



University of Kansas School of Allied Health  
**Research & Scholarship Report**  
**2002-2004**

*Building Bridges Through Leadership in Allied Health Research*

## Introduction

The School of Allied Health (SAH) is pleased to present its research report for 2002–2004. We are hopeful that this information will be of interest to fellow scientists from within the University and Kansas City area, who may discover potential avenues for collaboration. We also hope to attract the interest of students wishing to pursue careers in the allied health sciences.

The SAH is the most diverse academic unit within the University of Kansas Medical Center, comprising 9 different departments of health professions education. Research activities within the School reflect this wealth of diversity. Various agencies within the federal government, primarily the National Institutes of Health (NIH) and the U.S. Department of Education, provided over \$4.6 million of research support for the School from 2002-2004. KU's dramatic improvement was reflected when the SAH was ranked 12<sup>th</sup> in the nation in 2003 for NIH funding to schools of allied health in public universities.

The SAH 2000 – 2003 *Strategic Plan* emphasized recruitment and retention of research faculty, research collaboration among the departments in the SAH and other KU Schools and Centers, and strengthening the School's research infrastructure. The goals set forth in this Plan have all been met by the appointment of a part-time Associate Dean of Research for the School; the hiring of a full-time biostatistician, whose services are shared between the SAH and the School of Nursing; utilization of the services of the Office of Nursing Grants and Research for grant preparation and submissions; and increasing the internal funds available to support seed projects that have the potential to lead to significant external support.

Finally, two new Ph.D. programs, one in the Department of Physical Therapy and Rehabilitation Sciences, and the other in the Department of Occupational Therapy Education, were approved within the past three years and are well underway. As a result of these efforts, a research-intensive environment within the School has been created that not only advances the allied health sciences, but also promotes the health and well-being of our community and state.

The following pages list the research-related publications, presentations and grant activity for faculty members from the School of Allied Health. As you will see from reviewing this information, much of the research in the School can be classified under the general headings of neuroscience and lifespan studies - areas designated for emphasis in the strategic research plan for KUMC.

As you review the material in this report, please feel free to contact Dr. Karen Miller, Senior Vice Chancellor and Dean, or me should you have questions about any aspect of research within the SAH, or would like more information about specific areas of interest.

A handwritten signature in black ink that reads "John A. Ferraro". The signature is written in a cursive style with a large, looped initial "J".

John Ferraro, Ph.D.  
Associate Dean for Research

# **SCHOOL OF ALLIED HEALTH RESEARCH AND SCHOLARSHIP REPORT 2002-2004**

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# SCHOOL OF ALLIED HEALTH

## RESEARCH AND SCHOLARSHIP REPORT

### 2002-2004

(Listed by Departments)

**DEPARTMENT OF BIOMETRY**  
G034 Olathe Pavillion  
588-5566

**Khatab M. Hassanein, Ph.D, Professor and Chairman**

Publications:

Rigler, S.K., Wallace, D., Studenski, S., Perera, S., Brown, E.F., Redford, L., and Webb, M. (2002). Urban-Rural Differences in Amitriptyline Use Among Nursing Facility Residents. *Journal of the American Medical Directors Association*, 3, 5-11.

Black, M.D., Olney, B., Vitztum, C., and Hassanein, K.M. (2003). Administering Caudal Anesthesia at Completion of Clubfoot Surgery Does Not Affect Postoperative Use of Narcotics. *The American Journal of Orthopedics*, 32(3), 130-132.

Reeves, K.D. and Hassanein, K.M., (2003). Long Term Effects of Dextrose Prolotherapy for Anterior Cruciate Ligament Laxity. *Alternative Therapies*, 9(3), 58-62.

Hassanein, K.M. and Brown, E.F. (2003). Estimation of Bonferroni and Total Time on Test Curve Using Optimally Selected Order Statistics in Large Samples. *Journal of Statistical Research*, 37(1), 31-42.

Rigler, S.K., Wallace, D., Studenski, S., Redford, L., Brown, E.F., Webb, M., and Perera, S., (2003). Urban-Rural Patterns of Increasing Antidepressant Use Among Nursing Facility Residents. *Journal of the American Medical Directors Association*, 4, 67-73.

Grant Activity:

Assessing the Role of Antioxidants in Ovarian Cancer  
2002-04 (Departmental Role—Statistical Consultant)  
Cancer Treatment Research Foundation

Urban-Rural Sedative and Anxiolytic Use in Long-Term Care  
9/01-8/06 (Departmental role—Data management)

Rural Dwelling Older Adults: CPAP Adherence Support In Home Telehealth/Internet  
2000-2005 (Departmental role—Data management)  
NIH

Care Planning Integrity & Nursing Home Resident Outcomes  
(Departmental role—Data Management)  
NIH NINR

A Forty-Year Followup of Men at High Risk for Alcoholism  
05/01/2002 to 04/30/2005 (Departmental role—Data management)  
NIAAA Assignment # 1 R21 AA13374-01

Kansas Nursing Facility Project  
10/2002 – 10/2003; 11/2003 – 11/2004 (Departmental role—Data management)  
KDHE and KDOA

Real-time Palpation in Aging for Improved Detection and Discrimination of Breast Abnormalities  
2003 – 2006 (Departmental role—Statistical consultant)  
United States Army

**DEPARTMENT OF CLINICAL LABORATORY SCIENCES**  
Room 1014, The University of Kansas Hospital  
588-5222

**Eric Elsinghorst, Ph.D, Research Assistant Professor**

Publications:

Elsinghorst, E. A. (2002). Enterotoxigenic Escherichia coli. In M. S. Donnenberg (Ed.), Escherichia coli: Virulence Mechanisms of a Versatile Pathogen. (pp. 156-187). Academic Press.

Presentations:

Elsinghorst, E. A., Griffin, P., and Pezzino, G. "Identification of Missed Opportunities for the Diagnosis and Treatment of Latent Tuberculosis Infections." National Tuberculosis Controllers Association, Atlanta, GA, 9-11 June 2004.

**DEPARTMENT OF DIETETICS AND NUTRITION**  
4019 Delp Pavillion  
588-5355

**Adrienne Moore Baxter, M.S., R.D., L.D., Instructor**

Publications

It's the Calories, Not the Carbs: The Myths and Truths of Carbohydrates, book foreword for Fleishman-Hillard, Inc., authored by Glenn A Gaesser, Ph.D and Karin Kratina, Ph.D, R.D., 2004.

Annals of Pharmacotherapy journal review, "Herbal Weight Loss Supplement Misadventures per a Regional Poison Center," 2004.

Annals of Pharmacotherapy Journal Review, "Pharmacy Patrons' Understanding of 'Suggested Use' and 'Disclaimer' statements on Herbal Product Labels," February 2003.

Presentations:

Baxter, Adrienne Moore, "Supplement specifics for the client with renal insufficiency," National Kidney Foundation, Chronic Wellness: A Seminar for Renal Professionals. Kansas City and St. Louis, MO, May and November 2004.

Baxter, Adrienne Moore, "Partnering with clients to make dietary and herbal supplement decisions," Mid America Coalition on Health Care, Kansas City, MO, July 2002, Kansas Dietetic Association & Missouri Dietetic Association Meeting.

Baxter, Adrienne Moore, "Herbal use: Focus on pregnancy, breast-feeding, infancy and childhood," Am. Academy of Family Physicians, Leawood KS, July 2002. WIC Technical Meeting Kansas Department of Health and Environment Bureau for Children, Youth and Families, Salina, KS.

Grant Activity:

Health Education Training Centers (HETC) in Kansas  
2003-September 2005 (Subcontractor)  
Bureau of Health Professions, United States Department of Health and Human Services

A Clinical Study to Evaluate the Safety and Efficacy of the Transcend<sup>®</sup> Implantable Gastric Stimulation System for Weight Loss  
2001-January 2007 (Consultant/counselor, support group facilitator)  
Transneuronix, Inc.

Spiritually Based Rural Telehealth Weight Management  
2004-2006 (Consultant, develop materials, supervise/train)  
Health Resources and Services Administration, U.S. Department of Health and Human Services

## **Peter Beyer, M.S., R.D., L.D., Associate Professor**

### Publications:

Myers, E.F., Beyer, P.L., Geiger, C.J., (2003). American Dietetic Association. Research activities and perspectives of research members of the American Dietetic Association. *Journal of the American Dietetic Association*, 103(9), 1235-43.

Beyer, P.L. (2004). Chapter 1, Digestion and Absorption. In Krause' Food, Nutrition and Diet Therapy. (Eds.) Mahon, L.K. & Escott-Stump, S. 11<sup>th</sup> Ed. Philadelphia: W.B. Saunders Co.

Beyer, P.L. (2004). Chapter 29, Nutrition in Upper GI Disorders. In Krause' Food, Nutrition and Diet Therapy. (Eds.) Mahon, L.K. & Escott-Stump, S. 11<sup>th</sup> Ed. Philadelphia: W.B. Saunders Co.

Beyer, P.L. (2004). Chapter 30, Nutrition in Lower GI Disorders. In Krause' Food, Nutrition and Diet Therapy. (Eds.) Mahon, L.K. & Escott-Stump, S. 11<sup>th</sup> Ed. Philadelphia: W.B. Saunders Co.

Beyer, P.L. (2003). Chapter 17, Vegetarian Diets. In Van Way, C. Nutrition Secrets, 2<sup>nd</sup> edit. Philadelphia: W.B. Saunders Co.

Beyer, P.L. (2002). Chapter 17. Complications of enteral feedings. In, Contemporary Nutrition Support Practice. (Eds.) Matarese L.E., and Gottschlich M.M., 2<sup>nd</sup> Ed. Philadelphia: W.B. Saunders Co.

Beyer, P.L., Caviar, E., McCallum, R. (2004). Fructose intake at current levels in the US may cause GI Distress. *Journal of the American Diet Association* ( In press).

Beyer, P.L., (2005 ) Chapter 17, (In Press) Nutrition and Gastrointestinal Disorders in the Elderly. In *Nutrition Care* manual for long term care. American Dietetic Association.

### Presentations:

Beyer, P.L., "Nutrition Care process and Nutrition diagnoses" Kansas Dietetic Association, November 2004 Manhattan, KS and March 2005, Kansas City, KS.

Beyer, P.L., "Update on Pathology and Management of Diarrhea: Dietary Factors and Diarrhea—Time for more respect," Southern Regional Meeting (Seven Medical Societies, including Southern "Gut Club" New Orleans, LA, March 2005.

Beyer, P.L., "GI update: Nutrition and gastrointestinal disorders," Kansas City Dietetic Association, Kansas City, KS, April 2004.

Beyer, P.L., "Nutrition and wound healing," Kaw Valley Dietetic Association, Topeka, KS, February 2004.

Beyer, P.L., "Weight control diets for diabetes and cardiovascular disease," Grand Rounds and Regional Area VA Medical Society, Topeka, KS, November 2003.

Beyer, P.L., "Upper and lower GI symptoms in diabetes and matched controls," American College of Gastroenterology, Baltimore, MD, October 2003.

Beyer, P.L., "Diet and irritable bowel syndrome," Regional GI Update, Kansas City, MO, April 2003.

## Susan Carlson, Ph.D., Midwest Dairy Council Professor

### Publications:

- Gaines, J., Berman, N., & Carlson, S. E., (2004). Reduced brain docosahexaenoic acid during development. In Unraveling Lipid Metabolism with Microarrays and Metabolomics. (Eds.) Berger, A. & Roberts, M. Marcel Dekker.
- Levant, B., Radel, J.D., & Carlson, S.E. (2004). Decreased brain docosahexaenoic acid during development alters dopamine-related behaviors in adult rats that are differentially affected by dietary remediation. *Behav. Brain Res.*, 152, 49-57.
- Colombo, J., Kannass, K.N., Shaddy, D.J., Kundurthi, S., Maikranz, J.M., & Carlson, S.E. (2004). Maternal DHA and the development of attention in infancy and toddlerhood. *Child Development*, 75, 1254-1267.
- Smuts, C.M., Huang, M., Mundy, D., Plasse, T., Jamor, S., & Carlson, S.E. (2003). A randomized trial of docosahexaenoic acid supplementation during the third trimester of pregnancy. *Obstet Gynecol*, 101, 469-479.
- Smuts, C.M., Peeples, J.M., Borod, E., & Carlson, S.E. (2003). High-docosahexaenoic acid eggs: Feasibility as a means to enhance mother and infant DHA status. *Lipids*, 38, 407-14.
- Carlson, S.E. (2003). Post-discharge nutrition of preterm infants. In Tsang RC et al. (Ed.) Nutrition Needs of the Preterm Infant: Scientific and Practical Guidelines, Williams and Watkins.
- Un, S. & Carlson, S.E. (2003). Very long chain fatty acids in the developing retina and brain. In Polin, R. & Fox W. (Eds.) Fetal and Neonatal Physiology, 3<sup>rd</sup> ed. Philadelphia: W.B. Saunders Co.
- Carlson, S.E., Montalvo, M.B, Ponder, D.L., Werkman, S.H., & Korones, S.B. (2002) Lower incidence of necrotizing enterocolitis in infants fed a preterm formula with egg phospholipids. Republished in *AOCS Monograph of ILPS*, Vienna.

### Presentations:

- Carlson, S.E., "Increased DHA intake during the last trimester of pregnancy may extend the duration of gestation and enhance foetal growth. And Possible mechanisms underlying behavioral effects of DHA and AA during development," Mother and Newborn: Present and Future (Pediatricians/Neonatologists), Milan, 11-12 December 2004.
- Carlson, S.E., "DHA for moms and babies," Masters of Pediatrics Meeting, Ft. Lauderdale, FL, 29 January 2004.
- Carlson, S.E., "Human milk as a model for infant formula," Bristol Meyers Squibb/Mead Johnson Nutritionals colloquium, New Harmony, IN, June 2003.
- Carlson, S.E., "Maternal long chain fatty acid metabolism and nutrition: Influences on pregnancy outcome and neonatal development," Mother and Infant Conference, Montreal, Canada, June 2003.

Carlson, S.E., "The role of LCPUFA in infant development," Fukuoka, Japan, May 2003.

Carlson, S.E., "Brain DHA during development and behavior," KCALSI, Kansas City, MO, March 2003.

Carlson, S.E., "DHA supplementation and pregnancy outcome," Maternal Fetal Medicine Nutrition Interest Group, San Francisco, CA, February 2003.

Carlson, S.E., "Dietary fatty acids and the brain," IUPUI School of Medicine, IN, November 2002.

Carlson, S.E., Pediatric Grand Rounds Des Moines, IA, November 2002.

Carlson, S.E., "Phospholipids in infant nutrition: plausible and researchable roles in gut function," International Phospholipid Congress, Vienna, September 2002.

Carlson, S.E., "High-DHA eggs and gestation duration," AOCs Meeting, Taipei, August 2002.

Carlson, S.E., "Long chain fatty acids and maternal and fetal health; DHA supplementation and fetal and neonatal development," National Maternal Nutrition Intensive Course, Minneapolis, MN, July 2002.

#### Grant Activity:

The effects of infant formula supplemented with long chain polyunsaturated fatty acids on visual and cognitive development in term infants

August 2003-August 2006 (PI)

Mead Johnson Nutritionals (Bristol Myers Squibb), Payment is based on visits completed, conservatively \$742,524 (3 years)

Models for studying individual components of human milk and relationships among those components as they relate to optimal formula composition

March 2004-March 2005 (2 years) (PI)

Mead Johnson Nutritionals, \$253,011

Brain DHA, dopamine and behavior: Roles in ADHD

Sept 30, 2004-June 30, 2007 1R01 MH067938 (Co-I)

\$450,000

Brain, LCPUFAs and Maternal Mental Health

September 15, 2004-June 30, 2007, 1R01 MH071599 (Co-I)

\$450,000

**Mary Hise, Ph.D. R.D., CNSD, Assistant Professor and Clinical Director, Nutrition Support Service, University of Kansas Hospital**

#### Publications:

Hise, M.E., Kattelman, K. & Parkhurst, M. Evidence-Based Clinical Practice: Dispelling the Myths. *Nutrition in Clinical Practice* (in press).

Compher, C., Stenberg, A., Hise, M. & Kinosian, B.P. Precision and Comparability of Medgem with Deltatrac Calorimeter Measures of Resting Metabolic Rate in a Stable Nutrition Support Cohort. *European Journal of Clinical Nutrition* (in press).

Grunwald, G.K., Sullivan, D.K., Hise, M., Donnelly, J.E., Jacobsen, D.J., Johnson, S.L. & Hill, J.O. (2003). Number of days, number of subjects, and sources of variation in longitudinal intervention or cross-over feeding trials with multiple days of measurement. *British Journal of Nutrition*, 90, 1087-1095.

Hise, M.E. & Kattelman, K.K. (June 2003). Update from the Enteral Nutrition Protocol Evidence Grading Committee. *Support Line*, 25, 17.

Donnelly, J.E., Hill, J.O., Jacobsen, D.J., Potteiger, J., Sullivan, D.K., Johnson, S.L, Heelan, K., Hise, M., Fennessey, P.V., Sonko, B., Sharp, T., Jakecic, J.M., Blair, S.N., Tran, Z.V., Mayo, M., Gibson, C. & Washburn, R.A. (2003). Effects of a 16 month randomized controlled exercise trial on body weight and composition in young, overweight men and women: the Midwest Exercise Trial. *Arch Intern Med*, 163, 1343-50.

Hise, M.E., Jenson, G. & Han-Markey, T. (2005). Metabolism and life cycle: Pregnancy and Lactation, Peds, Elderly in the 4<sup>th</sup> Edition: Clinical Nutrition: Enteral and Tube Feeding Rolandelli, R.H., Bankhead, R., Boullata, J.I. & Compher CW. Philadelphia: W.B Saunders Co. (in press)

#### Presentations:

Pazianas, M., Hise, M., Compher, C., Benedict, S., Brown, J.C. & Kinosian, B., "Systemic Inflammatory Mediators in Calcium and Phosphate homeostasis." The American Society of Bone and Mineral Research, 26<sup>th</sup> Annual Meeting, 1-5 October 2004.

Hise ME, Compher C, Harlan L, Kohlmeier J, Benedict S, Brown J, Gajewski B, Kinosian B., "Inflammatory Mediators and Immune Function Are Altered in Home Parenteral Nutrition Patients." Nutrition Week, Scientific Paper Session, Las Vegas, NV, 9-12 February 2004.

Hise, M.E., "The Evidence Based Use of Intravenous Fat Emulsions in Adult Patients." Baxter Advisory Board on Parenteral Nutrition, Chicago IL, 22 October 2004.

Hise, M.E. & Parkhurst, M., "Update on parenteral nutrition," Infusion Clinical Excellence Symposium, University of Kansas Medical Center, Kansas City, KS, 14 May 2004.

Hise, M.E., "Enteral nutritional support in the stroke patient," 15<sup>th</sup> Annual Symposium on the Management of Cardiovascular and Cerebrovascular Disease. Wichita, KS, 5-7 May 2004.

Hise, M.E. & Kattelman, K., "Enteral nutrition in the Intensive Care Unit. A Critical Care Update," Sodexo Health Services in conjunction with Nutrition Week, Las Vegas, NV, 10 February 2004.

Hise, M.E. & Rollandelli, R.H., "Enteral nutrition: The foundation for current practice," Nutrition Week, Educational Session, Las Vegas, NV, 11 February 2004.

Hise, M.E., "Managing gastric residual volumes in your tube fed patient," Dietetics Practice Section Roundtables. Nutrition Week, Las Vegas, NV, 8 February 2004.

Hise, M.E., Kattelmann, K., & Compher, C., "Evidence based enteral feedings in the ICU," Educational Symposium FNCE 2003, San Antonio, TX, 26 October 2003.

Hermreck, B.R., Stein, M.N., Hise, M.E., "Scurvy: A Case Study." Nutrition Week 2003. San Antonio, TX, 20 January 2003.

Hise M.E., Moriarty P.M., Sullivan D.K. & Beyer P.L., "The impact of diet and exercise on carotid atherosclerosis." Am Diet Assoc Annual Meeting, Philadelphia, October 2002.

Hise, M.E., Dougherty, D.A. & Russell, M., "Collaboration strategies in healthcare: Sharpening your skills to be a strong team player," Am Diet Assoc Annual Meeting, Philadelphia, October 2002.

Hise, M.E., "America's eating behavior and trends in cardiovascular health," Central States Chapter of the American College of Sports Medicine, Kansas City, MO, October 2002.

#### Grant Activity:

Nutritional and Immune Parameters in Home Parenteral Nutrition Patients

03/01/2002-03/31/03 (PI)

University of Kansas Medical Center, School of Allied Health Research Grant

#### **Debra Sullivan, Ph.D., Associate Professor**

#### Publications:

Befort Cardador, C., Kaur, H., Nollen, N., Sullivan, D.K., Nazir, N., Choi, W.S., Hornberger, L. & Ahluwalia, J.S. Fruit, Vegetable, and Fat Intake among Black and White Adolescents: Associations with Home Availability and Food Consumption Settings. *Journal of American Dietetic Association* (in press).

Donnelly, J.E., Gibson, C., Hill, J.O., Jacobsen, D.J., Mayo, M., Smith, B.K., Sullivan, D.K. & Washburn, R.A.: Physical activity across the curriculum (PAAC). *Journal of Physical Education, Recreation and Dance* (in press).

Gunwald, G.K., Sullivan, D.K., Hise, M., Donnelly, J.E., Jacobsen, D.J., Johnson, S.L. & Hill, J.O. (2003). Number of days and number of subjects in two-period longitudinal intervention or cross-over feeding trials with multiple days of measurement. *British Journal of Nutrition*, 90, 1078-1095.

Donnelly, J.E., Kirk, E.K., Jacobsen, D.J., Hill, J.O. & Sullivan, D.K. (2003). Effects of 16-months of verified, supervised aerobic exercise on macronutrient intake in overweight men and women: the midwest exercise trial (MET). *American Journal of Clinical Nutrition*, 78, 950-956.

Sullivan, D.K., (2003). An ounce of prevention is worth a pound of cure. *Evidence-Based Preventive Medicine*. 1, 4-5. (P).

Donnelly, J.E., Hill, J.O., Jacobsen, D.J., Potteiger, J., Sullivan, D.K., Johnson, S.L. Heelan, K., Hise, M., Fennessey, P.V., Sonko, B., Sharp, T., Jakecic, J.M., Blair, S.N., Tran, Z.V., Mayo, M., Gibson, C. & Washburn, R.A. (2003). Effects of a 16 month randomized controlled exercise trial on body weight and composition in young, overweight men and women: the Midwest Exercise Trial. *Archives of Internal Medicine*, 163, 1343-50.

Sullivan, D.K., Legowksi, P.A., Jacobsen, D.J., Heelan, K.A., Johnson, S.L. & Donnelly, J.E. (2002). A low-fat afterschool snack improves the nutritional quality of elementary school children's diets. *Journal of American Dietetic Association*, 102, 707-10.

#### Presentations:

Sullivan, D.K., "Dietary management of Prader-Willi Syndrome," Accelerate the Future: Prader-Willi Association (USA) Research Task Force Meeting. Baltimore, MD. 19 November 2004.

Sullivan, D.K., "Targeting Snacks to Impact Children's Diets and Health." Interdisciplinary Research Conference, University of Kansas Medical Center, Kansas City, KS, 4 November 2004.

Sullivan, D.K., "The Influence of Snacking on Children's Diets and Health," St. Louis District Dairy Council Writers and Communicators Conference. St. Louis, MO, 21 October 2004.

Sullivan, D.K., "Optimal Nutrition for Children living near Chernoby." Project Restoration Conference. Kansas City, MO. 16 October 2004.

Sullivan, D.K., "Type 2 Diabetes Mellitus in Children," University of Kansas 6<sup>th</sup> Annual Conference on the Prevention and Treatment of Obesity. Kansas City, MO, 9 September 2004.

Sullivan D.K., "How to live to be 100 and enjoy it," University of Missouri at Kansas City's 1<sup>st</sup> Annual Alternative Medicine Symposium. Kansas City, MO. January 17, 2004.

Sullivan, D.K., "The physician's role in the fight against obesity: What do I do?" Nebraska Academy of Family Physicians annual meeting. Nebraska City, NE, 8 November 2003.

Sullivan, D.K., "The role of the school nurse in obesity: nutritional aspects," Annual meeting of School KS Nurses. Kansas City, KS, 22 October 2003.

Sullivan, D.K., "Weighing in on weight loss diets: What works? Central States Region of the American College of Sports Medicine Annual Meeting," Kansas City, MO, 10 October 2003.

Sullivan, D.K., "The terror within: Americans fight obesity with diet and supplements," Health Education Training Centers in Kansas Education Project. Hays, KS, 24 September 2003.

Sullivan, D.K., "The battle of the bulge. What is being done in Kansas to combat the obesity epidemic?" KUMC Alumni weekend. Kansas City, KS, 19 September 2003.

Sullivan, D.K., "The impact of diet and exercise on carotid artery atherosclerosis," Am Diet Assoc Annual Meeting. Philadelphia. October 2002.

Sullivan, D.K., "Strategies for treating the overweight and obese individual," (Moderator and Discussion leader). Childhood Obesity Symposium, Kansas City, MO, 6-7 September 2002.

Grant Activity:

Synergistic effect of dairy foods on metabolism: a mechanistic study  
01/01/04-12/31/05 (PI)  
Dairy Management, Inc., Directs \$219,137

Effects of increasing dairy product consumption on blood pressure in a multi-ethnic population of elementary school children  
08/01/01-06/30/04 (PI)  
Dairy Management, Inc., Directs \$222,264

Prevention of obesity by alteration of dietary fat  
01/01/01-12/31/05. (PI of subcontract)  
National Institutes of Health, Direct cost \$2,158,002, subcontract cost \$290,795

Long -term exercise, weight loss, and energy balance.  
04/01/05-03/31/10 (Co-I)  
National Institutes of Health. Direct Costs \$2,179,175

Physical activity across the curriculum  
01/01/03-12/31/08 (Co-I)  
National Institutes of Health, Direct costs \$1,200,000

Resistance training for the prevention of obesity  
07/01/03 -06/30/07 (Co-I)  
National Institutes of Health, Directs \$291,000

Prevention of obesity in YMCA daycare centers  
10/01/02-9/30/05 (Co-I)  
National Institutes of Health, Direct costs \$450,000

Kansas Get Moving  
07/01/04-06/30/06 (Co-I)  
Sunflower Foundation, Direct costs \$248,150

The effects of dairy intake on weight maintenance and metabolic profile  
11/1/03-10/31/06 (Co-I)  
Dairy Management, Inc., Directs \$ 95,262

Partnerships in health promotion  
09/01/02-8/30/04 (Co-I)  
HRSA Training grant

Training health care providers in prevention and treatment of obesity in children  
07/1/03-6/30/04 (Co-I)  
Sunflower Foundation, Directs \$113,670

Effects of ginseng and ginkgo on drug disposition in man  
08/01/01-12/31/04 (Co-I)  
National Institutes of Health, Direct costs \$1,118,776

African American smokers in low income housing  
04/01/00-03/31/04 (Co-I)  
National Cancer Institute, Direct cost \$1,299, 449

Smoking cessation and energy balance: a mechanistic study  
7/01-6/03 (Co-I)  
American Heart Association, \$110,000

Obesity among school-age children in Kansas  
7/02-6/03 (Co-I)  
Sunflower Foundation, \$149,994

Low carbohydrate vs low fat diet following weight loss for weight maintenance and prevention of  
weight re-gain  
01/01/03-12/0104 (Co-I)  
Atkins Foundation and Health Management Resources

**DEPARTMENT OF HEARING AND SPEECH**  
3031 H.C. Miller Building  
588-5937

**Lin Bian, Ph.D., Research Assistant Professor**

Publications:

Bian, L. (2004). Cochlear Compression: Effects of low-frequency biasing on quadratic distortion product otoacoustic emission. *J. Acoust. Soc. Am.*, *116* (6), 3559-3571.

Choi, C-H., Chertoff, M.E., Bian, L. & Lerner, D. (2004). Constructing a cochlear transducer function from the summing potential using a low-frequency bias tone. *J. Acoust. Soc. Am.* *116*, *116* (5), 2996-3007.

Bian, L., Linhardt, E.E., & Chertoff, M.E. (2003). Cochlear hysteresis: Observation with low-frequency modulated distortion product otoacoustic emissions. *J. Acoust. Soc. Am.*, *115* (5), 2159-2172.

Bian, L., Chertoff, Mark E. & Miller, Emily (2002). Deriving a cochlear transducer function from low-frequency modulation of distortion product otoacoustic emissions. *J. Acoust. Soc. Am.*, *112*(1), 198-210.

Presentations

Bian, Lin, "Spectral Features of Low-Frequency Modulation of DPOAEs," 28<sup>th</sup> Midwinter Meeting of the Association for Research in Otolaryngology, New Orleans, LA, 19-24 February 2005.

Bian, Lin & Chertoff, Mark E., "Low-Frequency Biasing of Quadratic of DPOAE," 28<sup>th</sup> Midwinter Meeting of the Association for Research in Otolaryngology, New Orleans, LA, 19-24 February 2005.

Bian, Lin & Chertoff, Mark E., "Double Modulation Pattern of DPOAEs Due to Low-frequency Biasing," 27<sup>th</sup> Midwinter Meeting of the Association for Research in Otolaryngology, Daytona Beach, FL, 21-26 February 2004.

Bian, Lin & Chertoff, Mark E., "Hysteresis in Cochlear Transduction Observed from Low-frequency modulation of Distortion Product Otoacoustic Emissions," 26<sup>th</sup> Midwinter Meeting of the Association for Research in Otolaryngology, Daytona Beach, FL, 22-27 February 2003.

Choi, Chul-Hee, Chertoff, Mark E. & Bian, Lin, "Deriving a Cochlear Transducer Function from the Summing Potential," 26<sup>th</sup> Midwinter Meeting of the Association for Research in Otolaryngology, Daytona Beach, FL, February 22-27, 2003.

Bian, Lin & Chertoff, Mark E., "Constructing a Cochlear Transducer Curve from DPOAEs," 25<sup>th</sup> Midwinter Meeting of the Association for Research in Otolaryngology, St. Petersburg Beach, FL, 27-31 January 2002.

### Grant Activity

Clinical Assessment of Cochlear Transducer Function Using Distortion Product Otoacoustic Emissions  
04/28/2003 (PI)  
Department of Health and Human Services, NIH- National Institute on Deafness and Other Communication Disorders (NIDCD)

### **Mary Carpenter, Ph.D., Associate Professor**

#### Publications:

Searl, J. & Carpenter, M.A. (2002). Acoustic cues to the voicing feature in tracheoesophageal speech. *J. of Speech, Language and Hearing Research*, 45, 282-294.

Stansberry, S., Carpenter, M.A. & McElroy, K. Reliability of Observations from Radiographic Swallow Studies. *Journal of Medical Speech–Language Pathology*. In press.

### **Mark Chertoff, Ph.D., Associate Professor**

#### Publication:

Chertoff, M.E., Yi, X. & Lichtenhan, J.T. (2003). Influence of hearing sensitivity on mechano-electric transduction. *Journal of Acoust. Soc. Am.* 114, (6), 3251-3263.

#### Presentations:

Bian, L., & Chertoff, M.E., “Hysteresis in cochlear transduction observed from low-frequency modulation of DPOAEs,” 26th meeting of the Association for research in Otolaryngology, Daytona Beach, FL, 2003.

Choi, Chul-Hee., Chertoff, M.E., & Bian, L., “Deriving a cochlear transducer function using the summing potential,” 26th meeting of the Association for research in Otolaryngology, Daytona Beach, FL, 2003

Lichtenhan, J.T., Chertoff, M.E., & Yi, X., “The influence of varying degrees of permanent hearing loss on a polynomial model of mechano-electric transduction,” 26th meeting of the Association for research in Otolaryngology, Daytona Beach, FL, 2003

#### Grant Activity:

Entered fifth year of five-year funding period for NIH-NINCDS study on mechano-electric transduction in the cochlea.

### **Debora Daniels, Ph.D., Clinical Assistant Professor**

#### Ph.D. Dissertation

The Relationship Between Sensory Processing and Temperament in Young Children. Successfully defended dissertation April 7, 2003.

## **John Ferraro, Ph.D., Doughty-Kemp Chairman and Professor**

### Publications:

Ferraro, J. (2002). Current State of Education in Audiology. *Current Issues in Otolaryngology & Head and Neck Surgery*, 10, 407 – 412 (Special Feature).

Ferraro, J.A. & Durrant, J.D. (2002). Electrocochleography. In: Katz, J. (Ed.), *Handbook of Clinical Audiology (5th Edition)*. Baltimore: Lippincott, Williams and Wilkins, 249-273.

Fabian, C., Kimler, B., Brady, D., Mayo, M., Chang, J., Ferraro, et al. (2002). A phase II breast cancer chemoprevention trial of oral DFMO: Breast tissue, imaging, and serum and urine biomarkers. *Clinical Cancer Research*, 8, 3105-3117.

Ferraro, J. (2002). *Hearing: Its Physiology and Pathophysiology*, by Aage R. Moller, Academic Press. Published book review for *Ear and Hearing*, 23: 166.

Devaiah, A., Dawson, K., Ferraro, J. & Ator, G. (2003). Utility of area curve ratio Electrocochleography in early Meniere Disease. *Arch Otolaryngol. Head Neck Surg*. 29, 547-551.

Ballachanda, B., Crawford, M., Ferraro, J. & Griffiths, S. (2003). Auditory Evoked Potentials – Audiologic Evaluation Working Group on Auditory Evoked Potential Measurements. Rockville, MD: American Speech-Language-Hearing Association (special tutorial document).

Ferraro, J. (2004). Electrocochleography. In: Kent, R. (Ed.) *The MIT Encyclopedia of Communication Disorders*. Philadelphia: The MIT Press, 461-467.

Ferraro, J. & Durrant J. Electrocochleography in the evaluation of patients with Meniere's Disease/Endolymphatic Hydrops. Invited manuscript, special edition of the Journal of the American Academy of Audiology (in press).

Ferraro, J. (2005). Electrocochleography: How I do it. In: Decker, N, and Ackley, S. (Eds). *An Essential Guide to Clinical Audiology*. Oxford Press (in press).

### Presentations:

Ferraro, J., "Current Research in Pediatric Physiologic Assessment. Special Seminar 2002 Annual Convention of the ASHA, Atlanta, GA, November 2002.

Ferraro, J., "Electrocochleography: Technical Aspects and Case Studies," Guest Speaker, Third Biennial Balance Center Symposium, Barrow Neurological Institute, Phoenix, AZ, January 2002.

Ferraro, J., "Update on Auditory Evoked Potentials," Guest Speaker, 2002 Convention of the Illinois Speech-Language-Hearing Assn., Arlington Heights, IL, February 2002.

Ferraro, J., "Clinical Applications of Early, Middle and Late Auditory Evoked Potentials," Guest Speaker, Annual Convention of the Hawaiian Speech-Language-Hearing Assn., Honolulu, HI, April 2002.

Ferraro, J., “Workshop for Chairs: New and Used,” Invited Speaker, Annual Convention of the CAPCSD, Palm Spring, CA, April 2002.

Ferraro, J., “Electrocochleography: Update on Technique and Applications,” Invited Speaker, Annual Convention of the Kansas Speech-Language-Hearing Assn., Overland Park, KS, October 2002.

Ferraro, J., “An Improved Electrophysiological Approach to Hearing Assessment and Infants,” Invited Speaker, KUMC Chapter of Sigma Xi, January 2003.

Ferraro, J., “Update on Clinical Applications of ABR & ECochG in Newborn Hearing Assessment, And Current State of Education in Audiology,” Guest Speaker, Annual Convention of the Virginia State Speech-Language-Hearing Association, Richmond, VA, March 2003.

Ferraro, J., “Improved Method of Hearing Assessment in Infants,” Invited Speaker, Annual Convention of the Kansas Speech-Language-Hearing Assn., Wichita, KS, October 2003.

Ferraro, J., “The future of Audiology,” Guest Speaker, Special Session of National Student Speech-Language-Hearing Association, ASHA Convention, November 2003.

Ferraro, J., ABR and CM Recorded from the Ear Canal in Newborns. Paper presented at the 2004 International Conference on Newborn Hearing Screening: Diagnosis and Intervention, Cernobbio, Italy, May, 2004.

Ferraro J., and Gaddam, A. Ear Canal Recordings of ABR and CM in Newborns. Technical paper presented at the 2004 Annual Convention of the ASHA, Philadelphia, PA, November 2004

Ferraro, J., “Electrocochleography: Theories, Techniques and Clinical Applications,” Invited Presenter. Audiology On-Line Seminar Series, September, 2004.

Ferraro, J., “An Improved Method for the Electrophysiological Assessment of Hearing Function in Newborns,” Guest Speaker, Children’s Mercy Hospital Research Seminar, Kansas City, MO, December, 2004.

Grant Activity:

Improved Method of Auditory Assessment in Infants  
September 2001 – July 2004 (PI)  
Hall Foundation of Kansas City, \$60,000 (Funded)

An Improved Method for the Electrophysiological Assessment of Hearing Function in Newborns and Young Children  
August, 2004 –August, 2005 (PI)  
Deafness Research Foundation, \$20,000

## Marc Fey, Ph.D., Professor

### Publications:

McCauley, R. J. & Fey, M.E. (Eds.) (in press). *Treatment of Language Disorders in Children*. Baltimore: Brookes Publishing.

Swanson, L. A., Fey, M. E., Mills, C. E., & Hood, L. S. (in press). Use of story retelling and story generation to facilitate the syntactic and narrative skills of children with specific language impairment. *American Journal of Speech-Language Pathology*.

Warren, S. F., Bredin-Oja, S. L., Fairchild, M., Finestack, L. H., Fey, M. E., & Brady, N. (In press). Prelinguistic communication intervention. In R. J. McCauley and M. E. Fey (Eds.) *Treatment of Language Disorders in Children*. Baltimore: Brookes Publishing.

Fey, M.E. (2004). Preschool language intervention. In R. Kent (Ed.), *The MIT Encyclopedia of Communication Disorders* (pp. 378-381). Cambridge, USA: The MIT Press.

Fey, M. E., Catts, H. W., Proctor-Williams, K., Tomblin, J. B. & Zhang, X. (2004). Oral and Written Story Composition Skills of Children with Language Impairment: A Longitudinal Investigation. *Journal of Speech-Language-Hearing Research*, 47, 1301-1318.

Justice, L.M., & Fey, M.E. (21 September 2004). Evidence-based practice in schools: integrating craft and theory with science and data. *The ASHA Leader*, 4-5, 30-32.

Warren, S.F., Brady, N.C., & Fey, M.E. (2004). Communication and language: Research design and measurement issues. In E. Emerson, C. Hatton, T. Thompson, & T. Parmenter (Eds.), *The international handbook of applied research in intellectual disabilities*, 385-405. West Sussex, England: John Wiley & Sons.

Brackenbury, T., & Fey, M.E. (2003). Children's fast mapping of manner-of-motion verbs. *Journal of Speech-Language-Hearing Research*, 46, 313-327.

Catts, H., Hogan, T., & Fey, M.E. (2003). Sub-grouping poor readers on the basis of individual differences in reading-related abilities. *Journal of Learning Disabilities*.

Fey, M. E., Long, S. H., & Finestack, L. H. (2003). Ten principles of grammatical intervention for children with specific language impairments. *American Journal of Speech-Language Pathology*, 12, 3-15.

Fey, M.E. (2003). Theory and practice: A response to Thomson. *Advances in Speech-Language Pathology*, 5, 61-63.

Catts, H.W., Fey, M.E., Zhang, X., & Tomblin, J. B. (2002). A longitudinal investigation of reading outcomes in children with language impairments. *Journal of Speech-Language-Hearing Research*, 45, 1142-1157.

Eadie, P.A., Fey, M.E., Douglas, J.M., Parsons, C.L. (2002). Profiles of Grammatical Morphology and Sentence Imitation in Children with Specific Language Impairment and Down Syndrome. *Journal of Speech- Language-Hearing-Research*, 45, 720-732.

Fey, M.E., and Loeb, D.F. (2002). An evaluation of the facilitative effects of inverted yes-no questions on the acquisition of auxiliary verbs. *Journal of Speech-Language-Hearing Research, 45*, 160-174.

Presentations:

Fey, M. E. "Ten principles of grammatical intervention for children with specific language impairments: An evidence-based look." March 2005.

Fey, M. E., "Evidence based practice: Intervention issues," University of Washington, 24-25 June 2004.

Fey, M. E., Warren, S. F., Brady, N., Finestack, L., Bredin-Oja, S., Fairchild, M., & Sokol, S. B., "Effects of parent responsivity education /prelinguistic milieu teaching on young children with Down Syndrome," Symposium on Research in Child Language Disorders, Madison, WI, 4 June 2004.

Fey, M. E., "EBP in child language intervention: some background and some food for thought," National Working Group on Evidence-Based Practice in Child Language Disorders, Austin, TX, 20 May 2004.

Fey, M. E., "Evidence-based practice in child language disorders: The state of the art," 2004 California Speech-Language-Hearing Association Annual Convention, Long Beach, 6 March 2004.

Fey, M. E., "Preparing preschoolers with language disorders for school," 2004 California Speech-Language-Hearing Association Annual Convention, Long Beach, 6 March 2004.

Walker, D., Goldstein, H., & Fey, M. E., "Distilling effective strategies for promoting communication of infants and toddlers in homes, centers and across routines," Conference on Research Innovations in Early Intervention. San Diego, 28 February 2004.

Fey, M. E., "A procedure for assessing school-age children's oral and written narrative composition abilities," University of Western Carolina, 21 March 2003.

Fey, M. E., "Intervention before language: a case for prelinguistic milieu teaching," University of Alberta, Edmonton, 26 June 2003.

Gillam, R., & Fey, M. E., "Measuring language development and language disorders: Documenting treatment outcomes," Symposium on Research in Child Language Disorders, Madison, Wisconsin, June 2003.

Fey, M. E., & Justice, L., "Evidence-based practice in the schools," American Speech-Language-Hearing Association Convention, Chicago, November 2003.

Swanson, L. A., Fey, M. E., Mills, C. E., & Hood, L. S., "Use of a narrative-based language intervention with children with SLI," Poster presented at the American Speech-Language-Hearing Association Convention, Chicago, IL, November 2003.

Bredin-Oja, S., Fey, M. E., & Loeb, D. F., "Patterns of subject omission in children with specific language impairment and typical language development," Poster presented at the Symposium for Research on Child Language Disorders, Madison, WI, 21 July 2002.

Fey, M. E., "Intervention research in child language disorders: some problems and solutions," Annual NSSLHA Summer Conference on Communicative Disorders, Tuscaloosa, AL, 27 July 2002.

Fey, M. E., "Intervention research in child language disorders: some problems and solutions," 32<sup>nd</sup> Annual Mid-South Conference on Communicative Disorders Memphis, TN, 1 March 2002.

#### Grant Activity:

Is prelinguistic communication intervention necessary?

2000-2004, Warren, S. H., & Fey, M. E. (Co-PI)

Office of Special Education Programs: United States Department of Education

#### **Susan Jackson, Ph.D., Associate Professor**

#### Publications

Jackson, S.T. (2002). Challenging communication behaviors in dementia. Geriatric Education Center Module at [www2.kumc.edu/coa](http://www2.kumc.edu/coa).

Jackson, S.T. (2002). Speech. In David J. Ekerdt, Robert A. Applebaum, Karen C. Holden, Stephen G. Post, Kenneth Rockwood, Richard Schulz, Richard L. Sprott, and Peter Uhlenberg (Eds.). Encyclopedia of Aging. New York: Macmillan Reference USA.

Kemper, S., McDowd, J., Pohl, P., Herman, R., & Jackson, S.T. (in press). Revealing language deficits following stroke: The cost of doing two things at once. Aging, Neuropsychology, and Cognition.

#### Presentations:

Jackson, S. T., "Differences Between the Second and Third Editions of the BDAE," Speech-language pathologists at Health Mid West. Kansas City, MO, September 2002.

Jackson, S. T., "Telehealth: What's Going on in the Field of Speech-Language Pathology," Annual Meeting of the Kansas Speech-Language-Hearing Association, Overland Park, KS, October 2002.

Huggins, A.E., & Jackson, S.T., "Acceptability of Picture Books for Persons with Dementia," Poster presented at the annual meeting of the American Speech-Language-Hearing Association, Atlanta, GA, November 2002.

Agee, L.A., & Jackson, S.T., "Enhancing Conversation in Dementia: Memory Booklets and Language Facilitation Techniques," Poster presented at the annual Kansas City Life Sciences Research Day, Kansas City, MO, March 2003.

Jackson, S.T., "Facilitating Communication in Dementia: Tips From the Field of Speech-Language Pathology," Central Plains Geriatric Education Center Symposium, Topeka, KS, April 2003.

Jackson, S.T., "Hearing in older adults," Hiawatha Area Agency on Aging, Hiawatha, KS, September 2003.

DeLong, R.A., & Jackson, S.T., "The effect of picture books on conversation in dementia," Poster presentation at the annual meeting of the Kansas Speech-Language-Hearing Association, Wichita, KS, October 2003.

DeLong, R.A., & Jackson, S.T., "The effect of picture books on conversation in dementia," Poster presentation at the annual meeting of the American Speech-Language-Hearing Association, Chicago, IL, November 2003.

Jackson, S. T., "Communication tips and strategies for older clients with sensory or communication impairments," Central Plains Geriatric Education Center Spring ITV series, Kansas City, KS, May 2004.

Jaroch, N., & Jackson, S. T., "Effects of a live animal on communication in dementia," Poster presentation at the annual meeting of the American Speech-Language-Hearing Association, Philadelphia, November 2004.

Biggs, L., Haring, K., Jackson, S.T., & Neher, M., "Getting the facts: Feeding tubes and ALS," Poster presentation at the annual meeting of the American Speech-Language-Hearing Association, Philadelphia, November 2004.

Grant Activity:

Quentin N. Burdick Program for Rural Interdisciplinary Training grant  
3 years (Training Faculty)

Department of Health and Human Services, Bureau of Health Professions, Total costs: \$931, 413

The Kansas Geriatric Education Center  
5 years (Contributing Faculty)

Department of Health and Human Services, Bureau of Health Professions, Total costs: \$1,961,268

**Sandra Keener, M.A., Clinical Instructor**

Publication:

Keener, Sandy. (2003). Diagnostic Testing for Hearing Loss in Infants and Young Children. Mental Retardation and Developmental Disabilities Research Reviews, Volume 9, Number 4, 2003, Wiley-Liss, Inc.

Presentations:

Ator, Gregory, Keener, Sandy, & Nunnelee, Amy, "Clinical Grand Rounds, Cochlear Implantation," Children's Mercy Hospital, Kansas City, MO, 16 January 2003.

Keener, Sandy, Health Fair. Indian Woods Middle School, Overland Park, KS, 13 March 2003.

Keener, Sandy. Cochlear Implant Inservice. JFK Elementary School, Kansas City Kansas Public Schools, 26 March 2003.

Nicholson, N., O'Brien, D. & Keener, S., "High Technology Hearing Aid Outcomes for Infants and Toddlers," poster session, American Academy of Audiology Convention, 5 April 2003.

Keener, Sandy. Cochlear Implant Inservice. St. Benedict's Preschool for Children with Special Needs, Kansas City, KS, 12 September 2003.

Ator, Gregory; Keener, S. & Nunnelee, Amy, "Current Issues in Cochlear Implantation," Lansing Special Education Cooperative, 26 September 2003.

Keener, Sandy. Cochlear Implant Inservice. Spring Hill Elementary School, Spring Hill, KS, 22 October 2003.

### **Jeff Searl, Ph.D., Associate Professor**

#### Publications:

Searl, J. & Evitts, P.E. (2004). Velopharyngeal aerodynamics of /m/ and /p/ in tracheoesophageal speech. *Journal of Voice*, 18(4): 557-66.

Searl, J. & Ousley, T. (2004). Phonation offset in tracheoesophageal speech. *Journal of Communication Disorders*, 37 (4), 371-387.

Searl, J. (2003). Comparison of transducers and intra-oral placement options for measuring lingua-palatal contact pressure during speech. *Journal of Speech, Language, and Hearing Research*, 46, 1444-1456.

Searl, J. & Gabel, R. (2003). Speech-language pathologists attitudes towards aging and the elderly. *Contemporary Issues in Communication Science and Disorders*, 30, 146-154.

Gabel, R., Searl, J. & Fulks, S. (2003). Communication disorders students' attitudes toward aging and the elderly. *Contemporary Issues in Communication Science and Disorders*, 30, 32-38.

Searl, J. & Carpenter, M.A. (2002). Acoustic cues to the voicing feature in tracheoesophageal speech. *Journal of Speech, Language, and Hearing Research*, 45(2), 268-294.

Searl, J. (2002). Magnitude and variability of oral pressure in tracheoesophageal speech. *Folia Phoniatrica et Logopaedica*, 54, 312-328.

Searl, J. & Gabel, R (2002). Speech disfluency in centenarians. *Journal of Communication Disorders*, 35(5), 383-392.

Searl, J. & Small, L. (2002). Gender and masculinity-femininity ratings of tracheoesophageal speech. *Journal of Communication Disorders*, 35(5), 407-420.

Presentations:

Searl, J. & Evitts, P., "Linguopalatal contact pressure during normal speech Production," American Speech-Language-Hearing Association Annual Convention, Philadelphia, 18-20 November 2004.

Neary, M. & Searl, J., "Articulatory contact pressures during speech relative to maximum nonspeech pressure," American Speech-Language-Hearing Association Annual Convention, Philadelphia, 18-20 November 2004.

Evitts, P. & Searl, J., "Reaction times of normal listeners to alaryngeal Speech," American Speech-Language-Hearing Association Annual Convention, Philadelphia, 18-20 November 2004.

Searl, J., "Basic facts about alaryngeal voice and speech," International Association of Laryngectomees Voice Institute, Anaheim, CA, 6-10 July 2004.

Kelly, D. & Searl, J., "Anatomical considerations for speech following Laryngectomy," International Association of Laryngectomees Voice Institute, Anaheim, CA, 6-10 July 2004.

Searl, J. & Evitts, P., "Acoustic evidence of speaker adaptation to a thin palatal appliance," American Speech-Language-Hearing Association Annual Convention, Chicago, IL, 13-15 November 2003.

Searl, J., Gabel, R., & Rider, K., "Speech-language pathologists' attitudes towards aging and the elderly," American Speech-Language-Hearing Association Annual Convention, Chicago, IL, 13-15 November 2003.

Shaffer, E. & Searl, J., "Listener perceptions of alaryngeal speaker age," American Speech-Language-Hearing Association Annual Convention, Chicago, IL, 13-15 November 2003.

Evitts, P., Gabel, R., & Searl, J., "Psychosocial analysis of listeners' perceptions of alaryngeal speech," American Speech-Language-Hearing Association Annual Convention, Chicago, IL, 13-15 November 2003.

MacDonald, A., Gabel, R., Searl, J., & Colcord, R., "School speech-language pathologists' experiences with stuttering," American Speech-Language-Hearing Association Annual Convention, Chicago, IL, 13-15 November 2003.

Kelly, D. & Searl, J., "Anatomical changes after laryngectomy and implications for speech and other ADLs," International Association of Laryngectomees Voice Institute, Atlanta, GA, 24-29 June 2003.

Searl, J., "Research in laryngectomy speech," International Association of Laryngectomees Voice Institute, Atlanta, GA, 24-29 June 2003.

Small, L. & Searl, J., "Fluent Vowel Production in TE Speakers," Ohio Speech-Language-Hearing Association State Convention, Columbus, OH, March 2003.

Evitts, P., Searl, J., & Goberman, A., "Longterm average spectral analysis of alaryngeal speech," The Voice Foundation Annual Convention, Philadelphia, February 2003.

Searl, J., "Lip Contact Pressure and Oral Air Pressure in Tracheoesophageal Speech," American Speech-Language-Hearing Association Annual Convention, Atlanta, GA, 21-24 November 2002.

Searl, J., Gabel, R., & Fulks, S., "Speech Disfluency in Centenarians," American Speech-Language-Hearing Association Annual Convention, Atlanta, GA, Nov. 21-24(2002).

Evitts, P. & Searl, J. "Nasal Airflow During Oral Consonants Produced by Normal Speakers," American Speech-Language-Hearing Association Annual Convention, Atlanta, GA, 21-24 November 2002.

Small, L. & Searl, J., "Vowel Formants of TE Speakers in Connected Speech," American Speech-Language-Hearing Association Annual Convention, Atlanta, GA, 21-24 November 2002.

Gabel, R., Searl, J., & Fulks, S., "Communication Disorder Students' Attitudes Toward Aging," American Speech-Language-Hearing Association Annual Convention, Atlanta, GA, 21-24 November 2002.

Searl, J., "Lip contact pressure, oral air pressure, and sound pressure level in tracheoesophageal speech," International Association of Laryngectomees Voice Institute, Vancouver, B.C., 14-20 July 14-20, 2002.

Searl, J. & Small, L. (2002). Acoustic Measures of Tracheoesophageal Speech: Male vs. Female. Ohio Speech-Language-Hearing Association Annual Convention, Dayton, OH, March 14-15, 2002.

Grant Activity:

Linguopalatal contact pressures during speech.

May, 2001 – July, 2004 (PI)

National Institute of Deafness and Other Communicative Disorders, National Institutes of Health, \$202,000 (Direct +Indirect)

Quality of life of individuals with chronic speech disorders: Pilot data collection

January – December 2004 (Co-PI)

Center for Family Studies and Demography, Bowling Green State University, \$5,500

**Judith Widen, Ph.D., Associate Professor**

Publications:

Widen, J.E. & O'Grady, G.M. (2002). Using visual reinforcement audiometry in the assessment of hearing in infants. *Hearing Journal*, 55 (11): 28-36. (invited).

Widen, J.E., Bull, R.W. & Folsom, R.C. (2003). Newborn Hearing Screening: What it means for providers of early intervention services. *Infants and Young Children, 16*(3), 249-257.

Miller-Hansen, D.R., Nelson, P.B., Widen, J.E. & Simon, S.D. (2003). Evaluating the benefit of speech recoding hearing aids in children. *American Journal of Audiology, 12*, 106-113.

Widen, J.E. & Keener, S.K. (2003). Diagnostic Testing for Hearing Loss in Infants and Young Children. *Mental Retardation and Developmental Disabilities Research Reviews, 9*, 220-224.

Gajewski, B.J., Nicholson, N. and Widen, J.E. (2004), "Predicting Hearing Threshold in Non-Responsive Subjects Using a Log-Normal Bayesian Linear Model in the Presence of Left Censored Covariates," To Appear 2004 Proceedings of the American Statistical Association, Statistics in Epidemiology Section [CD-ROM], Alexandria, VA: American Statistical Association.

Widen, J.E. & O'Grady G.M. (2002). Evoked otoacoustic emissions in the evaluation of children. In Robinette MS and Glatke TJ (Eds). *Otoacoustic Emissions: Clinical Applications* (2<sup>nd</sup> ed), 375-415. New York: Thieme Medical Publishers Inc.

Gorga, M.P., Neely, S.T., & Widen, J.E. (2003). Otoacoustic emissions in children. In R.D. Kent (Ed.), *The MIT Encyclopedia of Communication Disorders*, 515-517. Cambridge, MA: MIT Press.

#### Presentations:

Miller-Hansen, D., Nelson, P.B. & Widen, J.E. Poster presentation at International Hearing Aid Research Conference, Lake Tahoe, CA., August 2002.

Johnson J.L., White, K.R., Weirather, Y., Widen, J.E., Holstrum, J., Gravel, J., James-Trychel, M., Kennalley, T., Maxon, A.B., Spivak, L., Sullivan-Mahoney, M., Vohr, B., Culpepper, B., "Efficacy of OAE/ABR Protocol in Identifying Hearing Loss," 130th Annual Meeting of the American Public Health Association, Philadelphia, November 2002.

Johnson, J.L., White, K.R., Widen, J.E., Gravel, J.S., Spivak, L., "Efficacy of OAE/ABR Protocol in Identifying Hearing Loss," American Speech Language Hearing Association Convention, Chicago, IL, November 2003.

O'Brien, D.M., Nicholson, N.C., Widen, J.E. "Measuring Benchmarks and Quality Indicators for Early Intervention: A Pilot Study," 3rd Annual Hearing Detection and Intervention Conference, Washington, D.C., February 2004.

Nicholson, N., Widen, J.E., Gajewski, B.J., "Improvement of TEOAE Performance," Research podium presentation, American Academy of Audiology Convention, Salt Lake City, UT, April 2004.

Nicholson, N., Widen, J.E., Gajewski, B.J., "Templates for Diagnostic Interpretation of TEOAEs," Poster presentation, American Academy of Audiology Convention, Salt Lake City, UT, April 2004.

Johnson, J.L., White, K.R., Widen, J.E., et al. "Efficacy of OAE/ABR Protocol in Identifying Hearing Loss in Newborns," International Conference on Newborn Hearing Screening, Diagnosis and Intervention, Como, Italy, May 2004.

Widen, J., "Behavioral Assessment of Infants and toddlers," 5<sup>th</sup> Annual Pediatric Workshop: A Holistic Approach to Audiologic Assessment & Management of 0-3 year olds," Tuscon, AZ, February 2002.

Widen, J., "Advanced Behavioral Audiometry for Infants and Children," Workshop at Children's Hospital and Regional Medical Center, Seattle, WA, September 2002.

Widen, J., "Pediatric Behavioral Assessment," 13th Annual Audiology Videoconference. Mayo Clinic, Rochester, MN, November 2002.

Widen, J., "Visual Reinforcement Audiometry: Developing a VRA Protocol," Infant Hearing Program, Ontario Ministry of Health. Toronto, ON, March 2003.

Widen, J., "Pediatric Behavioral Assessment: Things We Should Have Learned in School Had We Been Paying Attention," Kansas Speech Language Hearing Association Convention, Wichita, KS, October 2003.

Grant Activity:

Efficacy of OAE/ABR in Identifying Hearing Loss  
10/1/00 – 12/30/03 (Consultant, Diagnostic Evaluation Coordinator)  
Association for Teachers of Preventive Medicine, Centers for Disease Control

A Comparison of Language Intervention Programs  
9/1/01 – 8/31/05 (Psychoacoustician)  
National Institute of Deafness and other Communication Disorders

**DEPARTMENT OF OCCUPATIONAL THERAPY EDUCATION**  
3033 Robinson Building  
588-7195

**Becky Bothwell, OTR**

Publications:

Bothwell, R. (*in press*) Working with elders who have vision impairments. In H. Lohman, R. L. Padilla, & S. Byers-Connon (Eds.) *Occupational Therapy with Elders: Strategies for the COTA*, 2<sup>nd</sup> Edition, St. Louis: Mosby.

Presentations:

Bothwell, Becky, "Applying an evidence based intervention to clinical practice: Issues related to fidelity," American Occupational Therapy Association Annual Conference; Washington, D.C., June 2003.

Bothwell, Becky, "Visual Deficits: What Every OT Should Know," co-presenter with Mary Pat Gilbert at the Annual Jubilee Conference, 20 September 2003.

Grant Activity:

Dynamic Assessment of Cognition in Schizophrenia  
September 2003-August 2005 (Project Manager and administrator of cognitive measures)  
NIMH

Matching Learning Potential and Rehab Approach  
September 2003-August 2005 (Project manager)  
NARSAD

**Tana Brown, Ph.D., OTR, FAOTA, Associate Professor**

Publications:

Hamera, E., Brown, C. & Rempfer, M., and Davis, N.C. (2002). Test of grocery shopping skills: Discrimination of people with and without mental illness. *Psychiatric Rehabilitation Skills*, 6, 296-311.

Brown, C. E. (2003). Interventions for people with serious mental illness. In Willard & Spackman's *Occupational Therapy* 10<sup>th</sup> Edition (E. Crepeau, E. S. Cohn, & B.A. Schell, Eds). Lippincott, Williams & Wilkins: Philadelphia.

Dunn, W., Youngstrom, M.J. Brown, C. E. (2003). Ecology of Human Performance. In Willard & Spackman's *Occupational Therapy* 10<sup>th</sup> Edition (E. Crepeau, E. S. Cohn, & B.A. Schell, Eds). Lippincott, Williams & Wilkins: Philadelphia.

Rempfer, M.V., Hamera, E.K., Brown, C.E., & Cromwell, R.L. (2003). The relations between cognition and the independent living skill of shopping in people with schizophrenia. *Psychiatry Research*, 117, 103-112.

Brown, C.E. (Ed.) (2003). Recovery and wellness: Models of hope and empowerment for people with mental illness. Haworth Press: Binghamton, NY.

Dunn, W., Youngstrom, M.J., & Brown, C. (2003). Ecological model of occupation. In *Current perspective in human occupation: Participation in Life* (P. Kramer, J. Hinojosa, C. Royeen (Eds.)). Lippincott, Williams & Wilkins, Philadelphia. 222-263.

Pohl, P.S., Dunn, W. & Brown, C. (2003). The role of sensory processing in the everyday lives of older adults. OTJR: Occupation, Participation and Health. 99-106.

Rempfer, M., Hildenbrand, W., Parker, K. & Brown, C. (2003). An interdisciplinary approach to environmental intervention: Ecology of human performance. In L. Letts, P. Rigby, D. Stewart (Eds.) Using environments to enable occupational performance. 119-136. Thorofare, NJ: Slack, Inc.

Youngstrom, M.J. & Brown, C. (2004). Categories and principles of intervention. In Occupational Therapy: Enabling Function and Well-Being (3<sup>rd</sup> Ed) (C. Christiansen & C. Baum (Eds.)) Slack Inc: Thorofare, NJ.

#### Presentations:

Brown, C. & Bothwell, B., "Applying an evidence based intervention to clinical practice: Issues related to fidelity," American Occupational Therapy Association Annual Conference; Washington, D.C., June 2003.

Brown, C., "Incorporating recovery principles in skills training research," International Association of Psychosocial Rehabilitation Annual Conference, Atlanta, GA, May 2003.

Rempfer, M., Hamera, E.K., Brown, C.E. & Bothwell, B., "Relation of cognition and schizophrenia diagnosis in predicting shopping experience," International Congress on Schizophrenia Research Biennial Conference, Colorado Spring, CO, April 2003.

Brown, C., Rempfer, M., & Hamera, E., "Measuring generalization in Independent Living Skills Training," Institute on Psychiatric Services, Chicago, IL, 2002.

Rempfer, M., Brown, C., Hamera, E. & Cromwell, R., "Learning potential and the Wisconsin Card Sorting Test: An analysis of subgroup differences in cognition and daily function," Society for Research in Psychopathology.

Brown, C., "Using the Adult Sensory Profile for intervention planning," American Occupational Therapy Association Annual Conference, May 2004.

Brown, C., "Enabling occupational performance and participation: Education and implementation (with 17 other authors of Christiansen & Baum textbook), American Occupational Therapy Association Annual Conference Institute, May 2004.

Brown, C., "Life after the dissertation: Developing a program of research," American Occupational Therapy Association Annual Conference, Doctoral Network Reception, May 2004.

Brown, C., "How to conduct research in the workplace while maintaining productivity. Chesapeake Bay Fieldwork Council, April 2004.

Brown, C., "How should we measure community functioning?" Winter Workshop on Schizophrenia, Biennial Conference, February 2004.

Brown, C., Van Sciver, A., Goetz, J., Sullivan, D. & Hamera, A. "A psychiatric rehabilitation approach to weight loss". Association for the Advancement of Behavior Therapy Annual conference, November 2004.

Grant Activity:

Independent living for people with psychiatric disabilities: Using contextual cues to remove environmental barriers

(2000 – 2004) (PI)

National Institute of Disability Research and Rehabilitation, \$433,543

Partnerships in health promotion

Dates (2002 – 2005) (Project Director)

Health Resources and Services Administration, \$363,548

Dynamic assessment of cognition in schizophrenia

Dates (2003-2005) (Principal Investigator)

National Institute of Mental Health, \$147,000

Matching learning potential and rehabilitation approach for people with schizophrenia National Association for Research in Schizophrenia and Depression

2003-2005

\$100,000

Preventing obesity in people with schizophrenia

2003-2004 (PI)

University of Kansas Research Institute's Clinical Pilot Grant, \$25,000

**Jessica Saiter Clark, OTR**

Publication:

Dunn, W., Saiter, J., & Rinner, L (2002). Asperger's syndrome and sensory processing: A conceptual model for intervention. Focus on Autism and Other Developmental Disabilities.

Presentations:

Saiter, J., "Evaluating the Fieldwork Process: Becoming a Fieldwork Educator," February 2003 for fieldwork educators.

Saiter, J., "How Do Sensory Processing Patterns Support You and Your Child's Daily Life?" Annual Conference Kansas Division of Early Childhood, March 2003.

Saiter, J., “An Introduction to Understanding the OT and OTA Fieldwork Performance Evaluations (FWPEs),” Heartland Occupational Therapy Fieldwork Alliance spring meeting, April 2003.

Saiter, J., “Sensory Processing Across the Life Span,” Life Sciences Research Day of University of Missouri – Kansas City Poster presentation, March 2003.

Saiter, J., “An Introduction to Understanding the OT and OTA Fieldwork Performance Evaluations (FWPEs),” Heartland Occupational Therapy Fieldwork Alliance Fall Meeting, 2003.

Saiter, J., “Young Children with Mental Health Concerns: Insight from Sensory Processing for Daily Life,” Early Years Conference, 2003.

Saiter, J., “Evaluating the Fieldwork Student and Experience; Your Role as Fieldwork Educators,” Becoming a Fieldwork Educator, to Fieldwork Educators, 2004.

Saiter, J., “Sensory Processing in Daily Life,” Together We Can Learn Conference, 2004.

Saiter, J., “Serving Students: Assessing Sensory Processing and Designing Interventions,” Autism Interdisciplinary Team Training Training, 2004.

### **Cheryl Deterding, M.A., OTR, Assistant Professor**

#### Presentations:

Deterding, Cheryl, “Quality Indicators in Assistive Technology,” (co-presenter) Closing the Gap Annual Conference, Minneapolis, MN, October 2002

Deterding, Cheryl, “The Accessible Workstation,” July 30, Lawrence Workforce Center Staff and Partners, August 14, Manhattan Workforce Center Staff and Partners, August 14, Junction City Workforce Center Staff and Partners, August 28, Atchison Workforce Center Staff and Partners , September 3, Topeka Workforce Center Staff and Partners.

Deterding, Cheryl, “Components of an Accessible Workstation,” State Workforce Center Managers, One-Stop Operators, Agencies that serve job seekers with disabilities, May 25.

#### Grant Activity:

Ready and Able: Enhancing the Ability of the One-Stops to Serve Individual with Disabilities  
Department of Labor Grant

Ready and Able: Enhancing the Ability of the One-Stops to Serve Individuals with Disabilities  
.3 FTE on Department of Labor Grant

### **Winnie Dunn, Ph.D., OTR, FAOTA, Professor and Chair**

#### Publications:

Dunn, W. & Daniels, D. (2002). Initial Development of the Infant/Toddler Sensory Profile. *Journal of Early Intervention*, 25(1), 25—41.

Dunn, W., Saiter, J., & Rinner, L (2002). Asperger's syndrome and sensory processing: A conceptual model for intervention. *Focus on Autism and Other Developmental Disabilities*, 17(3); 172-185.

Dunn, W., Brown, C., & Youngstrom, M. (2003). Ecological Model of Occupation. in Kramer, P., Hinojosa, J, & Royeen, C. Current Perspectives in Human Occupation: participation in life. Lippincott, Williams & Wilkins; Philadelphia, PA, 222-263.

Myles, B.S. Hagiwara, T., Dunn, W., Rinner, L. , Reese, M., Huggins, A., Stansberry, S. (2004). Sensory Issues in Asperger syndrome and autism. *Education and Training in Developmental Disabilities*, December issue.

### Presentations:

Visiting Professor in Australia: University of Sydney  
Graduate course on interdisciplinary theory  
Graduate course on service provision issues  
4 continuing education courses on sensory processing

Dunn, W., "Sensory Processing for School Practice," Kansas City 2002.

Dunn, W., "Including a sensory processing approach in your practice," Pittsburgh Children's Hospital, 2003.

Dunn, W., "Best Practices in Infant / Toddler Services," Philadelphia, 2003.

Dunn, W., "Asperger Syndrome, Characteristics and Interventions," AOTA Institute, 2003.

Dunn, W. Moderator for group research presentation on sensory processing and participation, national AOTA conference, May 2003.

Dunn, W., "Update on Research in Sensory Processing," St. Louis, Missouri Occupational Therapy Association, October 2003.

Dunn, W., "Sensory Processing in School Based Practice," Idaho Occupational Therapy Association, October 2003.

Dunn, W., "Sensory Processing in Asperger Syndrome: Asperger Society of New England, November 2003.

Dunn, W., "School Based Practices with Sensory Processing," New Jersey, November 2003.

Dunn, W., "Research on Sensory Processing and Temperament," 25<sup>th</sup> anniversary of Sensory Integration conference, February 2004.

Dunn, W., "Sensory Processing and Autism Spectrum Disorder," Jacksonville Professional Education, March 2004.

Dunn, W., "Update on Sensory Processing research and application to practice," Oklahoma Professional Development systems, April 2004.

Dunn, W., "I have my scores, now what do I do?" Infant Toddler services of Philadelphia, May 2004.

Dunn, W., "Creating an Evidence Based Practice," Infant Toddler services of Philadelphia, May 2004.

Dunn, W., "A Model for understanding Sensory Processing and Designing Effective Interventions," TEACHH Conference, Chapel Hill, NC, May 2004.

Grant Activity:

Health Resources and Services Administration, Bureau of Health Professions (BHPr) Allied Health Projects Grant Program \$170,000 per year 3 years.

**Mary Pat Gilbert, M.S., O.T.R., Clinical Instructor**

Presentation:

Gilbert, Mary Pat, "Visual Deficits: What Every OT Should Know," Session of OT Department annual Jubilee, 20 September 2003.

**Katherine F. Grobe, Ph.D., Assistant Professor**

Publications:

Froehlich-Grobe, K., & White, G. W. (2004). Promoting physical activity among women with mobility impairments: A randomized controlled trial to assess a home and community-based intervention. *Archives of Physical Medicine and Rehabilitation*, 85, 640-648.

Froehlich-Grobe, K., & White, G.W. (2004). Promoting physical activity among women with mobility impairments: A randomized controlled trial to assess a home- and community-based intervention. *Archives of Physical Medicine and Rehabilitation*, 85, 640-648.

Presentations

Froehlich-Grobe, K., & Chaudhary, K., "Preventive health care services for minorities with disabilities," 9<sup>th</sup> Biennial Conference on Community Research and Action, Las Vegas, NM, June 2003.

Froehlich-Grobe, K., Figoni, S. F., Thompson, C., & White, G.W., "Exploring the health of women with mobility impairments," 24<sup>th</sup> Annual Conference of the Society of Behavioral Medicine, Salt Lake City, UT, March 2003.

Froehlich-Grobe, K., "Issues related to promoting health and physical activity among people with disabilities," Preventive Medicine Department at the University of Kansas Medical Center; Kansas City, KS, March 2003.

Froehlich-Grobe, K., "Promoting health among people with disabilities," Physical Therapy Education Department at the University of Kansas Medical Center, Kansas City, KS, February 2003.

Froehlich-Grobe, K & Chaudhary, K., "Exploring health care provider's attitudes and practices regarding people with disabilities from minority backgrounds," 9<sup>th</sup> Biennial Conference of the Society for Community Research and Action, Las Vegas, NM, June 2003.

Froehlich-Grobe, K., White, GW, & Roberts, J., "Comparison of regular and "enabled" versions of the SF36 for people with mobility impairments," 131<sup>st</sup> Annual Conference of the American Public Health Association, San Francisco, CA, November 2003.

Froehlich-Grobe, K. & McDowd, J., "Surfing the information superhighway for evidence," 3<sup>rd</sup> Annual Conference on Practice at the University of Kansas Medical Center, September 2003.

#### Grant Activity

Understanding health and wellness needs and investigating communication networks of people with disabilities from ethnic and racial minorities

2001-2005 (PI)

Subcontract from the Research and Training Center and the Schiefelbush Life Span Institute at the University of Kansas, National Institute of Disability and Rehabilitation Research, \$150,000

Health care status and utilization patterns of MediKan enrollees

August 2004-June 2005 (Co-I)

Kansas Department of Social and Rehabilitation Services, \$20,871

Developing an action plan to improve the quality and quantity of data about paralysis

October 2004-October 2005 (Co-I)

Christopher Reeve Paralysis Foundation, \$192,395

Development of a Disability-Related Stress Scale

2005-1006 (Co-PI)

University of Kansas Medical Center, \$34,967

#### **Wendy Hildenbrand, M.P.H., O.T.R./L., Clinical Instructor**

##### Publications:

Rempfer, M., Hildenbrand, W., Parker, K. & Brown, C. (2003). An interdisciplinary approach to environmental intervention: Ecology of human performance. In Letts, Rigby & Stewart (Ed.), *Using Environments to Enable Occupational Performance*. Thorofare, NJ: SLACK, Incorporated.

##### Presentations:

Hildenbrand, W., "Identifying Health-Related Characteristics in Shelter-Supported Homeless Women," 13 November 2002.

Hildenbrand, W., "Mental Health Practice and OTA Options," Guest lecturer at Penn Valley Community College, 6 November 2002.

Hildenbrand, W., "Psychosocial and Behavioral Disorders in Children," Guest lecturer at Rockhurst University, 14 October 2002.

Hildenbrand, W., "Identifying Health-Related Characteristics in Shelter-Supported Homeless Women Kansas," Public Health Conference, 25 September 2002.

Hildenbrand, W., "Psychosocial and Behavioral Disorders in Children," Guest lecturer to Occupation Therapy students at Rockhurst University, 3 November 2003; 18 October 2004.

Hildenbrand, W., Occupational Therapy Legislative Issues; Area Rehabilitation Management Group, 11 November 2003.

Hildenbrand, W., "Assembly at Work for You," AOTA Representative, Kansas Occupational Therapy Association; 6 March 2004.

Grant Activity:

Effects of Inclusive Class Membership on Peers Without Disabilities: Study 1: Analysis of Inclusive School Contexts and Practices  
Research Site Coordinator  
OERI grant/subcontract – (complete)

Effects of Inclusive Class Membership on Peers Without Disabilities: Learning Opportunities and Outcomes Studies.  
Continuing through 6/04 (Research Site Coordinator)  
OERI grant/subcontract

Effects of Inclusive Class Membership on Peers Without Disabilities: Learning Opportunities and Outcomes Studies  
(Research Site Coordinator)  
OERI grant/subcontract

Community Health Project  
Beginning 4/03 through 06/08 (Co-PI and Faculty Advisor)  
Grant housed in Department of Internal Medicine  
Kansas Health Foundation

**Deena Khosh, Ph.D., Research Assistant Professor**

Publications:

Khosh, D. Natural Approaches to Migraine Headache, *Townsend Letters*, August/Sept 2002.

Khosh, D. Natural Approaches to ADD/ADHD, *Townsend Letters*, January 2003.

Presentation:

Alternative Medicine. Class at KU; February 2003.

### Grant Activity:

Naturopathic Approaches to Diabetes in Native Approaches at Haskell Indian University  
2003-2004 (Co-I)  
Funding source-private

Antioxidant effects on Treatment of Ovarian Cancer  
2002 to current (Co-I)  
Cancer Research Treatment Foundation

Tact Trial – Trial to assess chelation therapy  
2003 to current (Co-I)  
NIH

Glutathione in Treatment of ALS  
2003-2004 (Co-I)  
Funding source-private

### **Joan McDowd, Ph.D., Associate Professor**

#### Publications:

McDowd, J., Filion, D., Pohl, P., Richards, L., & Stiers, W. (2003). Attentional abilities and functional outcome following stroke. *Journal of Gerontology: Psychological Sciences*, 38B: 45-53.

Kemper, S., McDowd, J., Pohl, P., Herman, R., & Jackson, S. (in press). Revealing language deficits following stroke: the cost of doing two things at once. *Aging, Neuropsychology, and Cognition*.

Liu, C., McDowd, J., & Lin, K. (2004). Visuospatial inattention and daily life performance in people with Alzheimer's Disease. *American Journal of Occupational Therapy*, 58, 202-210.

#### Presentations:

Richards, L., McDowd, J., Petera, S., & Duncan, P., "Performance on neuropsychological assessments of frontal lobe cognitive processes in individuals with stroke," Poster presented at the annual meeting of Claude D. Pepper Centers of Independence of Older Americans, Galveston, TX, February 2003.

Wells, V., Becker, A., Filion, D., & McDowd, J., "Hold that cliché! Assessing restraint in inhibitory function," Poster presented at the biannual Cognitive Aging Conference. Atlanta, GA, April 2003.

Regan, G.R., Filion, D.L., Lee, R.E., & McDowd, J.M., "Functional fitness and lifelong activity as predictors of health in older adults," Poster presented at the annual Measurement and Evaluation Symposium: Measurement Issues and Challenges in Aging Research, Urbana-Champaign, IL, October 2003.

Kemper, S., McDowd, J.M., & Metcalf, K., "Eye fixations of young and older adults while reading with distraction," Poster presented at the biannual Cognitive Aging Conference, Atlanta, GA, April 2004.

Hoffman, L., Atchley, P., McDowd, J.M., & Dubinsky, R., "Attentional orienting deficits as a predictor of driving impairment in older adults," Poster presentation at the 2004 Cognitive Aging Conference, Atlanta, GA, April 2004.

Kemper, S., McDowd, J.M., & Metcalf, K., "Aging and distractibility during reading," Poster presented at the International Congress of Psychology, Beijing, China. August 2004.

Grant Activity:

Tracking older adults' eye movements during reading  
10/02 – 9/06 (Co-I)  
NIH/National Institute on Aging

**Ellen Mellard, M.S., O.T.R., Clinical Instructor**

Presentations:

Mellard, Ellen, "Sensory Processing," Kansas Division of Early Childhood in Wichita, KS in March.

Mellard, Ellen, Provided a case study presentation via ITV (5 sites) for OT's and other team members in tiny-k programs across the state

Mellard, Ellen, Provided a one day workshop on teaming to early childhood team members from across the state as part of the KITS Summer Institute in Wichita, KS

Grant Activity:

Infant Toddler Technical Assistance Project  
July 1-June 30 2002 (Coordinated activities)  
Kansas Dept. of Health and Environment, \$56,000

Occupational Therapy Infant Toddler Technical Assistance Project  
(Project Coordinator)  
Kansas Department of Health and Environment, \$45,000

**Kathy Parker, M.S., O.T.R., Clinical Instructor**

Publications:

Rempfer, M., Hildenbrand, W., Parker, K., & Brown, C. (2003). An interdisciplinary approach to environmental intervention: Ecology of human performance. In L. Letts, P. Rigby, & D. Stewart (Eds), Using environment to enable occupational performance. Thorntown, NJ: Slack, Inc.

Presentations:

Parker, Kathy, "Accommodating Adults with Disabilities in Adult Education Programs," Adult Education Summer Institute, Manhattan, KS, 16 July 2002.

Parker, Kathy, "Presentation of "cost-effective advocacy methods and access to generic community services" National Advisory Board of the Research and Training Center on Full Participation in Independent Living, 26 October 2002.

Parker, Kathy. New fieldwork supervisors' workshop, Sponsored by HOTFA, 21 February 2003.

Parker, Kathy, "Universal Access: Making your workforce center accessible to all," Two sessions each: Overland Park Workforce Development Center, Dec. 2, 2002; Kansas City, Kansas Workforce Development Center, Dec. 6, 2002; Leavenworth Workforce Development Center, Dec. 12, 2002 and Pittsburg One Stop Center, March 27, 2003.

Parker, Kathy, "Training for "mystery customers" for KRS Grant. Various sessions Feb. through April, 2002. Kansas City, KS; Overland Park, KS; Leavenworth, KS at the offices of Coalition for Independence.

Parker, Kathy, "Accommodating Adults with Disabilities in Adult Education," State Adult Education Conference, 15 July 2003.

Occupational Therapy on the Transition Team, 7/24/03, new transition staff in Kansas.

### **Jeff Radel, Ph.D., Associate Professor**

#### Publications:

Humphrey, H.J., Radel, J, & Kemper, S. (in press). The Time Course of Metonymic Language ext Processing by Older and Younger Adults. Exp. Aging Research

Haas, S. M., Frei, M. G., Osario, I, Pasik-Duncan, B & Radel, J.D. (in press) EEG Ocular Artifact Removal Through ARMAX Model System Identification Using Extended Least Squares. Communication of Information and Systems.

Radel, J.D., Levant, B., McCarter, K. & Carlson, S. (2002) Effects of Developmental DHA Deficiency and Remediation upon Evoked Brain Activity at Maturity in Rats. Program No. 106.5 Abstracts Viewer/Itinerary Planner. Washington, D.C.: Society for Neuroscience, CD-ROM.

Levant, B., Radel, J.D., Grasing, K., Richards, T.L. & Carlson, S.E. (2002). Effects of Developmental DHA Deficiency and Remediation on Adult Behavior in Rats. Program No. 106.5, Abstracts Viewer/Itinerary Planner. Washington, D.C.: Society for Neuroscience. CD-ROM.

Radel, J.D., Levant, B., McCarter, K. & Carlson, S.E. (2003). Effects of Developmental DHA Deficiency and Remediation upon Evoked Brain Activity at Maturity in Rats. Kansas City Life Sciences Research Day program; pg 68.

Levant, B., Radel, J.D., Grasing, K, Richards, T.L., & Carlson, S.E. (2003). Effects of Developmental DHA Deficiency and Remediation on Adult Behavior in Rats. Kansas City Life Sciences Research Day program; pg. 62.

Haas, S.M., M.G. Frei, I. Osario, B. Pasik-Duncan and J. D. Radel (2003) EEG Ocular Artifact Removal Through ARMAX Model System Identification Using Extended Least Squares. *Communication of Information and Systems*, 3:19-40.

Carlson, S.E., JD Radel, B. Levant, K.N. Kannass and J. Colombo (2003) Maternal Long Chain Fatty Acid Metabolism and Nutrition: Influences on Pregnancy Outcome and Neonatal Development. Mother and Infant Conference: Perinatal Influences on Health (symposium), p. 25.

Humphrey, H., S. Kemper and J. Radel (2004) The Time Course of Metonymic Language Text Processing by Older and Younger Adults. *Exp. Aging Research*, 30:75-94.

Levant, B., J.D. Radel, S.E. Carlson. (2004) Decreased Brain Docosahexaenoic Acid During Development Alters Dopamine-related Behaviors in Adult Rats that are Differentially Affected by Dietary Remediation. *Behav. Brain Res.*, 152: 49-57.

Nunes, J.V., Kagan, D.V., Cregler, L.L., & Radel, J.D. (2004) Developing a Curriculum to Build Professionalism Skills while Integration Information Technology. *J. Assoc. Academic Minority Physicians*, 15:19.

Levant, B., Radel, J.D., & Carlson, S.E. (2004) Reduced Brain DHA Content after a Single Reproductive Cycle in Female Rats on a Diet Deficient in  $\alpha$ -Linolenic Acid. Program No.570.14. *2004 Abstracts Viewer/Itinerary Planner*. Washington, DC: Society for Neuroscience. CD-ROM.

Radel, J.D., Raghuvver, T., & Mahtosh, P. (2004). Oxygen-induced Vascular Pathology Influenced by Dietary n-3 Fatty Acids in Neonatal Rat Retina. Brain Uptake and Utilization of Fatty Acids, Lipids, and Lipoproteins: Applications to Neurological Disorders. *J. Mol. Neurosci.* (in press).

Miller, C.C., Levant, B., Radel, J.D., & Carlson, S.E. (2004). Decreased Brain DHA during Development alters Sucrose Drinking in Adult Male Rats. Brain Uptake and Utilization of Fatty Acids, Lipids, and Lipoproteins: Applications to Neurological Disorders. *J. Mol. Neurosci.* (in press).

Levant, B, Radel, J.D., & Carlson, S.E. (2004) Reduced Brain DHA Content after a Single Reproductive Cycle in Female Rats on a Diet Deficient in  $\alpha$ -Linolenic Acid. Brain Uptake and Utilization of Fatty Acids, Lipids, and Lipoproteins: Applications to Neurological Disorders. *J. Mol. Neurosci.* (in press).

#### Presentations:

Radel, Jeff, "Access for Fatty Acids during Early Development Influences Mature Brain Function," Graduate Neuroscience proseminar, KUMC/KU-Lawrence.

Radel, Jeff, "Food for Thought: Dietary Fatty Acid Intake During Development and Brain Activity at Maturity," Dept. Cognitive Psychology Proseminar, KU-Lawrence.

Radel, Jeff, "Dietary Access to Fatty Acids during Early Development Influences Mature Brain Function in Rats," Maternal and Infant LCPUFA Workshop, held in conjunction with the annual American Oil Chemist's Society meeting, 3-4 May 2003.

Radel, Jeff, "Effects of Developmental DHA Deficiency and Remediation upon Evoked Brain Activity at Maturity in Rats," Radel, J.D., B. Levant, K. McCarter and S.E. Carlson. Program

NO. 106.5 2002 Abstracts Viewer/Itinerary Planner. Washington, DC; Society for Neuroscience, 2002. CD-ROM.

Radel, Jeff, "Effects of Developmental DHA Deficiency and Remediation upon Evoked Brain Activity at Maturity in Rats," Radel, J.D., B. Levant, K. McCarter and S. E. Carlson. Kansas City Life Sciences Research Day Program, p.68., 2003.

Radel, Jeff, "Effects of Developmental DHA Deficiency and Remediation on Adult Behavior in Rats," Levant, B., J.D. Radel, K. Grasing, T. L. Richards, and S.E. Carlson. Kansas City Life Sciences Research Day program, p. 62, 2003.

Radel, Jeff, "Effect of Dietary alpha-Linolenic Acid deficiency during Development on Cortical Evoked Potentials in Mature Rats," KC Life Science Research Day poster presentation.

Radel, Jeff, "Neuroscience Principles and Neurorehabilitation," Continuing education workshops in Cincinnati, Cleveland, and Columbus, OH, Little Rock, AK, Minneapolis, MN, Omaha, NE, and Phoenix, AZ.

Radel, Jeff, "Making Effective Presentations in Scientific Settings," invited lecture delivered by interactive television to 75 medical students at the Sophie Davis Medical School, City University of New York.

Radel, Jeff, "Making Effective Presentations in Scientific Settings," invited lecture at the Stowers Institute.

Grant Activity:

Tracking Older Adult's Eye Movements while reading  
5 years (Co-I)  
National Institute Aging 10/02-09/06 (\$425,000)

Influence of Altered DHA Level on Mature Brain Function  
3/03 – 3/04 (PI)  
KUMC Research Institute. Lied Basic Science grant, \$35,000

Influence of Altered DHA Level on Mature Brain Function  
(PI)  
KUMC Research Institute, Lied Basic Science grant, \$35,000

Factors influencing severity of proliferative retinopathy in animal models  
(PI)  
Kansas Lion's Sight Research Foundation grant 04/04 – 03/05 (\$21,799)

**Melisa Rempfer, Ph.D., Assistant Professor**

Publications:

Hamera, E., Brown, C., Rempfer, M., & Davis, N.C. (in press) Test of Grocery Shopping Skills: Discrimination of People with and without Mental Illness. Psychiatric Rehabilitation Skills.

Rempfer, M. & Knott, J. (2001). Participatory Action Research: A model for establishing partnerships between mental health researchers and persons with psychiatric disabilities. *Occupational Therapy in Mental Health*, 17: 151-165.

Rempfer, M., Hildenbrand, W., Parker, K., & Brown, C. (2003). An interdisciplinary approach to environmental intervention: Ecology of human performance. In L. Letts, P. Rigby, & D. Stewart (Eds), Using environment to enable occupational performance. Thorofare, NJ: Slack, Inc.

Rempfer, M., Hamera, E., Brown, C., & Cromwell, R. (2003). The relations between cognition and the independent living skill of shopping in people with schizophrenia. *Psychiatry Research*, 117, 103-112.

Brown, C.E., Hamera, E., & Rempfer, M. (2004). How should we measure community functioning? *Schizophrenia Research*, 67(1), 225.

Rempfer, M., Hamera, E., Brown, C.E., & Bothwell, B. (2003). Relations of cognition and schizophrenia diagnosis in predicting shopping performance. *Schizophrenia Research*, 60(1 Suppl.), 180.

#### Presentations:

Rempfer, M., Brown, C., Hamera, E., "Learning potential and schizophrenia," Mt. Sinai Conference on Schizophrenia Research, Colorado Springs, CO, March 2003.

Rempfer, M., Hamera, E., Brown, C. & Bothwell B., "Relation of cognition and schizophrenia diagnosis in predicting shopping performance," International Congress on Schizophrenia Research, April 2003.

Rempfer, M., Brown, C., & Hamera, E., "Dynamic Assessment with the Wisconsin Card Sorting Test: Differences in community outcome," Association for the Advancement of Behavior Therapy, Reno, NV, November 2002.

Rempfer, M., Brown, C., Hamera, E. & Cromwell, R., "Learning potential and the Wisconsin Card Sorting Test: An Analysis of subgroup differences in cognition and daily functioning," Poster presented at the Society for Research in Psychopathology, San Francisco, CA, September 2002.

Rempfer, M., Brown, C., Hamera, E., "Community-based skills training for people with schizophrenia," Presenter and Co-chair of symposium on Evidence-Based practice for serious mental illness, American Psychological Association Annual Convention, Chicago, IL, August 2002.

#### Grant Activity:

Dynamic assessment of cognition in schizophrenia.

2003-2005 (Co-I)

National Institute of Mental Health (R03 MH068601), \$147,000 total costs

## **Lorie Richards, Ph.D., Clinical Assistant Professor**

### Publications:

McDowd, J., Filion, D., Pohl, P., Richards, L., & Stiers, W. (2003). Attentional abilities and functional outcomes following stroke. *Journal of Gerontology: Psychological Sciences*, 58, 45-53.

Duncan, P., Studenski, S., Richards, L., Gollub, S., Lai, S., Reker, D., Perera, S., Yates, J., Kock, V., Rigler, S., & Johnson, D. (In press) A randomized clinical trial of therapeutic exercise in sub-acute stroke. *Stroke*.

### Presentations:

Pohl, P., McDowd, J., Filion, D., Richards, L., & Stiers, W., "Implicit learning one month after mild and moderate stroke," Poster presented at the annual meeting of the Claude D. Pepper Older Americans Independence Centers, Durham, NC, 10 April 2003.

Lai, S., Duncan, P., Perera, S., Reker, D., & Richards, L., "Profile on impact of depressive symptoms after stroke," Poster presented at the annual Academy of Neurosciences meeting, Honolulu, HI, April 2003.

### Grant Activity:

Perceived needs of caregivers of older adults: Cultural influences  
7/2002 – 5/2003

June Belt & Lorie Richards  
Kansas Sunflower Foundation

Kansas Claude C. Pepper Older Americans Independence Center  
1/97 – 5/03 (Co-investigator on two demonstration projects)

Effects of fatigue and load carriage on the soldier's performance of time critical tasks  
7/02 – 5/03 (Co-I)  
Department of Defense

## **Mary Jane Youngstrom, M.S., O.T.R., F.A.O.T.A., Clinical Instructor**

### Publications:

Brown, C., Dunn, W., Youngstrom, M.J. (2003) Ecology of Human Performance. In E. Cohn, E. Crepeau, B. Schell (Eds.), Willard and Spackman's Occupational therapy (10<sup>th</sup> ed). Philadelphia, PA: Lippincott, Williams, & Wilkins.

Brown, C., Dunn, W., Youngstrom, M.J. (2003). The Ecology of Human Performance: A framework for considering the effect of context. In P. Kramer, J. Hinojosa, C. Royeen (Eds.), Current perspectives in human occupation: Participation in life. Philadelphia, PA: Lippincott, Williams, & Wilkins.

Brown, C., Youngstrom, M.J. (in press) Categories and Principles of Intervention. In C. Christiansen & C. Baum (Eds.), Occupational Therapy: Enabling function and well-being (3<sup>rd</sup> ed). Thorofare, NJ: Slack Incorporated.

Youngstrom, M.J., (2002). Introduction to the Occupational Therapy Practice Framework: Domain and Process. OT Practice, CE-1-8.

Youngstrom, M.J. (2002). The Occupational Therapy Practice Framework: The evolution of our professional language. *American Journal of Occupational Therapy*, 56(6), 607-608.

Youngstrom, MJ. (2004) Understanding and Applying the Occupational Therapy Practice Framework: Domain and Process. On-line course written for the American Occupational Therapy Association. Submitted.

Presentations:

Youngstrom, Mary Jane, “The Occupational Therapy Practice framework – Domain and Process,” Workshop for practitioners and educators. Eastern Carolina University; Greenville, NC, June 2002.

Youngstrom, Mary Jane, “The Occupational Therapy Practice Framework – Domain and Process,” Workshop for practitioners and educators. Northshore Community College; Boston, MA, September 2002.

Youngstrom, Mary Jane, “The Occupational Therapy Practice Framework – Domain and Process,” Kansas Occupational Therapy Association State Conference; Lawrence, Kansas, October 2002.

Youngstrom, Mary Jane, “The Changing Professional Landscape,” Kansas Occupational Therapy Association Capital District Meeting, Topeka, KS, January 2003.

Youngstrom, Mary Jane, “The Occupational Therapy Practice Framework – Domain and Process,” Workshop for practitioners and educators. Nova Southeastern University. Ft. Lauderdale, FL, February 2003.

Youngstrom, Mary Jane, “The Occupational Therapy Practice Framework - Domain and Process,” Workshop for practitioners and educators. Florida Gulf Coast University; Ft. Myers, FL, February 2003.

Youngstrom, Mary Jane, “The Occupational Therapy Practice Framework - Domain and Process,” Workshop for practitioners and educators. Wisconsin Occupational Therapy Education Council; Mt. Mary College, Milwaukee, WI, March 2003.

Youngstrom, Mary Jane, “Seventh Annual Practitioner’s Day – Enriching your professional Process: Understanding and applying the Occupational Therapy Practice Framework: Domain and Process,” Pacific University, Forest Grove, OR, April 2003.

Youngstrom, Mary Jane, "Applying the Occupational Therapy Practice Framework - Domain and Process," University of Michigan Health Care System – Physical Medicine and Rehabilitation Department of Occupational Therapy; Ann Arbor, MI, May 2003.

Youngstrom, Mary Jane, "The Changing Professional Landscape. Kansas Occupational Therapy Association, Kansas City District Meeting; Shawnee Mission, KS, May, 2003.

Youngstrom, Mary Jane, "The Occupational Therapy Practice Framework – Domain and Process," American Occupational Therapy Association Conference; Washington, D.C., June 2003.

Youngstrom, Mary Jane, "The Occupational Therapy Practice Framework: Framing and naming who we are and what we do," Keynote presentation at Ohio Fall OT Conference, Akron, OH, 26 September 2003.

Youngstrom, Mary Jane, "The Changing Professional Landscape," Kansas Southern District meeting of the Kansas Occupational Therapy Association, Wichita, KS, 11 February 2004.

Youngstrom, Mary Jane, "Enabling occupational performance and participation in education and in implementation," American Occupational Therapy Association conference, Minneapolis, MN, 16 May 2004.

**DEPARTMENT OF PHYSICAL THERAPY AND REHABILITATIVE SCIENCES**  
3056 Robinson Building  
588-1587

**Lara Boyd, PT, Ph.D., Assistant Professor**

Publications:

Boyd, L.A. & Winstein, C.J. (2004). Cerebellar stroke impairs temporal accuracy during implicit motor learning. *Neurorehabilitation Neural Repair*, 18, 134-143.

Boyd, L.A. & Winstein, C.J. (2004). Providing explicit information disrupts motor learning after basal ganglia stroke. *Learning & Memory*, 11, 388-396.

Harrington, D.L., Boyd, L.A., Mayer, A.R., Sheltraw, D.M., Lee, R.R., & Rao, S.M. (2004). Neural representation of interval encoding and decision making. *Cognitive Brain Research*, 21, 193-205.

Harrington, D.L., Lee, R.R., Boyd, L.A., Rapcsak, S.Z., & Knight, R. (2004). Evaluating the role of the cerebellum in temporal processing: Beware of the null hypothesis. *Brain*, 127, E14.

Harrington, D.L., Lee, R.R., Boyd, L.A., Rapcsak, S.Z., & Knight, R. (2004). Does the Representation of Time Depend on the Cerebellum? Effect of Cerebellar Stroke. *Brain*, 127, 1-14.

Boyd, L.A. & Winstein, C.J. (2003). The impact of explicit information on implicit motor-sequence learning following middle cerebral artery stroke. *Physical Therapy*, 83, 976-98.

Presentations:

Boyd, L., "Motor Learning and the Brain," University of Utah, Salt Lake City, UT 2004.

Boyd, L., "Compensatory Brain Activation after Stroke," University of Utah, Salt Lake City, UT, 2004

Boyd, L., "Motor Learning and the Brain. How does it do that? How can I help?," University of Kansas Medical Center, Kansas City, KS, 2004.

Boyd, L., "Observational Gait Analysis: Emphasis on Orthotics," Menorah Medical Center, Overland Park, KS, 2004.

Boyd, L., "Providing explicit information disrupts motor learning after basal ganglia stroke," Oregon Health Science University, Portland, OR, 2004.

Boyd, L., "Learning after stroke," Research Hospital, Kansas City, MO, 2004.

Boyd, L., "Motor Learning," Glenrose Rehabilitation Conference, Edmonton, Alberta, Canada, 2004.

Boyd, L., "Motor learning and the neurologic patient," Nebraska Medical Center, Omaha, NE, 2004.

Boyd, L., "The Impact of Explicit Information after Stroke," Braintree Rehabilitation Hospital Annual Conference, Boston, MA, 2003.

Boyd, L., "Motor Recovery after Neurologic Disease," Northern Arizona University, Flagstaff, AZ, 2003.

Boyd, L., "The Roles of the Basal Ganglia, Cerebellum, and Frontal Cortex in Learning and Memory. What are the Relationships between Brain Function, Behavior, and Therapeutic Choices?" American Physical Therapy Association, Combined Sections Meeting, Tampa, FL, 2003.

Boyd, L., "Formulating Representations of Time: An Event-Related fMRI Study," International Cognitive Neuroscience Conference, Marseilles, France, 2002.

Boyd, L., "Learning, rehabilitation and the neurologic patient: What are the relationships between brain function and behavior?" Arizona State Physical Therapy Association, Phoenix, AZ, 2002.

### **Denise Gobert, Ph.D.**

#### Publications:

Billinger, S., Gobert, D. & Vidoni, E. Total Body Reciprocal Movement Improves Upper Extremity Function in Chronic Stroke Survivors. *Journal of Neurologic Physical Therapy*.

Shin, Y.J., Gobert, D.V., Sung, S., Park, J.B. & Powers, E.J. Application of Cross Time-Frequency Analysis for to Postural Sway Behavior: the Effects of Aging and Visual Systems. *IEEE Trans Biomedical Engineering*.

Gobert, D., Bouckhout, V., Jernigan, S., Kapros, I., Santos, M. & John, E. Total Body Induced Reciprocal Training Improves Gait and Balance in Patients with Hemiparesis. *Journal of Rehabilitation Research and Development*.

Timberlake, G.T., Sharma, M.K., Gobert, D.V. & Maino, J.H. Distortion and size calibration of the scanning laser ophthalmoscope (SLO) laser-beam raster. *Optometry and Vision Science* (November 2003).

#### Presentations:

Gobert, D., "Successfully Treating the Dizzy Patient," Sacred Heart Hospital System, Pensacola, FL.

Gobert, D., "The Mind Body Connection to promote Caregiver Health," American Heart Association Stroke Survivor & Caregivers Annual Conference, Rieke Auditorium, University of Kansas Medical Center, 1 May 2004.

Gobert, D., "Obesity: The Weight of It All," Health Forum on Obesity, Starmont-Vail HealthCare System, Pozez Educational Center, Topeka, KS, March 2004.

Gobert, D., "Macular Degeneration: What We Know & Don't Know," Low Vision Sight Forum, Overland Park Community Center, Overland Park, KS, March 2004.

Gobert, D., "Keeping Things in Balance: What Works for You?" Dizziness & Balance Disorders Support Group, University of Kansas Medical Center, Kansas City, KS, February 2004.

Gobert, D., "Stroke Rehabilitation: Update 2004," Department of Rehabilitation Medicine, University of Kansas Medical Center, Kansas City, Kansas, March 2004.

Gobert, D., "Tai Chi for the Stroke Survivor," Young Stroke Survivor's Support Group, MidAmerica Rehabilitation Hospital, Overland Park, KS, March 2004.

Gobert, D., "Update on Vestibular Rehabilitation & Physical Therapy Practice Guidelines," Vestibular SIG Business Meeting, APTA Combined Sections Meeting, Nashville, TN, February 2004.

Gobert, D., "Promoting Healthy Aging and Maintaining Mobility and Activity," KU Med Rural Education, Pittsburg, KS, February 2004.

Gobert, D., "New Year's Resolution: I will manage my balance with the foods I eat," Dizziness & Balance Disorders Support Group, University of Kansas Medical Center, Kansas City, KS, January 2004.

Gobert, D. & Santos., "Visual-Vestibular Function in Persons Post an Acoustic Neuroma Resection," Kansas City Acoustic Neuroma Group, St. Joseph Hospital, Kansas City, KS, January 2004.

Gobert, D., "Successfully Managing the Dizzy Patient," St Mary's Medical Center, St Louis, MO, December 2003.

Gobert, D., Bouckhout, V. & Santos, M., "Effects Of Total Body Reciprocal Training On Ambulation Skills In Persons With Hemiparesis," American College of Sports Medicine Annual Meeting- Central States, Kansas City, KS.: #14, October 2003.

Gobert, D., "Vestibular Rehabilitation Techniques used for Evaluation & Treatment by the Rehabilitation Specialist," Kansas City VA Medical Center, October 2003.

Gobert, D., "Coordinating Movements for Balance in Chronic Stroke Survivors," St. Luke's Hospital System, Smithville, KS, September 2003.

Gobert, D., "Balance Exercise for Stroke Survivors," Stroke Seminars, North Kansas City Hospital System, September 2003.

Gobert, D., "Balance Exercise after Stroke," Stroke Seminars, American Stroke Association, Kansas City, KS, September 2003.

Gobert, D., "Evaluation & Treatment of the Vestibular Patient by Physical Therapists," St. Luke's South Hospital System, Kansas City, KS, September 2003.

Gobert, D., "Balancing your everyday life when you feel imbalanced," Dizziness & Balance Disorders Support Group, University of Kansas Medical Center, Kansas City, KS, August 2003.

Gobert, D., "Applied Research: What does it mean for the Chronic Stroke Survivor?" 1st Stroke Seminar, Kansas City, MO, August 2003.

#### Grant Activity:

Response of Chronic Stroke Survivors to Aerobic & Balance Training  
2003 – 2005 (PI)  
American Heart Association, \$121,000

Investigating Visual-Vestibular Function in Patients Post an Acoustic Neuroma Resection  
2002-04 (PI)  
School of Allied Health, KUMC, \$10,000

Vestibulo-Ocular Function in Person with Central Scotomas  
2002-04 (PI)  
Kansas Lions Sight Foundation, \$10,000

Stroke Wellness & Fitness Program  
2002-2004 (PI)  
American Stroke Foundation, \$67,000

Equipment Sponsorship in support of program  
2003 – 2004  
Theraband, Inc. \$1,960

#### **Patricia Kluding, PT, Ph.D., Assistant Professor**

#### Publications:

Kluding, P., McGinnis P.Q. (2003). Wellness for people with Parkinson's Disease: A case report [Abstract]. *Journal of Neurologic Physical Therapy*, 27(4), 170.

Kluding, P., Pinto Zipp G. (2004). Effect of ankle joint mobilization on ankle mobility and sit-to-stand in subjects with hemiplegia. *Journal of Neurologic Physical Therapy*, 28(2), 74-87.

Gallichio, J., Kluding, P. (2004). Virtual reality in stroke rehabilitation: Review of the emerging research. *Physical Therapy Reviews*, 9, 207-212.

Kluding, P., Billinger, S. (2005). Exercise-induced changes of the upper extremity in chronic stroke survivors. *Topics in Stroke Rehabilitation*, 12(1), 58-68.

Kluding, P., McGinnis P.Q. (in review). Multi-dimensional exercise for people with Parkinson's disease: A case report. *Physiotherapy Theory and Practice*.

#### Presentations:

Kluding P. "Wellness for People with Parkinson's Disease: A Case Report," Poster Presentation, APTA's Combined Section Meeting, 4 February 2004.

Kluding P. "Wellness for People with Parkinson's Disease: A Case Report," Platform Presentation, KPTA Spring Conference, 4 March 2004.

Kluding P. "Sit-to-Stand Ability Following Ankle Joint Mobilizations in Patients with Hemiplegia" Platform Presentation, KPTA Spring Conference, 4 March 2004.

#### Grant Activity:

Functional Changes Following Ankle Joint Mobilizations in Subjects with Hemiplegia 2004-2005 (PI)  
KUMC SAH Research Committee, \$10000.

### **Wen Liu, Ph.D., Assistant Professor**

#### Publications:

Liu, W., Kim, S. H., Long, J. T., Pohl, P. S., & Duncan, P. W. (2003). Anticipatory postural adjustments and the latency of compensatory stepping reactions in humans. *Neuroscience Letters*, 336, 1-4.

Santos, J.M., McIntire, K., Foecking, J. & Liu, .W. Effects of ankle bracing on motions of the knee and hip joints during trunk rotational tasks. *Clinical Biomechanics* (in press)

Liu, W. & Maitland,,M. The influence of individual anthropometric and mechanical variations on functional instability in the ACL-deficient knee during gait: a two-dimensional modeling study. *Annals of Biomedical Engineering*, 31 (10):1-9, 2003.

Hsiao-Wecksler, E.T., Katdare, K., Matson, J., Liu, W., Lipsitz, L.A., Collins, J.J. Predicting the dynamic postural control response from quiet-stance behavior in elderly adults. *Journal of Biomechanic*, 36: 1327-1333, 2003.

#### Presentations:

Liu, W., Nathan, L., Kim, S.H., McIntire, K., Zhang, J., Dascalos, S., Lyons, K.E., & Pahwa, R. "Three-dimensional gait analysis of the effect of bilateral sub-thalamic stimulation for patients with Parkinson's disease," 18th International Symposium on the 3-D Analysis of Human Movement. Tampa, Florida, April 2004.

Sentos, M., McIntire, K., Foecking, J. & Liu, W. "Effects of ankle bracing on knee motions during trunk rotational tasks," 18th International Symposium on the 3-D Analysis of Human Movement. Tampa, Florida, April 2004.

Liu, W., McIntire, K., Kim, S.H., Zhang, J., Dascalos, K.E., Lyons, K.E. & Pawha, R. "Quantitative assessment of functional improvement of deep brain stimulation for patients with Parkinson's disease" XV International Congress on Parkinson's Disease, Beijing, China, January 2004.

McIntire, K., Asher, M., Burton, D., Liu, W., "Quantified Rotational Strength Training: Preliminary study of an alternative method for idiopathic scoliosis management," Biennial Meeting of International Research Society of Spinal Deformities. Vancouver, British Columbia, Canada, June, 2004.

McIntire, K., Asher, M., Burton, D., Liu, H. & Liu, W., "Patterns of Trunk Rotational Strength in Healthy Adults," Biennial Meeting of International Research Society of Spinal Deformities. Vancouver, British Columbia, Canada, June, 2004.

Kim, S.H., Maletsky, R., Zahner, L., Mukherjee, M. & Liu, W.. "Effects of a postural feedback training on gait after stroke," Annual Kansas City Life Science Research Conference. Kansas City, MO, May, 2004.

#### Grant Activity:

Quantified torsional strength training for management of idiopathic scoliosis  
09/02-06/04 (PI)  
Scoliosis Research Foundation, direct cost \$84,095

Sensory-enhanced motor training for paretic arm/hand  
01/03-12/04 (PI)  
National Institute of Health (NIH), NINDS (R21 NS043331-01 A1), direct cost \$237,500

Electro-acupuncture and strengthening exercise for hemiplegic elbow and wrist joints  
04/03-06/04 (PI)  
Clinical Pilot Award, Research Institute of University of Kansas Medical Center, direct cost \$25,000

Development of a robot-aided motor training with enhanced sensory inputs for stroke rehabilitation  
07/03-07/06 (PI)  
National Science Foundation (NSF), Division of Bioengineering & Environ Systems (BES-0302466), direct cost \$326,598

## **Janice Loudon, Ph.D., Associate Professor**

### Publications:

Loudon, J.K., Gajewski, B.L., Goist, H.L. & Loudon, K.L.(2004) The effectiveness of exercise for treatment of patellofemoral pain syndrome. *Journal of Sport Rehabilitation*. 13:323-342.

Loudon, J.K. (2003) guest editor, Preventative Sports Medicine. *J Orthop Sports Phys Ther* 33(10):556.

### Presentations:

Loudon, J. "Functional Exercise Training" Fall Kansas Physical Therapy Association Meeting, Lawrence, KS, Fall 2004.

Loudon, J., "Gait, running, and functional training," District 5 Athletic Training Annual Conference, Omaha, NE, Spring 2004.

Loudon, J., "The Young Athlete's Shoulder," Children's Mercy Hospital, Kansas City, MO, Spring 2004.

Loudon, J., "The Young Athlete's Knee" Children's Mercy Hospital, Kansas City, MO, Fall 2003.

### Grant Activity:

Vibration, Proprioception, and Low Back Stability  
NIH, HHS-NIOSH, \$70,355

Lumbar Spine Proprioception and Low Back Stability  
2003-2006  
Whitaker Foundation, \$239,700

Comparison of two stretching techniques for treatment of plantar fasciitis  
Funded by JAS agency, \$1,250

## **Patricia Pohl, Ph.D., Associate Professor**

### Publications:

Liu, W., Kim, S. H., Long, J. T., Pohl, P. S., & Duncan, P. W. (2003). Anticipatory postural adjustments and the latency of compensatory stepping reactions in humans. *Neuroscience Letters*, 336, 1-4.

Pohl, P. S., Dunn, W., & Brown, C. (2003). The role of sensory processing in the every day lives of older adults and potential impact on ability to age in place. *OTJR: Occupation, Participation and Health*, 23, 99-106.

Pohl, P. S., Perera, S., Duncan, P. W., Maletsky, R., Whitman, R., & Studenski, S. (2004). Gains in distance walking in a 3-month follow-up poststroke: What changes? *Neurorehabilitation and Neural Repair*, 18, 30-36.

Kemper, S., McDowd, J., Pohl, P., Herman, R., & Jackson, S. (in press). Revealing language deficits following stroke: the cost of doing two things at once. *Aging, Neuropsychology and Cognition*. (In Press)

#### Presentations:

Pohl, P., Research poster at Combined Section Meeting (CSM) of APTA. February 2004.

Pohl, P., "Can your patient walk and talk?" Lecture at Stroke Special Interest Group meeting at CSM, February 2004.

Pohl, P., "Procedural learning using the hand ipsilateral to stroke-related brain damage."

Pohl, P., McDowd, J. M., Filion, D., Richards, L. G., & Stiers, W. Poster at NIH Trainee Workshop, Silver Spring, MD, December 2003.

Pohl, P.S., McDowd, J. M., Filion, D., Richards, L. G., & Stiers, W. Poster at Faculty Research Day, KUMC, November 2003.

#### **Irina V. Smirnova, M.S., Ph.D., Assistant Professor**

#### Publications:

Daniels, P.J., Bittel, D., Smirnova, I.V., Winge, D.R. & Andrews, G.K. (2002) Mammalian metal response element-binding transcription factor-1 functions as a zinc sensor in yeast, but not as a sensor of cadmium or oxidative stress. *Nucleic Acids Research*, 30, 3130-3140.

Chi, L., Stehno-Bittel, L., Smirnova, I.V., Stechschulte, D.J. & Dileepan, K.N. (2003) Signal transduction pathways in mast cell granule-mediated endothelial cell activation. *Mediators of Inflammation*, 12, 79-87.

Fedoryak, O.D., Searls, Y., Smirnova, I.V., Burns, D. & Stehno-Bittel, L. (2004) Spontaneous nuclear Ca<sup>2+</sup> oscillations in subcellular compartments of vascular smooth muscle cells rely on different Ca<sup>2+</sup> pools. *Cell Research*, 14, 379-88.

Searls, Y., Smirnova, I.V., Fegley, B.R. & Stehno-Bittel, L. (2004) Exercise attenuates diabetes-induced ultrastructural changes in rat cardiac tissue. *Medicine & Science in Sports & Exercise*, 36, 1863-70.

Bilgen M, Al-Hafez B, Malone T, Smirnova IV: Ex vivo magnetic resonance imaging of rat spinal cord at 9.4 T. *Magnetic Resonance Imaging*, 2005, in press.

Bilgen, M., Loganathan, R., Al-Hafez, B. & Smirnova, I.V. (2005) Characterization of alterations in diabetic myocardial tissue using high resolution MRI. *International Journal of Cardiovascular Imaging*, under revision.

Presentations:

Smirnova, I.V., Novikova, L. & Stehno-Bittel, L., "Diabetes induces upregulation of alpha-smooth muscle actin expression in myocardial tissue," American Heart Association Scientific Conference on Advances in the Molecular and Cellular Mechanisms of Heart Failure, Snowbird Conference Center, Salt Lake City, UT, 21-25 August 2002; KUMC Faculty Research Day, 13-14 November 2002; 2nd Annual Kansas City Life Sciences Research Day, UMKC, 27 March 2003.

Smirnova, I.V. & Stehno-Bittel, L., "Emerging trends in diabetic care," KUMC, 16 October 2002.

Smirnova, I.V., "The benefits of exercise for diabetic heart disease," KUMC Cray Diabetes Management Center, 30 October 2002.

Burns, D.M., Smirnova, I.V., Searls, Y., Stehno-Bittel, L. & Kawase, T. "Calcitonin gene-related peptide simultaneously increases intracellular calcium ion, and polarizes Em in osteogenic human MG63 cells," KUMC Faculty Research Day, 13-14 November 2002.

Smirnova, I.V., Kibiryeveva, N., Searls, Y., Wolfe, M. & Stehno-Bittel, L., "Reversal of diabetes-induced myocardial fibrosis by exercise training" American Physical Therapy Association Annual Meeting, Tampa, FL, 12-16 February 2003.

Smirnova, I.V., "The benefits of exercise for diabetic heart and how to fit in proteomics?" Midwest Research Institute, Kansas City, KS, 13 March 2003.

Searls, Y., Loganathan, R., Smirnova, I.V. & Stehno-Bittel, L., "Ca<sup>2+</sup> regulating proteins in vascular smooth muscle cells altered by hyperglycemia" 2nd Annual Kansas City Life Sciences Research Day, UMKC, 27 March 2003.

Smirnova, I.V., Foecking, J., Novikova, L. & Stehno-Bittel, L. "Proteomic approach to study the beneficial effects of exercise on diabetic heart" National Institute of Health Meeting on Proteomics in Diabetes, Natcher Conference Center, NIH, Bethesda, MD, 23-25 April 2003; Stowers Institute for Medical Research and the American Society for Biochemistry and Molecular Biology Meeting on Proteomic Solutions in Cellular and Developmental Biology and Medicine, Stowers Institute for Medical Research, Kansas City, MO, 2-4 May 2003; KUMC Faculty Research Day, 6 November 2003; PT Student Research Day, 25 November 2003; American Physical Therapy Association Annual Meeting, Nashville, TN, 4-8 February 2004.

Foecking, J., Novikova, L., Stehno-Bittel, L., Smirnova, I.V., "Exercise training modulates TGF $\beta$ 1 signaling in diabetic myocardium" 63rd Scientific Sessions of American Diabetes Association, New Orleans, LA, 13-17 June 2003; American Heart Association Scientific Conference on Molecular Mechanisms of Growth, Death and Regeneration in the Myocardium: Basic Biology and Insights into Ischemic Heart Disease and Heart Failure, Snowbird Conference Center, Salt Lake City, UT, 13-17 August 2003.

Fischer, K.J., Novak, E.A., Smirnova, I.V., Reddy, G.K. & Stehno-Bittel, L. "The effect of diabetes and exercise on knee joint stiffness and MCL structural properties in the rat," Summer Bioengineering Conference, Sonesta Beach Resort, Key Biscayne, FL, 25-29 June 2003.

Smirnova, I.V., "Research update in diabetes: Human islet isolation in Kansas City," presented research on how exercise improves diabetic heart muscle structure, The Saint Joseph Community Center for Health and Education, Saint Joseph Hospital, Kansas City, MO, 10 July 2003.

Searls, Y., Loganathan, R., Smirnova, I.V. & Stehno-Bittel, L. "Ca<sup>2+</sup> regulating proteins in vascular smooth muscle cells altered in diabetes" by KUMC Faculty Research Day, 6 November 2003; PT Student Research Day, 25 November 2003.

Burns, D.M., Stehno-Bittel, L., Smirnova, I.V. & Kawase, T. "CGRP neuropeptide regulates the function of immature osteoblastic human MG63 cells through complex intracellular signaling initiated by a type-I CGRP receptor," KUMC Faculty Research Day, 6 November 2003.

Bilgen, M., Hedding, A., Farooque, M., Gustafson, K., Nudo, R., Festoff, B.W., Toby, B., Smirnova, I., McIff, T., Arnold, P., Berman, N. & Brooks, W., "High Resolution Magnetic Resonance Imaging Studies at 9.4 T," KUMC Faculty Research Day, 6 November 2003.

Smirnova, I.V., "Diabetic cardiomyopathy and effects of exercise," Kansas City Diabetes Research Interest Group meeting, KUMC, 19 November 2003.

Fischer, K.J., Novak, E.A., Smirnova, I.V., Reddy, G.K. & Stehno-Bittel, L., "The effect of diabetes and exercise on stress relaxation of the knee joint in the rat," 50th Annual Meeting of the Orthopedic Research Society, San Francisco, CA, 7-10 March 2004.

Smirnova, I.V., Loganathan, R., Stehno-Bittel, L. & Bilgen, M., "Detection of abnormalities in the diabetic heart using MRI," 3rd Annual Kansas City Life Sciences Research Day, Overland Park Convention Center, Overland Park, KS, 4 June 2004; XVIII World Congress of the International Society for Heart Research, Brisbane, Australia, 7 - 11 August 2004.

#### Grant Activity:

Can a drug replace exercise to improve the diabetic heart?

01/01/04-12/31/07 (PI)

Scientist Development Grant, American Heart Association, National, \$236,364 direct costs, \$260,000 total costs

SABIT training grant

09/01/04-08/31/05 (PI)

US Department of Commerce, \$13,700 direct costs

Can drugs replace exercise?

Pilot grant

03/01/03-08/31/04 (PI)

Lied Endowed Basic Science Research Fund, \$35,000 direct costs

2004 Shared Research Equipment Award to purchase small animal calorimeter Eco-Oxymax

12/01/03-06/30/04 (PI)

KUMC Research Institute, \$15,000 direct costs

2004 Shared Research Equipment Award to purchase equipment for Magnetic Resonance Imaging of research animals

12/01/03-06/30/04 (Co-I)

KUMC Research Institute, \$25,000 direct costs

Mechanisms of fibrosis in diabetic heart and influence of exercise Pilot grant

02/01/02-07/31/03 (PI)

Lied Endowed Basic Science Research Fund, \$35,000 direct costs

Evaluation of the effects of long-acting anesthetics on wound healing

12/19/01-12/18/02 (Co-I)

Research grant

Pharmaceutical Company, \$29,366 direct costs, \$44,049 total costs

Proposal to train intern from the former Soviet Union

Training grant

05/01/01-04/30/02 (Co-I)

US Department of Commerce, SABIT, \$9,545 direct costs

### **Lisa Stehno-Bittel, Ph.D., Associate Professor and Chairperson**

#### Publications:

Timberlake, G.T., Reddy, G.K., Stehno-Bittel, L., Weber, J.F., Amslinger, S. & Givens, R.S. (2002). Photoactivated coumaryl-diazopyruvate fluorescent label for amine functional groups of tissues containing type-1 collagen. *Photochem. Photobiol.* 76:473-479.

Chi, L., Stehno-Bittel, L., Smirnova, I.V., Stechschulte, D. & Dileepan, K.N. (2003). The effects of mast cell granules on calcium mobilization, MAP kinase activation and NF-kB translocation in endothelial cells. *Mediators of Inflammation*, 12, 79-87.

Burns, D., Stehno-Bittel, L. & Kawase, T. (2004). Calcitonin gene-related peptide elevates calcium and polarizes membrane potential in MG63 cells by both cAMP-independent and – dependent mechanisms. *Am. J. Physiol.*, 287, C457-C467.

Fedoryak, O.D., Searls, Y., Smirnova, I.V., Burns, D. & Stehno-Bittel, L. (2004). Spontaneous nuclear Ca<sup>2+</sup> oscillations in subcellular compartments of vascular smooth muscle cells rely on different Ca<sup>2+</sup> pools, *Cell Res*, 14, 379-388.

Searls, Y., Smirnova, I.V., Fegley, B.R. & Stehno-Bittel, L. (2004). Exercise attenuates diabetes-induced ultrastructural changes in rat cardiac tissue, in press, *Med. Sci. Sports Ex*, 36. 1863-1870.

Smirnova, I.V., Novikova, N. & Stehno-Bittel, L. (2004) Diabetes induces upregulation of alpha-smooth muscle actin expression in myocardial tissue.

Buñag, R.D., Angel, C., Smirnova, I.V., Searls, Y. & Stehno-Bittel, L. (2004). Pressor responses to norepineprine, but not to angiotensin, reduced in normotensive diabetic rats, under review. (S)

Searls, Y., Buñag, R.D. & Stehno-Bittel, L. (2004). Exercise attenuates structural changes in streptozotocin-induced diabetic rat aorta. (S)

Searls, Y., Loganathan, R., Smirnova, I.V. & Stehno-Bittel, L. (2004). Intracellular calcium regulating proteins in vascular smooth muscle cells are altered by hyperglycemia. (S)

#### Presentations:

Smirnova, I.V., Novikova, L., Stehno-Bittel, L., “Diabetes induces upregulation of alpha-smooth muscle actin expression in myocardial tissue,” American Heart Association Scientific Conference on Advances in the Molecular and Cellular Mechanisms of Heart Failure, Snowbird Conference Center, Salt Lake City, UT, 2002.

Foecking, J., Novikova, L., Stehno-Bittel, L., Smirnova, I.V., “Exercise training modulates TGF1 signaling in diabetic myocardium,” American Heart Association Scientific Conference on Molecular Mechanisms of Growth, Death and Regeneration in the Myocardium: Basic Biology and Insights into Ischemic Heart Disease and Heart Failure, Snowbird Conference Center, Salt Lake City, UT, 2003.

Smirnova, I.V., Foecking, J., Novikova, L. & Stehno-Bittel, L., “Proteomic approach to study the beneficial effects of exercise on diabetic heart,” National Institute of Health Meeting on Proteomics in Diabetes, Natcher Conference Canter, NIH, Bethesda, MD, 2003.

Smirnova, I.V., Foecking, J., Searls, Y., Novikova, L. & Stehno-Bittel, L., “Proteomic approach to study the beneficial effects of exercise on diabetic heart,” KUMC Faculty Research Day, 2003.

Fischer, K.J., Novak, E.A., Smirnova, I.V., Reddy, G.K. & Stehno-Bittel L., “The effect of diabetes and exercise on knee joint stiffness and MCL structural properties in the rat,” Summer Bioengineering Conference, Sonesta Beach Resort, Key Biscayne, FL, 2003.

Searls, Y., Loganathan, R., Smirnova, I.V. & Stehno-Bittel, L. “Ca<sup>2+</sup> regulating proteins in vascular smooth muscle cells altered in diabetes,” KUMC., 2003.

Smirnova, I.V., Kibiryeveva, N., Searls, Y., Wolfe, M. & Stehno-Bittel, L., “Reversal of diabetes-induced myocardial fibrosis by exercise training,” American Physical Therapy Association Annual Meeting, Tampa, FL, 2003.

Searls, Y., Loganathan, R., Smirnova, I.V., Stehno-Bittel, L., “Ca<sup>2+</sup> regulating proteins in vascular smooth muscle cells altered by hyperglycemia,” 2<sup>nd</sup> Annual Kansas City Life Sciences Research Day, UMKC, 2003.

Foecking, J., Novikova, L., Stehno-Bittel, L., Smirnova, I.V., “Exercise training modulates TGF1 signaling in diabetic myocardium,” 63rd Scientific Sessions of American Diabetes Association, New Orleans, 2003.

Burns, D.M., Stehno-Bittel, L., Smirnova, I.V. & Kawase, T. "CGRP neuropeptide regulates the function of immature osteoblastic human MG63 cells through complex intracellular signaling initiated by a type-I CGRP receptor," KUMC Faculty Research Day, 2003.

Fischer, K.J., Novak, E.A., Smirnova, I.V., Reddy, G.K., & Stehno-Bittel, L., "The effect of diabetes and exercise on stress relaxation of the knee joint in the rat," 50th Annual Meeting of the Orthopedic Research Society, San Francisco, CA, 2004.

Smirnova, I.V., Foecking, J., Novikova, L. & Stehno-Bittel, L., "Proteomic approach to study the beneficial effects of exercise on diabetic heart," American Physical Therapy Association Annual Meeting, Nashville, TN, 2004.

Smirnova, I.V., Loganathan, R., Stehno-Bittel, L. & Bilgen, M., "Detection of abnormalities in the diabetic heart using MRI," XVIII World Congress of the International Society for Heart Research, Brisbane, Australia, 2004.

Grant Activity:

Impact of exercise on Parkinson's Disease Therapy  
2003 – 2008  
NIH, R01, \$1,472,000 total direct cost

Calcium Regulates Nuclear Pore Structure/Function  
1999 – 2005 (PI)  
NIH, R01, \$1,365,295 total direct cost

Mechanism and Therapy of SHIV Encephalitis in Macaques  
2003-2007, \$1,597,000 total direct cost

Islet transplantation for type 1 diabetes  
2003 – 2005 (Co-PI)  
Hall Foundation, \$497,000 total direct cost

Biomedical Engineering – Research Experience for Undergraduates  
2002 – 2005 (Co-I)  
NSF Training Grant, \$231,755 total direct costs

Arterial connective tissue and diabetes  
2004 – 2007 (Mentor)  
NIH, \$78,000 total direct cost

Electrophysiology of Hearing Loss  
2001-2004 (PI)  
Hall Foundation, \$100,000 total direct cost

Real-time palpation imaging for improved detection and discrimination of breast abnormalities  
2000 – 2003 (Co-I)  
Department of Defense, \$440,718 total direct cost

**Marcie Swift, M.S., P.T., FAAOMPT, Clinical Instructor**

Presentations:

Swift M., "Molecular Basis for Current Pharmacological and Rehabilitative Interventions in Osteoporosis," PhD faculty and PhD students, 24 November 2003.

Swift M., "Role of CNS in the production of pain and disability," PhD faculty and PhD students, 13 May 2004.

Grant Activity:

Lumbar spine proprioception and low back stability  
09/01/2003-08/31/2005 (Co-PI)  
Whitaker Foundation, \$72,836

**DEPARTMENT OF NURSE ANESTHESIA EDUCATION**  
2026 Delp Pavillion  
588-6612

**Carol G. Elliott, CRNA, MPA, Assistant Professor and Chairman, Nurse Anesthesia Education**

Publications:

Kovac, A., Swanson, B., Elliott, C., Wetzel, L., "Effect of Distance and Infusion Rate on Operation of Medfusion 2010 Infusion Pump during Magnetic Resonance Imaging (MRI)," *Journal of Clinical Anesthesia*, 14:246-251, June 2002.

Presentations:

Elliot, C., "Psychometric Testing of the NDNQI Adapted Index of Work Satisfaction Scale," Poster Presentation, Midwest Nursing Research Society, Annual Research Conference, Grand Rapids, MI.

Elliot, C., "Psychometric Testing of the NDNQI Adapted Index of Work Satisfaction Scale," Poster – Abstract Presentation, Sigma Theta Tau International, 37th Biennial Convention, Toronto, Ontario, Canada.

Elliot, C., "A Program Director's Worst Nightmare," American Association of Nurse Anesthetists, Annual Meeting, Seattle, WA.

**Caryl Goodyear-Bruch, CCRN, MSN, Assistant Clinical Professor, Nurse Anesthesia Education**

Publications:

Goodyear, C., Long, R., Simon, P., & Pierce, J. Pressure support ventilation and diaphragm shortening in the rat model. (accepted for publication *AANA Journal*, August 2004; expected date of publication, June 2005).

Goodyear-Bruch, C., Simon, K, Hall, S., Mayo, M., & Pierce, J. (2005). Comparison of a visual to a computer-assisted technique for detecting apoptosis. *Biol. Res Nurs*, 6, 180-186.

Pierce, J., Goodyear-Bruch, C., Jegethesan, J., & Clancy, R. (2004). Diaphragm apoptosis: Alleviation by dopamine. [Abstract] *Critical Care Medicine*, 32, (Supplement):A121.

Pierce, J., Goodyear-Bruch, C., et al. (2003). Comet DNA analysis of the diaphragm [Abstract]. *AJCC*, 12, 275.

Goodyear-Bruch, C., & Pierce, J. (2002). Oxidative stress in critically ill patients. *AJCC*, 11, 543-551.

Presentations:

Goodyear, C., "Effect of Dopamine on Diaphragm Apoptosis," (poster), Midwest Nursing Research Society, April 2005.

Goodyear, C., "Treating the Dangers of Free Radicals In Critically Ill Patients," Critical care symposium, St. Louis Chapter, AACN, March 2005.

Goodyear, C., "AACN Lives It's Contribution to Our Bold Voice," March 2005, Visions, critical care symposium, KC Chapter, AACN; and March 2005, Critical care symposium, St. Louis Chapter, AACN.

Goodyear, C., "Diaphragm apoptosis: Alleviation by Dopamine," (poster), Society of Critical Care Medicine conference, January 2005.

Goodyear, C., "Psychometric Evaluation of the Nursing Work Index-Revised," (poster) Midwest Nursing Research Society conference, Chicago, March 2002.