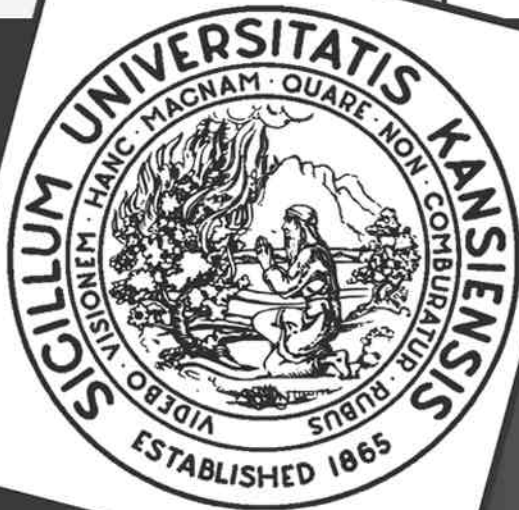


University of Kansas
School of Allied Health

Research & Scholarship Report



1999-
2000

Introduction

The School of Allied Health (SAH) is pleased to present its first Annual Research Report. Research has been an integral part of the School since its establishment in 1974. This publication marks the inauguration of an annual summary of SAH research and scholarly activities. The primary purpose of this report is to educate fellow scientists, internal and external to the University, about the broad spectrum of SAH research endeavors and the contributions of allied health scientists to biomedical and bio-behavioral research advances at the University of Kansas Medical Center.

The School of Allied Health is the most diverse academic unit within the University of Kansas Medical Center, comprising ten 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 and the U.S. Department of Education, provide the majority of external funding to support SAH research. In addition, funding is also received from local, regional and national foundations and associations, as well as from benefactors of the School.

During the past year, the SAH published its *2000 – 2003 Strategic Plan*. Goals related to research efforts are cited in this Annual Report and include strengthening of the School's research infrastructure, creating a research intensive environment that will advance the allied health sciences and promote the health and well-being of our communities.

SAH faculty members have a strong record of collaborative research activities among departments of Allied Health and other University of Kansas schools and centers. As Associate Dean for Research, I am proud of the faculty and the work that they have done in advancing the science of their professions. We are in a new century of scientific discovery! The School of Allied Health is positioned to be a leader in interdisciplinary research, its faculty contributing to an era of unprecedented progress in life sciences research.

John Ferraro, PhD
Associate Dean for Research

DISSEMINATING SCIENCE AND SCHOLARSHIP

Strategic Plan for Research & Scholarship, 2000 – 2003

- I. Recruit and sustain research faculty in the Allied Health Sciences

- II. Increase research collaboration among the Departments in the SAH and other University of Kansas Schools and Centers

- III. Strengthen the research infrastructure of the SAH

SAH Faculty Research and Scholarly Activities for 1999 – 2000
(Listed by Department)

Department of Biometry
3012 Hinch Hall
588-5566

Khatab M. Hassanein, Ph.D. Professor and Chair

Research Interests

- Pharmacokinetic and compartmental analysis
- Analysis of complex research models
- Statistical Modeling with Quantile Functions
- Shrinkage Estimation
- Extreme value analysis in Medicine and Engineering
- Survival analysis in Medicine and Engineering
- Order and Nonparametric statistics
- Estimation and Test of Hypothesis for Quantiles
- Reliability

Publications

Cavanaugh, T.B., Lind, D.M., Cutarelli, P.E., Mack, R.J.S., Durrie, D.S. and Hassanein, K.M., (1999) Phototherapeutic Keratectomy for Recurrent Erosion Syndrome in Anterior Basement Membrane Dystrophy. Ophthalmology, 106(5): 971-976.

Zhao, G.L., Boysen, C.D., Brown, E.F., Hassanein, K.M., Holmes, F.F., Holmes, G.E.F. (1999) Very Long Survival in Pediatric Cancer Between 1944 and 1993. Chin. Med. J., 112(7): 615-619.

Saleh, A.K.Md.E., Hassanein, K.M. and Brown, E.F. Stability Analysis of Pharmaceutical Products in Multiple Batches: Preliminary Test and Shrinkage Approach. Accepted for publication in the Journal of Applied Statistical Science.

Reeves, K.D. and Hassanein, K.M. Randomized Prospective Placebo Controlled Double Blind Study of Dextrose Prolotherapy for Osteoarthritic Thumbs and Finger (DIP, PIP and Trapeziometacarpal) Joints: Evidence of Clinical Efficacy. Jnl Alt. Compl. Med. 2000 (In press).

Hassanein, K.M. Estimation of the Parameters of the Lorenz Distribution by the Use of Few Sample Quantiles. Accepted for publication.

Presentations

Olney, B., Hassanein, K.M. and Colei, V. (2000) Caudal Blocks in Clubfoot Surgery. 113th American Orthopedic Association Annual Meeting.

Reyes, J.P., Watkins III, J., Wilkinson, S.B., Hassanein, K.M., Frei, M.G., Osorio, I., (1999) Poly-Frequency Stimulation Delays Kindling in Rats. American Epilepsy Society 53rd Annual Meeting.

Ruth Hassanein, Ph.D., Professor

Research Interests

- Design and analysis of biomedical research studies.
- Needs assessment techniques.

Publications

Penick, E.C., Hassanein, R.S., et al., “The Comparative Validity of Eleven Alcoholism Typologies”. Journal of Studies on Alcohol, 6(2): 188-202 (1999).

Weston, A.P., Badr, A.S. and Hassanein, R.S., “Prospective Multivariate Analysis of Factors Predictive of Complete Regression of Barrett’s Esophagus”. American Journal of Gastroenterology, 94: 3420-3426 (1999).

Weston, A.P., Badr, A.S. and Hassanein, R.S., “Prospective Multivariate Analysis of Clinical, Endoscopic and Histologic Factors Predictive of the Development of Barrett’s Multifocal High-Grade Dysplasia or Adenocarcinoma”. American Journal of Gastroenterology, 94(12): 3413-3419 (1999).

Weston, A.P., Badr, A.S. Topalovski, M., Cherian, R., Dixon, A. and Hassanein, R.S., “Prospective Evaluation of the Prevalence of Gastric Helicobacter pylori Infection in Patients with GERD, Barrett’s Esophagus, Barrett’s Dysplasia and Barrett’s Adenocarcinoma”. American Journal of Gastroenterology, 95(2): 387-394 (2000).

Edward F. Brown, Ph.D. , Assistant Professor

Research Interests

- Scientific programming of original mathematical and statistical research.
- Mathematical modeling of communication networks using LAQT.
- Long-term dependencies on the operational characteristics of networks.
- Numerical analysis as it pertains to computer implementation.
- Algorithm design and analysis.
- Bootstrap, Jackknife and Monte Carlo techniques for parameter estimation.
- Detecting shifts in process parameters from their normal operations.
- Generation of distribution-free random numbers.
- Database management of research data and clinical trial studies.
- Programming of statistical analyses to support faculty and student research

Publications

Gessert, C.E., Mosier, M.C., Brown, E.F., Frey, B., Tube Feeding in Nursing Home Residents with Severe and Irreversible Cognitive Impairment, Submitted to JAGS.

Rigler S, Webb M, Redford L, Brown E, Wallace D. Weight Trends during Antidepressant Use in Long-Term Care: Do Weight Outcomes Differ by Drug Family? Submitted to J Am Geriatr Society (in preparation).

Rigler SK, Webb M, Redford L, Brown E, Wallace D. Antidepressant Use in Nursing Facilities: Changing Patterns in the 1990's (in preparation).

Presentations

Rigler S, Zhou J, Webb M, Redford L, Brown E. (1999) Antidepressant Use in Medicaid and Non-Medicaid Long-Term Care Patients. Annual Meeting of the Gerontologic Society of America (GSA).

Rigler, S., Webb, M., Redford, L. and Brown, E., (1999) Antidepressant Prescribing Trends in long-Term Care, Annual Meeting of the American Geriatrics Society.

Dept. of Biometry Submitted Grants

Urban-Rural Sedative & Anxiolytic Use in Long Term Care

- National Institute on Aging
- April 2001 and run for 5 years.
- \$639,908 over 5 years.
- This project is a MDS analysis of rural-urban prescribing patterns for sedative-hypnotics and benzodiazepine medications

Pharmacological Treatment of Antisocial Alcoholics with Nortriptyline.

- Agency #1: NIH - National Institute for Alcohol and Alcoholism Abuse.(NIAAA)
- Agency #2: Veteran's Affairs Merit Review
- Spring 2001 thru Spring 2004
- \$750,000
- Comparison of Nortriptyline vs. Placebo in Antisocial Personality Disorder Alcoholics. This grant is based on pilot data done by our group at the VA in 1990-1993 suggesting that this subgroup of male alcoholics, which is a prevalent and "hard to treat" subtype, may benefit from treatment with the antidepressant, nortriptyline, especially in regard to their drinking problem and if they report affective/anxiety symptoms in the month before enrolling in the alcohol treatment program.

Grants

Dr. Khatab Hassanein, Dr. Ruth Hassanein and Dr. Ed Brown serve as Statistical Consultants on several funded and proposed grants with researcher in the three schools at Kansas University Medical Center.

Department of Clinical Laboratory Sciences
1014 KUMed Hospital
588-5220

Venus Ward, PhD Assistant Professor and Chair

Research Interest

Leadership styles among clinical laboratory scientists
Learning styles among clinical laboratory science students

Jocelyn Hulsebus, PhD Assistant Professor and Assistant Chair

Research Interest

Metabolic biochemistry with emphasis on hormonal interaction

Publications

Hulsebus JJ (submitted, publication expected 2001). Chapter 24, Introduction to Hormones and Endocrinology; Chapter 25, Hypothalamus and Pituitary Endocrinology; Chapter 28, Adrenocortical Endocrinology; Chapter 29, Adrenal Medullary Endocrinology. In: Clinical Chemistry: Concepts and Applications, (2nd ed.), Anderson SC & Cockayne S (Eds), McGraw-Hill

Patricia Hargrave, PhD Assistant Professor

Research Interest

Alternative methods for delivery of clinical laboratory science education
Health promotion/disease prevention of infectious cardiovascular diseases
Cultural diversity in problem solving styles

Presentations

Johnson L, Green V & Hargrave P. An Example of an ABO Typing Discrepancy. American Society for Clinical Laboratory Science Annual Meeting, San Francisco, CA, 2000. (Poster)

Zuchowski L, Sanganee N & Hargrave P. One Clinical Laboratory's Interactions with Public Health for the Identification and Management of Food-Borne Listeriosis. American Society for Clinical Laboratory Science Annual Meeting, San Francisco, CA, 2000. (Poster)

Hargrave P, Godwin J & Lentz M. The Clinical Laboratory's Role in Determining the Differential Diagnosis of Space Occupying Lesions of the Liver. American Society for Clinical Laboratory Science Annual Meeting, San Francisco, CA, 2000.

Publications

Hargrave PK & Adams S (2000). Appendix A, Selected Bacteriologic Culture Media & Appendix B, Selected Mycology Media, Fluids, and Stains. In: Textbook of Diagnostic Microbiology, (2nd ed.), Mahon CR & Manuselis G (Eds), WB Saunders Co.

Abstracts

Johnson L, Green V & Hargrave P. An Example of an ABO Typing Discrepancy. Clinical Laboratory Science 13(3):141, 2000.

Zuchowski L, Sanganee N & Hargrave P. One Clinical Laboratory's Interactions with Public Health for the Identification and Management of Food-Borne Listeriosis. Clinical Laboratory Science 13(3):142-3, 2000.

Hargrave P, Godwin J & Lentz M. The Clinical Laboratory's Role in Determining the Differential Diagnosis of Space Occupying Lesions of the Liver. Clinical Laboratory Science 13(3):145, 2000.

Peggy Brown, PhD Associate Professor

Research Interest

New techniques, methods and automation in Immunohematology
Preventing/minimizing platelet alloimmunization of patients receiving long-term platelet support
Interactive educational Blood Bank computer software

Presentations (Abstracts)

Abramot L, Brown P et.al. Reduced Donor Exposure in Infants <1000 g by a Dedicated Blood Transfusion Protocol. Presented at the Society for Pediatric Research meeting, Boston, MA, 2000.

Cytotechnology
1600 KUMed Hospital
588-1179

Marilee Means, Ph.D., SCT(ASCP)

Research Interests

- Using Interactive Media in Cytotechnology Education
- Relationships between Hyperkeratosis, Coccobacilli, and Lack of Endocervical Component in Cervical Cytology, ASCUS Cytology

Recent publications and presentations

Effective Visual Presentations

American Society of Cytopathology (ASC) Annual Meeting, Nov. 1999, Sacramento, CA
Program Faculty Seminar

Accuracy in Cytodiagnosis: A Cytotechnologist's Viewpoint

2nd Annual North Florida Cytopathology Seminar
University of Florida, May 1997

The Cytopathology of ASCUS

Lecture and Workshop

American Society for Cytotechnology

April 4, 1997

Managed Care and Its Impact on the Curriculum

ASC Annual Meeting, Nov. 1998, Boston, MA
Program Faculty Seminar

Department of Dietetics & Nutrition

1080 Delp

588-5355

Peter Beyer, MS, Associate Professor

Research Interests

Diet in Gastrointestinal Disorders, Digestion, Utilization of Foodstuffs, Enteral Nutrition, Parenteral Nutrition, Nutrition and Health

Publications

Beyer, P.L., (2000) Chapter 1 Digestion and Absorption, Chapter 30, Nutrition in Upper GI Disorders, Chapter 31, Nutrition in Lower GI Disorders. In: Krause's Food, Nutrition and Diet Therapy, (10th ed.), Mahon, LK & Escott-Stump, S. (Eds), WB Saunders Co.

Presentations

Standards of Professional Practice, House of Delegates, American Dietetic Association (1999).

“Train the Trainers” workshop on Developing Practice Plans Using the American Dietetic Association Standards of Professional Practice, House of Delegates, American Dietetic Association, Atlanta, GA (1999).

“Let Food be Your Medicine” to the KUMC Interdisciplinary Integrative Medicine group (1999).

American Dietetic Association “Think Tank” participant Purpose was to develop a model of core measures of elements of nutrition care (1999).

Presentation/Workshop Standards of Professional Practice, ADA Dietetics Educators Practice Group, Region 7, Milwaukee, April (2000).

Nutrition and Cancer – an Update. Bixby Institute and The Cancer Institute, Health Midwest, Kansas City, June (2000).

Susan Carlson, Ph.D., Midland Dairy Council Professor

Research Interests

Nutrition in Pregnancy and Infant Development

Laboratory

5019 WHE and G09-13 Smith Building

Publications

Carlson SE and Neuringer M: Polyunsaturated fatty acid status and neurodevelopment: A summary and critical analysis of the literature. *Lipids* 34:171-178, 1999.

Carlson SE: Long chain polyunsaturated fatty acids and development of human infants. *Acta. Paed. Scand.* 88:72-77, 1999.

Carlson SE: Behavioral methods used in the study of long-chain polyunsaturated fatty acid nutrition in primate infants. *Am. J. Clin. Nutr.* 71 (suppl.): 268S-274S, 2000.

Presentations

Borod E, Atkinson R, Barclay WR, Carlson SE. Effects of third trimester consumption of eggs high in DHA on DHA status and pregnancy. *Lipids* 34:S231, 1999. Presented ISSFAL 1998, Lyon, France.

Carlson SE, Werkman SH, Montalto MB, Tolley EA. Visual acuity development of preterm (PT) infants fed docosahexaenoic acid (DHA) and arachidonic acid (ARA): Effect of age at supplementation. *Pediatric Research* 45:279A, 1999. Poster presentation at Society for Pediatric Research, May 1999, San Francisco.

Carlson SE, Mehra S, Kagey WJ, Merkel KL, Diersen-Schade DA, Harris CL, Hansen JW. Growth and development of term infants fed formulas with docosahexaenoic acid (DHA) from algal oil or fish oil and arachidonic acid from fungal oil. *Pediatric Research* 45:278A, 1999. Poster presentation at Society for Pediatric Research, May 1999, San Francisco.

Dietary Lipids and Infant Development: Consensus and Controversy, Noon Research Seminar, Children’s Mercy Hospital, Kansas City, Missouri, February 5, 1999

Nutrition for Patients with HIV, Trinity Lutheran Hospital Foundation Grant, Kansas City, Missouri, March, 24, 1999; June 16, 1999; October 13, 1999

Infant Development in Relation to LCPUFA Status, Pediatric Nutrition Symposium, Ancona, Italy, May 20-22, 1999

Consensus Meeting on Long Chain Polyunsaturated Fatty Acids and Perinatal Development, Child Health Foundation, Munich, Germany, July 18-21, 1999

LCPUFA Supplementation of Preterm Infants: Neural Influences in Three Trials, 23rd World Congress and Exhibiton of the International Society for Fat Research, Brighton, England, October 3-7, 1999

Polyunsaturated Fatty Acids and Infant Development, Long Term Effects of Fetal and Early Childhood Events on Later Development and Disease Risk, Milupa Scientific Symposium, Bremen, Germany, October 15-17, 1999

Very low birth weight preterm infants fed DHA-supplemented formula: Results of three trials using three DHA sources, International Society for the Study of Fatty Acids and Lipids, Tsukuba, Japan, June 2000.

Research Support

Last Trimester DHA Supplementation: Effect on Pregnancy Outcome, Funded by OmegaTech, Inc., June 1, 1998 – May 31, 2001, \$203,780

Postdoctoral Fellows

Marius Smuts, Ph.D., Biochemistry, University of Stellenbosch 1996 (Major Professor: KJ Kirsten) (1998-1999)

Minzhao Huang, Ph.D., Pharmaceutical Science, Nagoya City University (Major Professor: Harumi Okuyama, Ph.D.) 1998 - 2001

Janice Harris, Ph.D., Associate Professor

Research Interests

Development and evaluation of computer assisted nutrition education for patients/clients with hypertension.

Publications

Forrey, AS & Harris, JE (1999). Effect of aerobic exercise on apoetin alpha dosages and hematocrit values of hemodialysis patients. Journal of the American Dietetic Association. 99(Supplement): A-118. (Abstract)

Presentations

Poster for KUMC Faculty Research Day “Effect of aerobic exercise on apoetin alpha dosages and hematocrit values of hemodialysis patients”. (1999)

Nutrition Forum at University of Kansas Medical Center, “Dietary Supplements: Law and Disorder” with Jamie Zegers, graduate student. (2000)

Cass Ryan, Ph.D., Associate Professor

Research Interests

Nutrition in aging and in renal disease

Publications

Ryan, C., (1999) Alexander, E., & Pope, J. Survey of Nutrition Services Provided in Long-Term Care Facilities in Northern Louisiana. *Journal of Nutrition for the Elderly*. 18 (3): 45-54.

Blondin, J & Ryan, C. (1999) Nutritional Status: A Continuous Quality Improvement Approach. *American Journal of Kidney Disease*. 33(1): 198-202.

Lindsay, J, Hunt, A, Ryan, C., & Tolman, N . Fat content labels influence acceptability ratings. *Journal of Family and Consumer Sciences*. 92(4). In Press

Corbett, R., Ryan, C., Wienrich, S. Relationship of pica practice to infant birthweight. *Journal of the American College of Nutrition* (submitted).

Gardner, H, Ryan, C, Hunt, A., & Hackes, B. Comparison of three methods of assessing body composition in hemodialysis patients. *Journal of the American Dietetic Association* (submitted).

Grants submitted

Cost effectiveness of nutrition services for the elderly. American Dietetic Association. Not funded.

Research Support

Kansas Geriatric Education Center. Funded by NIA 1999-2002. P.I. is Linda Redford, RN, PhD, Center on Aging. To increase the number of health professional faculty committed to teaching age-related content and the number of health professionals with the knowledge and skills to care for the vulnerable elderly.

Debra Sullivan, Ph.D., Associate Professor

Research Interests

How dietary intake effects the prevention and management of chronic disease. Recent research includes the prevention and treatment of obesity by diet and exercise.

Publications

Hise M, Sullivan DK, Jacobson DJ, Mayo M, Donnelly JE: Validation of energy intakes by doubly labeled water in overweight individuals. (submitted).

Sullivan DK, Legowski PA, Jacobsen DJ, Snyder Heelan K, Johnson SL, Donnelly DE: A low fat afterschool snack improves the nutritional quality of elementary school children's diet. *J Am Diet Assoc* (accepted)

Abstracts:

Sand M, Manring K, Sullivan, DK: Risk factors occurring in adolescents which lead to the development of osteoporosis. (submitted JADA)

Treft D, Manring K, Sullivan, DK: Fruit, vegetable and fiber intakes of high school students in Kansas. (submitted JADA)

Sullivan DK, Legowski P, Hise M, Jacobson DJ, Donnelly JE: Fat, fiber and simple sugar consumption in moderately overweight college students. FASEB J 14:A518.3, 2000.

Hise M, Sullivan DK, Jacobson DJ, Donnelly JE: Validation of verified weighed food records using doubly labeled water in overweight individuals. FASEB J 14:A525.12, 2000.

Sullivan DK, Sullivan DK, Hise M, Ferris JJ, Jacobson DJ, Donnelly JE: Dietary intake changes in responders and non-responders to a long term exercise regimen. Obesity Res 7:123S, 1999.

Ferris JJ, Sullivan DK, Hise M, Jacobsen DJ, Donnelly DE: Snacking is beneficial to fitness and weight loss. Obesity Research 7:86S, 1999.

Hise M, Sullivan DK, Ferris JJ, Jacobsen DJ, Donnelly DE: Long term exercise effects on lipid profiles in upper or lower body obesity. Obesity Research 7:123S, 1999.

Niehues J, Sullivan DK: Nutrient intakes of adults with phenylketonuria. J Am Diet Assoc 99:A92, 1999.

Presentations

Nutrient Intakes of Adults with Phenylketonuria. Midwest Metabolic Network Meeting. OakBrook, IL, June 12, 1999.

Funded Grants

Long-term efficacy and safety of Meridia (sibutramine hydrochloride). Co-Investigator (P.I. Joseph Donnelly). Knoll Pharmaceutical Company SB118. 8/04/99-12/30/04. No direct compensation to KUMC.

African American Smokers in Low Income Housing. Co-investigator. (P.I. Jasjit Ahluwalia). National Cancer Institute. 2000-2003.

Prevention of weight gain by altering dietary fat. P.I. of subcontract to KU-Lawrence (P.I. Joseph Donnelly). NIH. Subcontract directs \$195,309. Total KU-Lawrence directs \$2,158,002. 01/01/01-12/31/05.

Pending Grants

Internet Counseling for Weight Loss. P.I. Debra K. Sullivan, Kansas Health Foundation. \$24,953. pending

A culturally sensitive intervention to increase calcium intake among multiethnic inner city school children. P.I. Debra K. Sullivan, Co-I Cheryl Gibson, PhD, National Dairy Council. \$247,233. Jan 01 – Dec 03.

**Health Information Management
G124 KU Hospital
588-2423**

Presentations

Sheila Hammonds, MBA, RHIA

Issues related to Inpatient and Outpatient billing and coding, 2000 I H S Information Technology and Program Support Conference in Albuquerque, NM.

**Hearing and Speech Department
3rd Floor, H.C. Miller Building
588-5937**

Mary A. Carpenter, Ph.D., Associate Professor

Research Interests

Principal research activities address diagnosis/description of velopharyngeal function. Studies cross ages and etiologies.

Laboratory

Room 3041, 3rd Floor, H.C. Miller Building

Publications

Searl, J. and Carpenter, MA (1999). Speech sample effects on pressure and flow measures in children with normal or abnormal velopharyngeal function. Cleft Palate/Craniofac. Journal, Vol. 36, No. 6, 508-514.

Searl, J. and Carpenter, MA (submitted). Velopharyngeal symptoms of nonorganic origin: A case study. Phonoscope.

Presentations

Nu-Voice Club: If you could have trained your speech therapist (11/6/99).

UMKC Dental School: Speech problems related to cleft lip/palate (11/11/99).

GKC Hearing & Speech Assoc.: Everyday ethical quandries (4/13/00).

Parkinson Support Group: Strategies for speech and swallow problems in Parkinson Disease (with J. Bak)(4/28/00).

Funding

Solicited and was awarded a \$1000 student stipend from the GKC Parkinson Foundation (supporting J.Bak)

Mark E. Chertoff, Ph.D., Associate Professor

Research Interests

Development of clinical indices that describe physical changes in the inner ear as a result of hearing loss. Application of engineering principles to quantify the mechano-electric and electro-mechanic transduction processes in the inner ear.

Laboratory

Auditory Processing Laboratory, Room 2112, MRRC

Publications

Bian L, and Chertoff, M.E. Distinguishing cochlear pathophysiology in 4-aminopyridine and furosemide treated ears using a nonlinear systems identification technique (JASA - being revised).

Lerner, D., Chertoff, M.E., and Amani-Taleshi, D. Mathematical decomposition of the round window potential (Hearing Research -in press).

Chertoff, M.E., Lerner, D., and Amani-Taleshi, D. Characterizing nonlinearity in the cochlear microphonic using the instantaneous frequency (Hearing Research -in press).

Presentations

Ator, G., Yi, Xing, and Chertoff, M.E. Mechano-electric transduction in guinea pigs with noise induced hearing loss. Presented at the 23rd meeting of the Association for Research in Otolaryngology, St. Petersburg Beach, FL, 2000.

Chertoff, M.E. Characterizing cochlear transduction using distortion product emissions. Presented at the 23rd meeting of the Association for Research in Otolaryngology, St. Petersburg Beach, FL, 2000.

Bian, L and Chertoff, M.E. Examining the specificity of cochlear transduction indices by blocking potassium currents with 4-aminopyridine and furosemide. Presented at the 23rd meeting of the Association for research in Otolaryngology, St. Petersburg Beach, FL, 2000.

Grants

“The Middle Ear: Its Influence on Mechano-Electric Transduction in the Inner Ear. Whitaker Foundation Grant (not funded).

“Physiologic Measures of Mechanoelectric Transduction in Regenerated Cochlear Sensory Hair Cells.” KU Medical Center Research Institute, PI. Douglas Girod. Collaborators: Dianne Durham, Mark Chertoff. \$35,000.

“Clinical Measures of Auditory Linear/Non-Linear Transduction Processes.” 2000 – 2005, Natl. Inst. of Deafness and Other Communication Diseases, NIH. Total budget \$1,330,000.

John A. Ferraro, Ph.D., Doughty-Kemp Chair and Professor

Research Interests

Clinical applications of auditory evoked potentials, with special emphasis on electrocochleography and the auditory brainstem response in the diagnosis, assessment and monitoring of oto-neurologic disorders.

Laboratory

Auditory Evoked Potential Laboratory/Clinic, Room 3025, H.C. Miller Building

Publications

Ferraro, J.A. (2000). Electrocochleography. In: Roesser, R., Hosfort-Dunn, H., and Valente, M. (Eds.), *Audiology: Diagnosis, Treatment Strategies and Practice Management*. New York: Thieme, 425-450.

Durrant, J.D. and Ferraro, J.A. (2000). Short-latency auditory evoked potentials. In: Musiek, F. (Ed.), *Clinical Audiology*. Williams & Wilkins (in press).

Ferraro, J.A. and Durrant, J.D. (2000). Electrocochleography. In: Katz, J. (Ed.), *Handbook of Clinical Audiology* (5th Edition). Baltimore: Williams and Wilkins (in press).

Bankson, N., Ferraro, J.A., & Talbott, R. (1999). Dealing with Budgets: Information for the New Chair. *Proceedings of the Annual Conference on Graduate Education: New Horizons*. Council of Academic Programs in Communication Sciences and Disorders, 121-139.

Park, D.L., and Ferraro, J.A. (1999). Intrasubject test-retest reliability in tympanic electrocochleography. *Journal of the American Academy of Audiology*, 10, 160-165.

Ferraro, J.A., and Tibbils, R.P. (1999). SP/AP area ratio in the diagnosis of Meniere's disease. *American Journal of Audiology*, 8, 21-28.

Talbott, R., Bess, F., Ferraro, J., and Jacobson, G. (2000). A unification model for audiology: It's time to end the divisiveness. *The Hearing Journal*, 53, 35-36.

Presentations

Transitioning to New Standards for Clinical Practice: Perspectives from Academe. Miniseminar, Annual Convention of the ASHA, San Francisco, CA, November, 1999 (with E. McNiece, A. Carney, and M. Flahive).

Audiology: Superstar or Supernova. Annual Convention of the ASHA, San Francisco, CA, November, 1999 (with R. Talbott and F. Bess).

Dealing with Budgets: Information for the New Chair. Annual Conference of the

Council of Academic Programs in Communication Sciences and Disorders, Jacksonville, FL, April, 1999 (with N. Bankson and R. Talbott).

Audiology Grand Rounds. Annual Convention of the Kansas Speech-Language-Hearing Assoc., Overland Park, KS, October, 1999.

Update from the Council of Academic Accreditation in Audiology and Speech-Language Pathology. Annual Convention of the ASHA, San Francisco, CA, November, 1999 (with J. Lubinsky and N. Bankson).

Audiology Association Governance in the New Millennium. Roundtable Presentation, Annual Convention of the American Academy of Audiology, Chicago, IL, March, 2000 (with R. Talbott, G. Jacobson, and F. Bess).

Funding

Annual Request to W.C. Hartley Family for the Hartley Family Center for Deaf and Hard of Hearing Children. \$40,000 (funded)

Request for new clinical/research equipment for newborn hearing assessment and intervention. Louis and Dolpha Baehr Charitable Trust of Paola, Kansas (with J. Widen and S. Trouba). \$54,000 (funded, August, 2000)

Lenexa Sertoma Club Scholarship Program. \$6,000.

Marc E. Fey, Ph.D., Professor

Research Interests

Studies dealing with the effects of sentence prosody and adult input and on typical and language impaired children's development of grammar and phonology; the relationship of early impairments or oral language and phonological awareness to later problems in reading, writing, and spelling.

Laboratory

Language Learning Laboratory, Room 1015, MRRC.

Publications

Fey, M. E., Krulik, T., Loeb, D. F., & Proctor-Williams, K. (1999). Sentence recast use by parents of children with typical language and children with specific language impairment. *American Journal of Speech-Language Pathology*, 8, 273-286.

Fey, M. E. (1999). PACT: Some comments and considerations. *International Journal of Language and Communication Disorders*, 34, 55- 59.

Fey, M. E., & Proctor-Williams, K. Elicited imitation, modeling, and recasting in grammar intervention for children with specific language impairments. To appear in D. V. M. Bishop & L. B. Leonard (Eds.), *Speech and language impairments: From theory to practice*. London: Psychology Press (in press).

Catts, H. W., Fey, M.E., Proctor-Williams, K. The relationship between language and reading: Preliminary results from a longitudinal investigation. *Logopedics, Phoniatrics, Vocology* (in press).

Catts, H. W., Fey, M. E., Zhang, X., & Tomblin, J. B. Predicting reading disabilities: Research to practice. *Language, Speech, and Hearing Services in Schools* (under review).

Proctor-Williams, K., Fey, M. E., & Loeb, D. F. Parental recasts and production of copulas and articles by children with specific language impairment and typical language. *American Journal of Speech-Language Pathology* (under review).

Johnson, B., & Fey, M. E. The influence of telicity on children's production of verb morphology (under review).

Presentations

Fey, M. E. (2000, April 28). Literacy-based approaches to early speech and language assessment and intervention. Invited workshop presented at the Annual Meeting of the Arizona Speech-Language-Hearing Association.

Fey, M. E. (2000, Feb 13). The speech-language pathologist and early reading disorders. Invited address presented at the Annual Meeting of the Southwest Branch of the International Dyslexia Association.

Long, S. H., & Fey, M. E. (1999). Technology applications in the analysis of children's language, with Steven H. Long. *ASHA Annual Convention Program*, 72

Loeb, D. F., Fey, M. E., Barger, E., Ernst, N., Dykstra, J., & McClelland, K. (1999). Parental recasts of pronoun errors. *ASHA Annual Convention Program*, 102.

Catts, H. W., Fey, M. E., Tomblin, J. B., & Zhang, X. (1999). Reading outcomes of children with language impairments. *ASHA Annual Convention Program*, 128.

Sokol, S., & Fey, M. E. (1999). Metrical stress and the accuracy of emerging speech sounds. *ASHA Annual Convention Program*, 162.

Robey, R. R., Fey, M. E., Thompson, C. K., et al. (1999). Clinical outcomes research in SLP: Models for design and state of the science. *ASHA Annual Convention Program*, 236.

Fey, M. E. (1999, Oct. 1). The speech-language pathologist and early reading disorders. Invited address presented at the Kansas Speech and Hearing Association Convention. Overland Park, KS.

Fey, M. E., Krulik, T. E., Loeb, D. F., & Proctor-Williams, K. (1999, June 3). Sentence recast use by parents of children with typical language and specific language impairment. Poster presented at the 20th Symposium on Research in Child Language Disorders. Madison, WI.

Proctor-Williams, K., Fey, M. E., Loeb, D. F., & Krulik, T. E. (1999, June 4). The relationship between parental recasts and morphosyntactic use by children with specific

language impairment and children with typical language. Poster presented at the 20th Symposium on Research in Child Language Disorders. Madison, WI.

Grant

Warren, S. H., & Fey, M. E. (2000). Is pre-linguistic communication intervention necessary? Office of Special Education Programs: United States Department of Education. 2000 – 2004. \$488,000.

P. Lynn Hayes, Ed.D., Associate Professor

Research Interests

Developing literacy skills in children who are deaf or hard of hearing; the effect of early intervention on children who are deaf or hard of hearing; practices with children who are deaf-blind in the state of Kansas.

Laboratory

Hartley Family Center, 2nd Floor, CDU Building

Presentations

“When Baby Has a Hearing Loss.” Kansas Division of Early Childhood Convention. Wichita, KS. 3/3/00 (I).

“Visual Story reading in American Sign Language.” Colorado Symposium on Deafness, language, and Learning. Colorado Springs, CO. 11/12/99

Grants

Hayes, P. L. (1999). Project L.E.A.D. (Leadership Grant). Office of Special Education Programs. U.S. Department of Education. 1999 – 2002. \$742,413.

Hayes, P. L., & Roberts, S. (1998). Training of personnel for low incidence handicaps (Great Plains Deaf Education/Deaf-Blind Project). Department of Education. Personnel Preparation. 84.029A. 1998 – 2001. \$732,136.

Susan Jackson, Ph.D., Associate Professor

Research Interests

Treatment studies with adults who have communication disorders as a result of neurological impairment. Recent and current studies involve persons with aphasia and persons with dementia. Group and single-subject experimental designs are used to investigate the effectiveness of sentence completion cues on word retrieval in persons with aphasia, the effectiveness of memory booklets and family training on the communication of people with dementia, and the effectiveness of spaced retrieval on the memory ability of persons with dementia.

Laboratory

Adult Neuro-Language Laboratory, Rooms 3010 and 3012, 3rd Floor, H.C. Miller Building

Publications

Riddle, K., & Jackson, S.T. (in preparation). Use of the Wada test to lateralize language in a deaf man with epilepsy.

O'Hanlon, L., & Jackson, S.T. (submitted summer 1999). The neuropsychological revolution of aphasiology: A primer in aphasia evaluation and treatment planning.

Teel, C., Dunn, W., Jackson, S.T., & Duncan, P. (in preparation). Field testing of the Environment-Independence Interaction Scale.

Presentations

Jackson, S.T. (1999, May). Current knowledge in dementia management. Paper presented at the KUMC Hearing and Speech department's 50th Anniversary Symposium, Kansas City, KS.

Jackson, S.T., & Schmalz, R.A. (1999, June). Facilitating conversation in Alzheimer's disease through the use of memory aid booklets. Poster presented at the Clinical Aphasiology Conference, Key West, FL.

Riddle, K., & Jackson, S.T. (1999, September). Use of the Wada test to lateralize language in a deaf man with epilepsy. Poster presented at the annual convention of the Kansas Speech-Language-Hearing Association, Overland Park, Kansas.

Riddle, K., & Jackson, S.T. (1999, November). Lateralization of ASL: What the Wada test revealed. Poster presented at the annual convention of the American Speech-Language-Hearing Association, San Francisco, CA.

Jackson, S.T. (2000, March). Reading research critically: Dysphagia literature. Presentation to the Kansas City Dysphagia Study Group, Overland Park, Kansas.

Jackson, S.T. (2000, April). Enhancing communication in dementia. Presentation at the Center on Aging colloquium series, KU Medical Center, Kansas City, KS.

Jackson, S.T. (2000, May). Speech and language changes after a stroke. Presentation at the annual American Heart Association, Stroke Survivor/Caregiver Conference, KU Medical Center, Kansas City, KS.

Grant Participation

Dr. Jackson participates in the NIA Older Americans Independence Centers (Pepper) grant (S. Studenski, PI), a KUMC Research Institute Grant (C. Teel, P.I.) entitled "Testing a Home Environmental Assessment Scale," and a Communication and Aging training grant on the Lawrence campus (Susan Kemper, PI).

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

Research Interests

Pediatric audiology, especially behavioral assessment of infants and toddlers using Visual Reinforcement Audiometry. Clinical application of otoacoustic emissions (OAEs) for screening for hearing loss in newborns, infants and toddlers, estimating the audiogram when

behavioral responses are limited, changes in emissions with age; use of OAEs for ototoxic monitoring.

Laboratory

Otoacoustic Emissions Laboratory, Room G011, CDU Building

Publications

In Press:

Widen JE and O'Grady G. Otoacoustic Emissions in Evaluating Children. In Robinette MS and Glatcke TJ (Eds). Otoacoustic Emissions: Clinical Applications (2nd ed). New York: Thieme.

The following articles have been accepted for Ear & Hearing, pending revision, to be published in fall:

Widen JE, Folsom RC, Cone-Wesson B, Carty L, Dunnell JJ, Koebshell K, Levi A, Mancl L, Ohlrich B, Trouba S, Gorga MP, Sininger YS, Vohr BA, & Norton SJ. Identification of Neonatal Hearing Impairment: Determination of Hearing Status at 8-12 Months Corrected Age Using A Visual Reinforcement Audiometry Protocol.

Folsom RC, Widen JE, Vohr BR, Cone-Wesson B, Gorga MP, Sininger YS, & Norton SJ. Identification of Neonatal Hearing Impairment: Recruitment and Follow-Up.

Norton SJ, Gorga MP, Widen JE, Folsom RC, Sininger YS, Cone-Wesson B, Vohr BR, & Fletcher K. Identification of Neonatal Hearing Impairment: A Multi-center Investigation

Vohr BR, Cone-Wesson B, Widen JE, Sininger YS, Gorga MP, Folsom RC, & Norton SJ. Identification of Neonatal Hearing Impairment: Characteristics of Infants in the Neonatal Intensive Care Unit (NICU) and Well Baby Nursery.

Norton SJ, Gorga MP, Widen JE, Vohr BR, Folsom RC, Sininger YS, Cone-Wesson B, Fletcher K. . Identification of Neonatal Hearing Impairment: Transient Evoked Otoacoustic Emissions during the Perinatal Period.

Norton SJ, Gorga MP, Widen JE, Folsom RC, Sininger YS, Cone-Wesson B, Vohr BR, Mascher K, & Fletcher K. Identification of Neonatal Hearing Impairment: Evaluation of TEOAE, DPOAE, and ABR Test Performance.

Cone-Wesson B, Vohr BR, Sininger YS, Widen JE, Folsom RC, Gorga MP & Norton SJ. Identification of Neonatal Hearing Impairment: Infants with Hearing Loss.

Sininger YS, Cone-Wesson B, Folsom RC, Gorga MP, Vohr BR, Widen JE, Ekelid M, & Norton SJ. Identification of Neonatal Hearing Impairment: Auditory Brainstem Response in the Perinatal Period.

Gorga MP, Norton SJ, Sininger YS, Cone-Wesson B, Folsom RC, Vohr BR, & Widen JE. Identification of Neonatal Hearing Impairment: Distortion Product Otoacoustic Emissions during the Perinatal Period.

Presentations

Kennalley T, Schwartz J, and Widen, J. (Sept 1999). Universal Newborn Hearing Screening in Kansas. Presentation to Kansas Speech-Language-Hearing Association Convention, Overland Park.

Other faculty members from the Hearing and Speech Department who have participated in research and scholarly activities with senior faculty during 1999 – 2000 include: **Sara Dale Brandt, Ph.D., Laura Davis, M.A., Jill Georges, M.A., Kathy Johnston, M.A., Sandra Keener, M.A., and Susan Trouba, M.A.**

Department of Nurse Anesthesia
2026 Delp
588-6612

Carol Elliott, CRNA, MPA – Professor and Chair

Research Interests

- A comparison of Remifentanyl/Midazolam with Remifentanyl/Propofol for monitored anesthesia care during extracorporeal shock wave lithotripsy
- Effect of Ephedrine on the onset time of neuromuscular blockade and the hemodynamic consequences.
- Thiopental and Propofol as a combined induction agent: a study of cost effectiveness and anesthetic safety
- Noise levels in the operating room during the anesthesia pre-induction period
- Comparison of intraoperative forced air and intravenous fluid warming in the prevention of hypothermia
- The effectiveness of bispectral monitoring in predicting recovery time following conscious sedation
- Anesthesia outcomes in the State of Kansas: 1995 – 2000
- Anesthesia outcomes in the State of California: 1995 – 2000
- The pH of gastric secretions in the esophagus upon induction and the potential reflux of gastric contents and how premedications will affect this reflex

Presentations

- Round table discussion Leader at Annual Nurse Anesthesia Faculty Assembly (Phoenix, AZ) Topic “ Distance Education and Nurse Anesthesiology”
- “Grief and loss of an adult child”, KUMC School of Nursing Seminar on Grief
- Advanced Airway Management, Whiteman Air Force Base, Whiteman Hospital
- Battlefield Trauma and Nurse Anesthesia, Whiteman Air Force Base, Whiteman Hospital

Hugh Mathewson, MD

Research Interests

- Comparison of esophageal and tympanic membrane temperatures measured intraoperatively and postoperatively
- Comparison of Remifentanyl balanced anesthesia versus Isoflurane general anesthesia for outpatient urologic procedures
- Sensory level determination after administration of spinal anesthesia

Christita Weber, CRNA, MS

Research Interests

- Effect of Remifentanyl and three different Methohexital doses on heart rate, blood pressure and seizure during electroconvulsive therapy
- Remifentanyl based patient-controlled analgesia in the setting of outpatient plastic surgery
- Graduate Record Examination scores as a predictor of performance by graduate registered nurse anesthetists on the National Certification Examination
- Comparison of varying doses of oral Midazolam in pediatric patients and its effect on preoperative separation anxiety and anxiety at induction
- A comparison between 5-HT₃ blockers Ondansetron and Dolasetron and the incidence of post operative nausea and vomiting
- A comparative study: incidence of postoperative sore throat and oropharyngeal airway

Mike Gordon, PhD

Research interests

- Application of MR/CT imaging to contemporary problems in clinical medicine, including Parkinson's disease and Polycystic Kidney Disease.
- Basic and Applied Pharmacology of drugs used in anesthesia.
- Technologies used in development and dissemination of distance learning, on-line teaching materials

2) Recent publications:

Tsao, K., Wilkinson, S., Overman, J., Koller, W., Pahwa, R., Troster, A., Lyons, K., Batnitzky, S., Wetzel, L and Gordon, M.A. Pallidotomy Lesion Locations: Significance of Microelectrode Refinement. Stereotactic and Functional Neurosurgery 71 1 1-19 (1998) (Released March 1999)

Tollefson, T., Wilkinson, S., Overman, J, Goodman, S.,Koller, W., Troster, A, Lyons, K., Pahwa, R., Batnitzky, S., Wetzel, L, and Gordon, M. Comparative Magnetic Resonance Image-Based Evaluation of Thalamotomy and Pallidotomy Lesion Volumes, Stereotactic and Functional Neurosurgery 71:131-144 (1998) released 1999

Goodman, Scott, Wilkinson, S., Overman, J, Koller, W, Pahwa, R, Lyons, K, and Gordon, M. Lesion Volume and Clinical Outcome in Stereotactic Pallidotomy and Thalamotomy, Stereotactic and Functional Neurosurgery 71:164-172 (1998), released 1999

Kirschman, D., Milligan, B., Wilkinson, S., Overman, J., Wetzel, L., Batnitzky, S., Lyons, K., Pahwa, R., Koller, W., and Gordon, M. Pallidotomy Microelectrode Targeting: Neurophysiology-Based Target Refinement" Neurosurgery 46: (3) 613-624, 2000

Thomas Joslyn, CRNA, MS

Research Interests

- Thermoregulation under general anesthesia: the effect of preoperative warming

William Carlile, MD

Research Interests

- Comparison of nasal cannula versus face mask for arterial oxygen saturation in the post-anesthesia recovery room
- Intravenous Lidocaine versus laryngeal tracheal Lidocaine: a comparison of the attenuation of the hypertensive response to laryngoscopy and intubation in hypertensive patients
- Comparison of Sufenta versus Duramorph for intrathecal narcotics during labor

James Cuddeford, CRNA,MA

Research Interests

- Laryngeal mask airway usage in the state of Nebraska
- Effect of guided imagery on pain and anxiety related to the orthopedic patient
- Effects of a 1:1 mixture of Propofol and Thiopental on phase II recovery in the ambulatory surgical setting
- Factors affecting applicant's choice of nurse anesthesia program
- Bacterial growth of Propofol and Thiopental mixture
- Survey of current nurse anesthesia students' satisfaction with their anesthesia program
- Survey of the amount of student loans acquired to attain a master's degree in nurse anesthesia
- Nurse Anesthesia manpower in Nebraska
- Comparison of IV fluid temperature in the warmer, at room temperature in the tubing, and at point of entry into the patient

Selected Student and Faculty Publications

Bailey, Jeffrey (student); C. Elliott; C. Williams; H Mathewson (faculty)

“Effect of Ephedrine on the Onset Time of Neuromuscular Blockade and the Hemodynamic Consequences” (publication/poster session AANA NATIONAL MEETING/JOURNAL, 1999).

Henerson, Todd R. (student); T. Joslyn; V. Johnson; C. Elliott (faculty)
“Thermoregulation Under General Anesthesia: The Effect of Preoperative Warming” (publication/poster session AANA NATIONAL MEETING /JOURNAL, 1999)

Long, Paul A. (student); C. Elliott; C Weber; H. Mathewson (faculty)
“Effect of Ephedrine on the Onset Time of Neuromuscular Blockade and the Hemodynamic Consequences” (publication/poster session AANA NATIONAL MEETING/JOURNAL, 1999)

**Department of Occupational Therapy Education
3033 Robinson
588-7195**

Tana Brown, Ph.D., Associate Professor

Research Interests

Skills training for individuals with severe mental illness; establishment of norms and conducting additional construct validity studies on the Adult Sensory Profile; difference in sensory processing preferences for different disability groups.

Publications

Brown, C., Tollefson, N, Dunn, W., Cromwell, R. & Fillion, D. (in press). The Adult Sensory Profile: Measuring patterns of sensory processing. American Journal of Occupational Therapy.

Brown, C. (2000). Clinical interpretation of “A comparison of the Allen Cognitive Level Test and the Wisconsin Card Sorting Test in adults with schizophrenia”. American Journal of Occupational Therapy, 54, 134-136.

Redick, A.G., McClain, L. & Brown, C. (2000). Consumer empowerment through occupational therapy: The American With Disabilities Act Title III. American Journal of Occupational Therapy, 54, 207-213.

Hamera, E. & Brown C. (2000). Developing context-based performance measures: Grocery shopping skills in individuals with schizophrenia. American Journal of Occupational Therapy, 54, 20-25.

Presentations

Brown, C. Wellness and response to sensation. June 2000, Recovery Conference.

Brown, C. Functional and practical assessment for occupational therapy. May, 2000, Keynote – Connecticut Occupational Therapy Association Annual Conference.

Brown, C., Hamera, E. & Rempfer, M. Teaching individuals with schizophrenia to shop: The role of cognition. April, 2000, American Occupational Therapy Association Annual Conference.

Brown, C. & Wendt, S. The Adult Sensory Profile: Applications for individuals with mental illness. April, 2000, American Occupational Therapy Association Annual Conference.

Brown, C. Describing sensory processing in schizophrenia with the Adult Sensory Profile, October, 1999, Society for Research in Psychopathology, Annual Conference.

Baum, C., Youngstrom, M.J., Duncombe, L., Slater, D. & Brown, C. At the core of our profession: Occupation-Based practice. November, 1999, American Occupational Therapy Association Practice Conference.

Grants

Independent Living for People with Psychiatric Disabilities: Using Contextual Cues to Remove Environmental Barriers, National Institute of Disability Research and Rehabilitation, Funded, PI, collaboration between OT Education and School of Nursing, \$433,543.

Promoting Recovery Using and Adult Education Wellness Program, Robert Wood Johnson Foundation, Letter of Intent Submitted, PI, collaboration between OT Education, Wyandotte Community Support Program and UMKC School of Dentistry.

Cheryl Deterding, M.A., Assistant Professor

Research Interests

Quality indicators in assistive technology

Presentations

Closing the Gap conference (national, interdisciplinary conference) – Quality Indicators in Assistive Technology (co-presenter – 2 hr session, October, 1999).

AOTA Practice Conference (national conference) – The Internet & its benefit to Occupational Therapy practitioners (3 hr. workshop), November, 1999.

Other research activities and collaborations

Quality Indicators in Assistive Technology (QIAT) Consortium leadership team. This is interdisciplinary group concerned with assistive technology services in school settings. We submitted an article “Quality Indicators for Assistive Technology Services”, edited by Joy Zabala (University of Kentucky) and Gayl Bower (Oregon Technology Access Project), to the Journal of Special Education Technology.

Winnie Dunn, Ph.D., Professor and Chair

Research Interests

We conduct research about how persons process sensory information for use in their daily lives. The studies include the life span (i.e. infants, toddlers, children, adolescents, adults and elders), and persons with and without disabilities (which have included autism, ADHD, schizophrenia, tic disorders, Asperger syndrome).

Publications

Dunn, W. (1999). The Sensory Profile manual. San Antonio: The Psychological Corporation.

Dunn, W. (2000). Occupational Therapy. In B. Ogletree, (Eds.), Bridging the Parent-Professional Gap: Facilitating Interdisciplinary Services for Children With Disabilities. Springfield, Illinois: Charles Thomas Publishing.

Law, M., Baum, C. & Dunn, W. (2000). Measuring Occupational Performance: a guide to best practice. Thorofare, NJ: Slack, Inc.

Dunn, W. (2000). Best Practice Occupational Therapy for Early Intervention and School Based Services. Thorofare, NJ: Slack, Inc.

Myles, B., Dunn, W. & Orr, S. (submitted). The sensory processing features of children who have Asperger Syndrome.

Dunn, W. & Bennett, D. (submitted). Performance of children with ADHD on the Sensory Profile.

Huebner, R. & Dunn, W. (2000). Introduction and Basic Concepts (Chapter One) in: Huebner, R. Sensorimotor Approaches to Autism. Aspen, CO: Aspen Press.

Dunn, W. (in press). Habits: What’s the brain got to do with it? American Journal of Occupational Therapy.

Dunn, W. (1999). Making sense of the world. Advance for Directors in Rehabilitation, 2, 47-48.

Presentations

Understanding the NBCOT Test Blueprint and Realigning Curricula, AOTA SIS, Seattle, WA, July 1999.

Sensory Processing in Daily Life, Kansas City, MO, July 1999.

The Sensory Profile: A Measure for Characterizing the Sensory Experiences of Daily Life for Children with Autism, National Autism Conference, University Park, PA, August 1999.

Sensory Processing in Daily Life. Louisville, KY, September 1999.

Standard Setting: Where is that road and how do we take it? NBCOT Annual State Regulatory Workshop Phoenix, AZ, September 1999

Sensory Processing in Daily Life, New York State Occupational Therapy Conference Buffalo, NY, October 1999

www.sensation@life.ot: Reflections and Projections. Keynote Address, NY State OT Conference, Buffalo, NY, October 1999.

Linking the NBCOT Certification Examination Blueprint to Curriculum Design, Virginia Commonwealth University, Richmond, Virginia, October 1999.

Sensory Processing in Daily Life for Children with Pervasive Developmental Disorders, Seventh Annual CARD Conference, Tampa, Florida , January 2000.

Sensory Processing for Public School Practice Colorado Department of Education, Denver, Colorado, February 2000.

Best practices in Applying Sensory Processing Knowledge in Daily Life. Educational Cooperative Service Unit of the Metropolitan Twin Cities Area, St. Paul, Minnesota, February 2000.

NBCOT Standard Setting Study, Louisville, Kentucky, February 2000

Sensory Processing in Daily Life for Young and School Aged Children, Iselin, New Jersey, March 2000.

Best Practices in Serving Children in Public Schools, Green Bay, Wisconsin, April 2000.

Sensory Issues Related to the Pediatric Population, Cincinnati, Ohio, May 2000.

Sensory Processing in Daily Life, Falls Church, Virginia, June 2000.

Enhancing Sensory Integration and Self-Regulation in Young Children with Autism Spectrum Disorders, Tallahassee, Florida, June 2000.

Grants

Accommodating Students with Disabilities in Post-Secondary Environments, US Department of Education, Office of Special Education Programs, Subcontract with University of Kansas Center for Research on Learning, Division of Adult Studies, 1999-2002, \$15,000/year (OT).

Michelle Fisher, Teaching Associate

Presentations

Heartland Occupational Therapy Fieldwork Alliance Fall 1999 workshop.

Heartland Occupational Therapy Fieldwork Alliance Spring 2000 workshop.

Heartland Occupational Therapy Fieldwork Alliance New Fieldwork Educators Workshop.

Katherine Froehlich, M.A., Teaching Associate

Research Interests

Promoting the health and independence of people with disabilities. Over the past three years, I have been coordinating a research project investigating the effect of a community-based exercise program on increasing the physical activity levels of women with mobility impairments and impact of increased activity on their physical and self-reported psychological health.

Laboratory

Data collection is conducted at the Kirmayer Fitness Center, and at the Research and Training Center on Independent Living, University of Kansas, Lawrence.

Publications

Froehlich, A.K., Nary, D.E., Bigelow, K.M., Figoni, S.F., & White, G.W. (in press). Measuring physical activity among persons with disabilities. Measurement in Physical Education and Exercise Science.

White, G.W., Nary, D.E., & Froehlich, A.K. (in press). Consumers as collaborations in research and action. Journal of Prevention and Intervention in the Community.

Nary, D.E., Froehlich, A.K., & White, G.W. (in press). Accessibility of private fitness facilities for people with disabilities: Results of a survey in Topeka, KS. Topics in Spinal Cord Injury.

Leong, D., Froehlich, A.K., & White, G.W. (in preparation). Engagement in health behaviors among women with mobility impairments.

Nary, D.E., Froehlich, A.E., Bigelow, K., & White, G.W. (in preparation). Identifying barriers to participation in physical activity for women with disabilities.

Presentations

Effectiveness of a home-based program to increase physical activity among women with mobility impairments. April 2000. Invited presentation to the conference on Women's Health: Putting Prevention into Practice, sponsored by the Kansas Department of Health and Environment's Kansas Women's Health Initiative in Topeka, KS.

Effectiveness of a home-based program to increase physical activity among women with mobility impairments. February 2000. Invited presentation to the Physical Therapy Education Department, University of Kansas Medical Center, Kansas City, KS.

Increasing physical activity and preventing secondary conditions for women with mobility impairments. November 1999. Presented at the 127th Annual Meeting of the American Public Health Association, Disability Forum, Chicago, IL.

Measuring physical activity among persons with disabilities. October 1999. Presented at the Cooper Institute Conference Series: Measurement of Physical Activity. Dallas, TX.

Increasing physical activity for women with mobility impairments. September 1999. Presented at the 45th Annual Conference of the American Paraplegia Society, Las Vegas, NV.

Grant Participation

Centers for Disease Control and Prevention funded research investigating "Physical activity among women with mobility impairments" – work as project coordinator.

Collaborating with the Center on Aging with a pilot project to examine promoting exercise adoption and maintenance for individuals with stroke.

Providing technical support to Chair of the Physical Medicine and Rehabilitation Department on research proposal to investigate use of the AMA system for determining disability level.

Currently assisting the Research and Training Center on the Lawrence campus in writing a Center grant to the National Institute on Disability and Rehabilitation Research (NIDRR), Department of Education for an additional five years of funding on research in new paradigms of independent living with emerging disability populations.

Wendy Hildenbrand, Teaching Associate

Publications

Hildenbrand, W. (2000). Psychosocial occupational therapy in school based practice: Opportunities for impact. Proactive Approaches in Psychosocial Occupational Therapy. Thorofare, NJ: SLACK, INC.

Presentations

“Prosocial Model-Promising Movement” – Contributing module to Community Models of Psychosocial Practice, AOTA web-based continuing education course, February, 2000.

“Promoting Partnerships In Mental Health: Leadership Training Seminar” (faculty) – AOTA, October, 1999.

Joan McDowd, Ph.D., Associate Professor

Research Interests

Cognition and aging. My work in this area focuses on age-related changes in selective attention and distractibility.

Laboratory

The Grayhawk Lab is located in Building 48, 4125 Rainbow.

Publications

McDowd, J.M., & Shaw, R.J. (2000). Aging and attention: a functional perspective (pp. 221-292). In F.I.M. Craik & T.A. Salthouse, (eds), Handbook of Aging and Cognition, 2nd edition.

Pohl, P.S., McDowd, J.M., Filion, D.L., Richards, L.G., & Stiers, W. (submitted). Implicit learning of a perceptual-motor skill after stroke.

Murphy, D.R., McDowd, J.M., & Wilcox, K. (1999). The influence of auditory selective attention on speech processing in young and old adults. Psychology and Aging, 14,44-59.

Brink, J.M. & McDowd, J.M. (1999). Aging and selective attention: an issue of complexity or multiple mechanisms? Journal of Gerontology: Psychological Sciences, 54B, P30-33.

Presentations

McDowd, J.M., Filion, D.L., Pohl, P.S., Richards, L.G., Stiers, W. (February, 2000). Attention and learning following stroke. 25th International Stroke Conference, New Orleans, LA.

McDowd, J.M., Filion, D.L., Tipper, S., & Weaver, B. (April, 2000). Inhibition of return in young and old adults. Cognitive Aging Conference, Atlanta, GA.

McDowd, J.M. (May, 2000). Inhibitory function in selection attention and aging: Empirical, theoretical, and practical considerations. Perspectives on Human Memory and Cognitive Aging Symposium, Toronto, Ontario.

Grants

Department of Defense, "Physical, Cognitive, and Psychological Effects of a Selective Estrogen Receptor Modulator in Women at Risk for Breast Cancer". 7/1/00-3/30/02, \$78,000, PI, Annette Stanton, (Department of Psychology, Lawrence), Co-investigator, J.M. McDowd

National Institute of Aging, Claude D. Pepper Older Americans Independence Center, Intervention development study, "Attention and motor learning after stroke". 1/1/98 - 12/31/02, \$350,984. Project Director, J.M. McDowd, (Collaborators: Diane Filion, Psychology, UMKC, Patricia Pohl, PT Education, KUMC, Lorie Richards, OT Education, KUMC, Bill Stiers, Rehabilitation Medicine, KUMC), PI for Pepper Older Americans Independence Center, Stephanie Studentski.

National Institute of Aging, "Attention and aging: understanding negative priming". 5/1/96 - 4/30/01, \$595,816. PI, J.M. McDowd.

Center on Aging, Pepper Pilot Project, "Meeting dual task demands following stroke: Linguistic and motor domains". /1/00 – 31/12/00, \$25,000, Co-Investigators: J.M. McDowd, OT Education, S. Kemper, Gerontology & Psychology, Lawrence, and P.S. Pohl, PT Education.

National Institute on Aging, "Tracking older adults eye movements during reading". 1/1/01 – 12/31/05; \$900,000, PI: Susan Kemper (Psychology and Gerontology, Lawrence), Co-Investigators: J.M. McDowd, J. Radel (OT Education, KUMC) (submitted).

Ellen Mellard, MS, Teaching Associate

Grant Activity

Submitted a grant proposal to KDHE to provide technical assistance to Infant Toddler Program, statewide. – still pending for up to \$60,000.

Becky Nicholson, MEd, Teaching Associate

Presentations

Integration of Assistive Technology - Sensory Motor Frame of Reference. Leavenworth County Special Education Coop.

Best practices in service deliver models. Leavenworth County Special Education Coop.

Kathy Parker, MS, Teaching Associate

Presentations

Follow-up to Adult Education Accommodation's Grant: Two hour round table discussion, Summer Institute, Manhattan, KS, July 9, 1999.

"Opening Doors" (training for SRS and Kansas Department of Human Resources Case Managers), November 23, 1999, Lawrence; December 16, 1999, Kansas City, KS;

January 17, 2000, Olathe; January 20, 2000, Leavenworth; January 25, 2000, Atchison; February 3, 2000, El Dorado; and April 6, 2000, Hutchinson.

Beyond Ramps, Summer Institute, Manhattan, KS, June 30, 1999.

Opening Doors, Heartland Conference, May 17, 2000.

Help Wanted, May 24, 2000, Kansas City; and June 1, 2000, Wichita.

Grant Activity

CHOICES, submitted to NIDRR/Field Initiated Research, \$150,000. Not funded.

Individuals with disabilities and healthcare. Submitted to Robert Wood Johnson Foundation. Collaboration with Center for Research on Learning, Division of Adult Studies.

Opening Doors: Empowering people with disabilities, Funded by Kansas Department of Human Resources. 1999-2001. Granted to University of Kansas Center for Research on Learning, Division of Adult Studies. Subcontract for Occupational Therapy--\$20,000/year.

Jeff Radel, Ph.D., Assistant Professor

Research Interests

Neural plasticity and function via investigation of anatomic relations and functional capacities of the visual system altered following perturbations during development. Factors influencing control of eye movements in humans, particularly those made during daily life tasks.

Laboratory

Rooms 2003, 2004, 2005, and 2014 of the MRRC West Building.

Publications

LeVine, S.M., J.D. Radel, J.A. Sweet, and D.L. Wetzel (2000) " Microchemical Analysis of Retinal Layers in Pigmented and Albino Rats by Fourier Transform Infrared--Microspectroscopy." *Biochem. Biophys. Acta* 1473;409-417.

Bone-Larson, C.L, S. Basu, J.D. Radel, T. Perozek, D.G. Green, N. Kapousta-Bruneau, M. Burneister, M.H. Hankin (2000) Partial Rescue of the Ocular Retardation Phenotype by Genetic Modifiers. *J. Neurobiol.* 42:232-247.

Homan, J.A., J.D. Radel, D. Wallace, D.L. Wetzel, and S.M. LeVine (2000) Chemical changes in the photoreceptor outer segments due to iron induced oxidative stress and trauma: Analysis by Fourier transform infrared (FT-IR) microspectroscopy. *Cell. Mol. Biol.* (in press).

Mitzner, T.L., J.D. Radel, D. Filion, and S. Kemper (1999) Aging and contextual constraint: Evidence from eye movements. *Society for Psychophysiological Research.*, 36 (Supp).

Radel, JD, JA Homan, DD Wallace, DL Wetzel, SM LeVine (2000) Chemical Changes in Photoreceptor Outer segments due to Iron-induced Oxidative Stress: Analysis by Fourier Transform Infrared (FT-IR) Microspectroscopy. *Invest. Res Vision Ophthalmol.*, 41: (in press).

Mitzner, TL, JD Radel, D Filion, and S Kemper (2000) Effects of contextual constraint on young and older adult's eye movements during reading. *Cognitive Aging* (in press).

Presentations

LeVine, SM, Radel, JD, and Wetzel, DL. (1999) FT-IR microspectroscopic examination of the rat retina. *Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy*, 50th meeting, #790.

Grant

"Effects of Pigment Epithelium-deprived factor (PEDF) on photoreceptor differentiation and ability in retinal transplants" J. Radel (P.I.) KUMC School of Allied Health seed grant. 7/99 – 06/00 (\$3,010).

Melisa Rempfer, Ph.D., Teaching Associate

Research Interests

Exploring the relationships between cognitive functioning and clinical symptoms in people with schizophrenia; cognition and independent living skills training for people with mental illness.

Publications

Rempfer, M., Brown, C. & Hamera, E. Cognition and real-world functioning in people with schizophrenia: Examining independent living skills in the natural environment. Manuscript in preparation.

Hamera, E., Brown, C. & Rempfer, M. Construct validity of the Test of Grocery Shopping Skills. Manuscript in preparation.

Brown, C., Hamera, E., Rempfer, M. The effects of a skills training intervention for improving grocery shopping ability in people with schizophrenia. Manuscript in preparation.

Buhman-Wiggs, A., Rempfer, M., & Cromwell, R.L. Psychiatric Disability and stigma: Using public service announcements to change attitudes. Manuscript submitted for review.

Presentations

Rempfer, M. (November, 1999). Cognitive functioning, clinical symptoms and independent living skills in people with schizophrenia. Poster presented at the annual meeting of the Society for Research in Psychopathology. Montreal, Canada.

Rempfer, M., Hamera, E., & Brown, C. (November, 1999). Independent living skills in people with schizophrenia. Presentation at the 1999 Faculty Research Day, University of Kansas Medical Center, Kansas City, KS.

Brown, C., Hamera, E., & Rempfer, M. (April, 2000) Teaching individuals with schizophrenia to shop: The role of cognition. Presentation at the annual meeting of the American Occupational Therapy Association. Seattle, WA.

Grants

“Independent living for people with psychiatric disabilities: Using contextual cues to remove environmental barriers.” National Institute of Disability and Rehabilitation Research, Submitted Sept. 1999, Co-Investigator/Intervention Specialist (PI: Catana Brown, PhD), \$148,765 - year 1 (total - \$433,543).

“Evaluating independent living skills: Developing a test of meal planning.” Application to School of Allied Health Research Committee, Submitted April 1, 2000. PI: Melisa Rempfer, PhD, \$7615.

Lorie Richards, Ph.D., Teaching Associate

Research Interests

Examining factors that affect stroke recovery: Attentional processing and type of therapy for physical impairments, role of self-efficacy.

Laboratory

Space in Building 48 across from the Grayhawk Lab.

Publications

Richards, L., & Pohl, P. (1999). Therapeutic interventions to improve upper extremity recovery and function. Clinics in Geriatric Medicine, *15*, 819-832.

Pohl, P., & Richards, L. (in press). Stroke rehabilitation: Developing intervention programs and assessing outcomes.

Richards, L., Stoker-Yates, J., Pohl, P., Wallace, D., & Duncan, P. (submitted). Reliability and validity of two tests of upper extremity motor function post-stroke.

Pohl, P., McDowd, J., Filion, D., Richards, L., & Stiers, W. (in preparation). Procedural sequence learning after stroke: practice and retention. (this will be submitted prior to the end of the fiscal year).

Presentations

Motor sequence learning following stroke, February, 2000, American Physical Therapy Association - national audience.

Motor sequence learning in stroke survivors: Implicit and explicit indicators, Nov 11, 1999, KUMC Faculty Research Day - local.

McDowd, J., Filion, D., Pohl, P., Richards, L., & Stiers, W., February 10, 2000, American Heart Association's 25th International Stroke Conference, national - multiple disciplines represented.

Richards, L. Office ergonomics. - May 4 - Institute for Internal Audits - Kansas City business people

Grant Participation

Improving recovery after stroke NIH - funded - co-investigator - COA, PT, Preventative Medicine - \$1,558,297.

Attention and Motor learning after stroke - NIH - funded - co-investigator - COA, Rehabilitation Medicine, Psychology at UMKC, PT - \$350,984.

Geriatric Education Center -Bureau of Health Professions - funded - OT faculty - COA, Nursing, Dentistry at UMKC, Medicine, PT, Dietetics, Speech and Hearing, Social work, Pharmacy - \$749,224.

Rural Interdisciplinary Training - -funded - OT faculty - PT, Medicine, COA, Speech, social work, respiratory care - \$612,270

Functional practice with the hemiplegic upper extremity after stroke -SAH research grant - funded - consultant - PT - \$6,990

Mary Jane Youngstrom, MS, Teaching Associate

Publication

Youngstrom, M.J. (2000, April 10). Considerations for effectively translating OT into new arenas. OT Practice, 7-9.

Presentations

KOTA Keynote Presentation "Occupational Therapy in the 21st Century." October 30, 1999.

At the core of Our Profession : Occupation based practice; Baum, C.: Youngstrom, M.J. Duncombe, L., Slater, D. & Brown C. November 1999, Reno NV.

We are what we say....AOTF General Session. Main presenter Dr. Don Lollar. Discussant after his presentations included MJ Youngstrom, Jean Dietz, Cynthia Hugher-Harris, Virginia Stoffel.

**Department of Physical Therapy Education
3056 Robinson
588-1587**

Daofen Chen, Ph.D., Assistant Professor

Research Interests

Synaptic interactions and plasticity in the primate cortical circuitry during normal motor skill acquisition or recover after injury in a monkey model of stroke; neural mechanisms of spasticity in humans and spinal reflex physiology in vertebrate animals.

Laboratory

Room 2008, MRRC

Publications

Chen, D., Theiss, R.D., Ebersole, K., Miller, J.F., Rymer, W.Z., & Heckman C.J. (2000) Spinal interneurons that receive input from muscle afferents are differentially modulated by dorsolateral descending systems. Journal of Neurophysiology (submitted).

Fetz, E.E., Chen, D., Murthy, V.N., & Matsumura, M. (2000) Synaptic interactions mediated synchrony and oscillations in primate sensorimotor cortex. Journal of Physiology (Paris), accepted with condition.

Chen, D-F., B. McKiernan, & C.S. Enwemeka, "Developing and delivering a distance education program in physical therapy", Proceedings of 13th International Congress of the World Confederation for Physical Therapy, Yokohama, Japan, May 23-28, 1999.

Presentations

Chen, D. Motor cortical plasticity during motor learning and after injury, KUMC School of Allied Health Research Seminar. Feb. 2, 2000.

Grants

Chen, D. (PI) KUMC FY 2000 Shared Biomedical Equipment Grant, \$11,405 (2000).

Chen, D. (Principal Investigator). Neural basis of functional recovery from stroke. American Heart Association Scientist Development Grant. \$65,000, 1998/99 (1999-2002).

Chukuka Enwemeka, Ph.D., Professor and Chair

Research Interests

Biochemistry and biomechanics of the healing of connective tissue. Special interest in the use of laser photostimulation in healing.

Laboratory

Connective Tissue Research Laboratory, 5031 Wahl Hall West; Ruth Blanchard Biomechanics Lab and Patch Clamp/Imaging Facility in 5018 WHW.

Publications

Chen, D-F., B. McKiernan, & C.S. Enwemeka, "Developing and delivering a distance education program in physical therapy", Proceedings of 13th International Congress of the World Confederation for Physical Therapy, Yokohama, Japan, May 23-28, 1999.

Presentations

Enwemeka, C. S. Therapeutic Ultrasound: The Science Behind the Practice. Invited workshop, Universidad de Ribeirao Preto, Ribeirao Preto, Brazil, October 1999.

Enwemeka, C. S. Introduction to Laser Therapy. Invited workshop, Universidad de Ribeirao Preto, Ribeirao Preto, Brazil, October 1999.

Reddy, G.K., Stehno-Bittel, L., and Enwemeka, C.S: Laser photostimulation promotes skin wound healing in an experimental rat model of diabetes. 3rd World Congress for the World Association for Laser Therapy, Athens, Greece, May 10-13, 2000.

Reddy, G.K., Stehno-Bittel, L., and Enwemeka, C.S: Influence of streptozotocin induced diabetes on cardiac connective tissue in rat. American Society of Biochemistry and Molecular Biology, San Francisco, CA May 15-20, 1999.

Grants

Enwemeka, C. S. (Principal Investigator), & Thomas, J. H. (Co-Investigator). The effects of PHOTONS*:PLUS™ GaAIAs 830 nm laser on slow healing and resistant human ulcers. Ronvig A/S, Daugaard, Denmark. \$83,925.

Wen Liu, Ph.D., Assistant Professor

Research Interests

Quantification of motor recovery in balance; gait after stroke and objective measurement of ankle instability.

Laboratory

Kirmayer Fitness Center; Human Performance Laboratory in the Center on Aging

Publications

Liu, W., Maitland, M: The effect of hamstring muscle forces on functional instability of the ACL-deficient knee during gait. Journal of Biomechanics, 33:871-879, 2000.

Liu, W., Siegler S, and Techner L: Using an anthropometer to determine ankle mechanical instability in acute and chronically sprained ankles. Clinical Biomechanics (conditionally accepted).

Liu, W., Maitland M, Nigg BM: The effect of axial load on the anterior drawer test of ankle joint complex. Foot & Ankle International, 21:420-426, 2000.

Liu, W., Nigg BM: A mechanical model to determine the influence of masses and mass distribution on the impact force during running. Journal of Biomechanics, 33:219-224, 2000.

Liu W, Maitland, M: The influence of individual anthropometric and mechanical variations on functional instability in the ACL-deficient knee during gait. XVIII International Symposium of Biomechanics in Sports, Hong Kong, 2000.

Liu W, Richardson K, Lipsitz LA, and Collins JJ: Using electrical noise to reduce vibrotactile thresholds in human. Proceedings of the 23rd Annual meeting of the American Society of Biomechanics, Pittsburgh, October, 1999.

Liu W, Maitland, M: Assessment of methods to diagnose ACL-injuries using simulated knee arthrometer tests. Proceedings of the 17th Congress of the International Society of Biomechanics, Calgary, Canada, August 1999.

Presentations

Liu, W. Stochastic approach for the analysis of balance control during quiet standing. Invited presentation, Center on Aging, University of Kansas Medical Center, Kansas City, KS, February 2000.

Liu, W. Application of random signal processing in biological systems. Invited presentation, Mathematics Department, University of Kansas, Lawrence, KS, April, 2000.

Grants

Liu, W. Career Development Award. Kansas Claude D. Pepper Older Americans Independence Center. \$16,000, 1999/00 (1999-2002).

Liu, W. Pilot Project Award. Kansas Claude D. Pepper Older Americans Independence Center. \$29,250, 2000/2001 (2000-2001).

Janice Loudon, Ph.D., Assistant Professor

Research Interests

Collaboration with St. Luke's - Shawnee Mission Health Systems on collecting data on female runners with the Avon Training Team; development of functional lower extremity tests for individuals with patellofemoral dysfunction.

Laboratory

Kirmayer Sports Fitness Center; Georgia Holland Cardiopulmonary Therapeutics Lab, G047 Olathe Pavilion

Publications

Loudon JK (2000) Reliability of two videographic methods to obtain knee PICR in healthy human adults Clin Kines 54:4-12.

Loudon JK (2000) Measurement of Knee-Joint-Position Sense in Women with Genu Recurvatum J Sport Rehab 9:15-25.

Loudon JK (1999) Case report: Manual therapy management of hip osteoarthritis. The Journal of Manual & Manipulative Therapy. 7:203-208.

Loudon, J. K., Goist, H. L., Wiesner, D. K. (1999). Reliability of functional performance tests for individuals with patellofemoral pain syndrome. [Abstract]. Journal of Orthopaedic and Sports Physical Therapy 29, 1, A- 47.

Presentations

Loudon, J.K. "Functional Testing for Extensor Mechanism Dysfunction." Combined Sections Meeting, New Orleans, LA, February, 2000

Loudon, J.K. "Assessment and Management of Lumbar Spine Dysfunction in Athletics." Cramer Products, San Jose, CA May, 2000.

Loudon, J.K. "Comprehensive Assessment and Treatment of the Knee." Bethany Medical Center, Kansas City, KS April, 2000

Submitted Grant

Exercise for Females with Patellofemoral Dysfunction, RO3, National Institute of Health for 2 years. PI: Loudon, J.K. \$150,000 (submitted February, 2000).

Brian McKiernan, Ph.D., Instructor

Research Interests

Neurologic rehabilitation; brain control of movement; muscle activation patterns during activity; balance control.

Laboratory

GO47, Olathe Pavilion.

Publications

Cheney, P.D., Belhaj-Saïf, A., McKiernan, B.J., Park, M.C., Hill-Karrer, J. (2000) Cortical motor areas and their properties: implications for neuroprosthetics. JNeurophysiol. (submitted).

McKiernan, B.J., Marcario, J.K., Hill-Karrer, J, Cheney, P.D. (2000) Correlations between the magnitude of corticomotoneuronal (CM) cell postspike effects and cell-target muscle covariation. J. Neurophysiol., 83:99-115.

Marcario, J.K., Raymond, L.A.M., McKiernan, B.J., Foresman, L.L., Joag, S.V., Raghavan, R., Hershberger, S., Narayan, O. and Cheney, P.D. (1999) Motor skill impairment in SIV Infected rhesus macaques with rapidly and slowly progressing disease. J. Med. Primatol., 28:105-117.

Presentations

McKiernan, B.J. Electrotherapy Update. Presented to Department of Physical Therapy. University of Kansas Medical Center, Kansas City, KS, May 18, 2000.

McKiernan, B.J. Neuromuscular Electrical Stimulation. Presented to residents in Department of Physical Medicine and Rehabilitation. University of Kansas Medical Center, Kansas City, KS, March 24, 2000.

McKiernan, B.J. TENS. Presented to residents in Department of Physical Medicine and Rehabilitation. University of Kansas Medical Center, Kansas City, KS, March 20, 2000.

McKiernan, B.J. CVA Rehab: Managing the Rehabilitation Process (3 hours). University of Kansas Medical Center, Kansas City, KS (ITV to AHECs in Hays, Dodge City, Parsons and Hill City), May 5, 1999.

Patricia S. Pohl, Ph.D., Associate Professor

Research Interests

Motor learning in older adults and individuals with stroke.

Laboratory

Human Performance Laboratory of the Center on Aging and the Motor Learning Laboratory (part of the Grayhawk Lab).

Publications

Pohl, P. S., Startzell, J. K., Duncan, P. W., & Wallace, D. (in press). Reliability of lower extremity isokinetic strength testing in adults with stroke. Clinical Rehabilitation.

Pohl, P. S., Luchies, C., Stoker-Yates, J., & Duncan, P. (2000) Upper extremity control in adults post-CVA with mild residual impairment. Neurorehabilitation and Neural Repair, 14, 33-41.

Pohl, P. S. & Winstein, C. J. (1999). Practice effects on the less affected upper extremity after stroke. Archives of Physical Medicine and Rehabilitation, 80, 668-675.

McDowd, J. M., Filion, D. L., Pohl, P. S., Richards, L. G., & Stiers, W. (2000) Attention and learning following stroke. Abstract, Stroke, 31, 303.

Pohl, P. S., Luchies, C., Stoker-Yates, J., & Duncan, P. (1999). Upper extremity control in stroke survivors with mild impairment. Abstract, Society for Neuroscience, 25, 907.

Richards, L., & Pohl, P. S. (1999). Therapeutic interventions to improve upper extremity recovery and function. Clinics in Geriatric Medicine, 15, 819-832.

Presentations

Pohl, P.S., Startzell, J. K., Duncan, P. W., & Wallace, D. (Poster) Reliability of lower extremity isokinetic strength testing in adults with stroke., Combined Sections Meeting of the APTA, New Orleans, LA, February 2000.

Pohl, P.S., McDowd, J. M., Filion, D., Richards, L., & Stiers, W. (Poster) Motor sequence learning following stroke., Combined Sections Meeting of the APTA, New Orleans, LA, February 2000.

Van Culin, V., Pohl, P. S., Duncan, P. W., & Wallace, D. A comparison of mobility measures: sensitivity to change in stroke survivors. Poster, Gerontological Society of American annual meeting, San Francisco, CA, November 1999.

Pohl, P. S., Luchies, C. W., Stoker-Yates, J., & Duncan, P. W. Upper extremity control in stroke survivors with mild impairment. Poster presented at Faculty Research Day, University of Kansas Medical Center, Kansas City, KS, November 1999.

McDowd, J., Pohl, P., Filion, D., Richards, L., & Stiers, W. Motor sequence learning in stroke survivors: implicit and explicit indicators. Poster presented at Faculty Research Day, University of Kansas Medical Center, Kansas City, KS., November 1999.

Grants

Pohl, P. S. (Principal Investigator). Motor learning in individuals post-stroke. National Institutes of Health (NCMRR/NICHHD). \$61,216 1998/99 (1997-2002).

Pohl, P.S. (Principal Investigator) Functional practice with the hemiplegic upper extremity after stroke. School of Allied Health, University of Kansas Medical Center \$6,900; 1999-2000.

Submitted Grants

Motor control deficits related to macular scotomas: basis for rehabilitation to Department of Veterans Affairs for 3 years. PI's: Maino, Timberlake; Co- PI: Pohl. \$510,000 (submitted April, 2000).

Attentional demands of postural control to NICHHD/NCMRR/NIH for 3 years of funding. PI: Pohl. \$300,000 (submitted June, 2000)

Attentional demands of postural control after stroke to American Heart Association-Bugher Foundation Award for 4 years. PI: Pohl \$400,000 (submitted June, 2000)

G. Kesava Reddy, Ph.D., Research Assistant

Research Interests

The role of connective tissue in health and disease.

Laboratory

Connective Tissue Research Laboratory, 5031 Wahl Hall West; Ruth Blanchard Biomechanics Lab and Patch Clamp/Imaging Facility in 5018 WHW.

Publications

Reddy, G. K., Stehno-Bittel, L., & Enwemeka, C. S. (1999). Matrix remodeling in regenerating rabbit Achilles tendon. Wound Repair and Regeneration, 7, 518-527.

Ekekezie, I.I., Thibeault, D.W., Rezaeikhaligh, M.H., Mabry, S.M., Norberg, M., Reddy, G.K., Youssef, J. and Truog, W.E: (2000) High Dose Inhaled Nitric Oxide and Hyperoxia Increases Lung Collagen Accumulation in Piglets. Biology of Neonate (in press).

Reddy, G. K., Enwemeka, C. S., and Stehno-Bittel, L. (2000). Modulation of connective tissue matrix stability in the rabbit achilles tendon by ex vivo nonenzymatic glycation. (under review).

Reddy, G. K., Enwemeka, C. S., and Stehno-Bittel, L. (2000). The biomechanical integrity of bone in experimental diabetes. (under review).

Presentations

Reddy, G.K., Stehno-Bittel, L., and Enwemeka, C.S.: Influence of streptozotocin induced diabetes on cardiac connective tissue in rat. American Society of Biochemistry and Molecular Biology, San Francisco, CA May 15-20, 1999.

Reddy, G.K., Stehno-Bittel, L., and Enwemeka, C.S.: Laser photostimulation promotes skin wound healing in an experimental rat model of diabetes. 3rd World Congress for the World Association for Laser Therapy, Athens, Greece, May 10-13, 2000.

Lisa Stehno-Bittel, Ph.D., Associate Professor

Research Interests

Cellular effects of physical therapy interventions.

Laboratory

Connective Tissue Research Laboratory, 5031 Wahl Hall West; Ruth Blanchard Biomechanics Lab and Patch Clamp/Imaging Facility in 5018 WHW.

Publications

Chi, L., Yuai, Li, Stehno-Bittel, L., Gao, J., Morrison, D. C., Stechschulte, D. J., and Dileepan, K. (2000) Interleukin-6 production by endothelial cells via protease-activated receptor stimulation is synergized by endotoxin and tumor necrosis factor (in press).

Reddy, G. K., Stehno-Bittel, L., & Enwemeka, C. S. (1999). Matrix remodeling in regenerating rabbit Achilles tendon. Wound Repair and Regeneration, 7, 518-527.

Reddy, G. K., Enwemeka, C. S., and Stehno-Bittel, L. (2000). Modulation of connective tissue matrix stability in the rabbit achilles tendon by ex vivo nonenzymatic glycation. (under review).

Reddy, G. K., Enwemeka, C. S., and Stehno-Bittel, L. (2000). The biomechanical integrity of bone in experimental diabetes. (under review).

Chi, L., Li, Y., Stehno-Bittel, L., Morrison, D. C., Stechschulte, D. J., Dileepan, K. N. (2000) Endothelial cell production of interleukin-6 via protease activated receptor stimulation is enhanced by endotoxin and the TNF-? .. J. Immunol.(A).

Presentations

Reddy,G.K., Stehno-Bittel,L., and Enwemeka,C,.S: Influence of strptozotocin induced diabetes on cardiac connective tissue in rat. American Society of Biochemistry and Molecular Biology, San Francisco, CA May 15-20, 1999.

Reddy, G.K., Stehno-Bittel, L., and Enwemeka, C.S: Laser photostimulation promotes skin wound healing in an experimental rat model of diabetes. 3rd World Congress for the World Association for Laser Therapy, Athens, Greece, May 10-13, 2000.

Grants

Stehno-Bittel, L. (Principle Investigator) Calcium regulates the structure/function of the nuclear pore complex. National Institutes of Health, \$205,545 1999/2000 (1999-2004).

Stehno-Bittel, L. (Principal Investigator) Multi-photon confocal microscope, National Institutes of Health (NCRR). \$447,000 2000/2001 (2000-2001).

Stehno-Bittel, L. (Principal Investigator) SABIT training grant, Department of Commerce. \$10,500 1999/2000 (1999-2000).

Brown, M. (Principle Investigator) and Stehno-Bittel, L.(Co-Investigator) Prehabilitation versus Rehabilitation. National Institutes of Health, \$94,759 1999/2000 (1998-2003).

Submitted Grant

Real-time palpation imaging for improved detection and discrimination of breast abnormalities. PI Hall, T., Co-I: Stehno-Bittel, L. U.S. Army, \$676,078 (submitted, November, 1999).

Other faculty members from the Department of Physical Therapy Education who participated in research activities with senior faculty included **Heather Goist, and Perri Cagle.**

Department of Respiratory Care Education
4006 Delp
588-4630

Mike Czervinske BS, RRT

Research presentations FY 1999-2000 Cervinske

Save a Life, Advising Your Patient To Quit Smoking. Midwest Respiratory Care Symposium, (Missouri Society of Respiratory Care, Kansas Society Respiratory Care and Respiratory Care Managers Association). Kansas City, MO. February, 2000.

Effect of Ventilator Triggering on Distribution of Lung Volume during Neonatal Mechanical Ventilation, Report of Preliminary Results. School of Allied Health Research Forum, University of Kansas Medical Center. Kansas City, KS. February 2000.

Publications FY 1999-2000

Czervinske, MP. Pediatric Tracheostomy, Clinical Perspectives Part 2. AARC Times 1999; 23(9): 33-36.

Czervinske, MP. Pediatric Tracheostomy, Clinical Perspectives Part I. AARC Times 1999; 23(9): 31-33.

Bethene Gregg MS, RRT

Publications

Mathews P.J., & Gregg, B.L. Monitoring and Management of the Patient in the ICU. In Scanlan C.L., Wilkins R.L., & Stoller J.K. (Ed.) Egan's Fundamentals of Respiratory Care. St. Louis, MO.: Mosby, Inc.

Presentations

Colegio Santa Paula & Institute of Clinical Investigation's sponsored course on Mechanical Ventilation for Central American Physicians. San Jose, Costa Rica, May 25 – June 5 2000

Functional Classification of Ventilator Modes
Waveform Analysis

Barbara Ludwig MA, RRT

Appointed to US Public Health Service- BrHP Allied Health Special Projects Grant
Panel held between May 22-24.

Paul Mathews PhD, RRT, FCCM, FCCP

Publications

Mathews P.J., & Gregg, B.L. Monitoring and Management of the Patient in the ICU.
In Scanlan C.L., Wilkins R.L., & Stoller J.K. (Ed.) Egan's Fundamentals of
Respiratory Care. St. Louis, MO.: Mosby, Inc.

Presentations

New Jersey Society for Respiratory Care annual meeting, October 1999
New Trends in Patient Assessment

New York Society for Respiratory Care Annual Symposium, West Point, NY.
October 1999 New Trends in Patient Assessment

Hawaii Society for Respiratory Care Annual Symposium, Honolulu, HA March 2000
Developing a Pulmonary Rehabilitation Program
Preventing Nosocomial Infection
Interpreting Arterial Blood Gases
Arterial Blood Gas Case Studies: Predicting Arterial Blood Gases

8th Congress of Asian Pacific Association of Respiratory Care
Beijing, China, October, 2000
Workshop Leader on Aerosol Therapy
Plenary lecture on A Curriculum for Respiratory Care
Mini-Plenary Lecture on Respiratory Care in the Home Setting: Sleep, Rehabilitation
and Oxygen Therapy
Panel Discussant for Respiratory Care in the Home

Midwest Respiratory Care Symposium, (Missouri Society of Respiratory Care,
Kansas Society Respiratory Care and Respiratory Care Managers Association).
Kansas
City, MO. February, 2000.
Patient Assessment.

Co-developer, organizer, director of and presenter in:
Colegio Santa Paula & Institute of Clinical Investigation sponsored
Continuing Education Course for Physicians: San Jose, Costa Rica 5/25 - 6/5/2000
Non-Invasive Mechanical Ventilation
Monitoring Mechanical Ventilation