningstar  Marylou V. Solbrig

*Emeritus