

CURRICULUM VITAE

February, 2010

Name: Richard P. Steiner

Education: 1985 University of Michigan, PhD degree in Biostatistics
(Ann Arbor, MI)

1982 University of Michigan, MPH degree in Biostatistics
(Ann Arbor, MI)

1979 Clarion State College, MS degree in Biology
(Clarion, PA)

1976 Grove City College, BS degree in Biology
cum laude, high honors in Biology (Grove City, PA)

Professional
Experience:

2006 University of Akron, Office of the Senior Vice President &
Provost, Akron, Ohio, Faculty Fellow

2004-Pres University of Akron, Dept. of Statistics,
Akron, Ohio, Professor (Tenured)

1999-Pres NEOUMPH/CEOMPH Faculty

1998-2004 University of Akron, Dept. of Statistics,
Akron, Ohio, Associate Professor (Tenured)

1988-1998 University of Akron, Mathematical Sciences Dept.,
Akron, Ohio, Associate Professor (Tenured)

1983-1988 University of Akron, Mathematical Sciences Dept.,
Akron, Ohio, Assistant Professor

1982-1983 University of Michigan, Research Assistant,
Statistical Research Laboratory, Consultant

1982-1983 Burn Research Center, Department of Surgery,
University of Michigan, Research Assistant

1980-1982 Institute for Social Research, University of Michigan,
Research Assistant II

1980-1982 Department of Biostatistics, University of Michigan,
Teaching Assistant (Elements of Biostatistics, Biostatistical
Analysis for the Health Services, Introduction to Regression)

1977-1978 Butler, Grove City, and Slippery Rock School Districts
Substitute Teacher Secondary Level (Pennsylvania)

1976-1977 Portersville Christian School Science Teacher Grades 7-12,
and
1978-1979 Health, and Physical Education (Portersville, PA)

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University Service/
Committee Membership:

- Faculty Senate (2001-2006)
- Faculty Senate Executive Committee (2004-2006)
- Curriculum Review Committee (2001-2008)
- Computing & Communications Technology Committee (2004-2006)
- Buchtel College Appeals Committee (2005-2006, 2009-pres)
- College-Wide Review Committee for Promotion to Distinguished Professor (2009-Pres; term expires 2012)
- Student Success and Retention Committee (2006-Pres)
 - Data Subcommittee (2006-2008)
 - Policies Subcommittee (2006)
- Learning Commons Planning Team (2006-Pres)
- Carnegie Academy for the Scholarship of Teaching & Learning UA Leadership Team (2006-2009)
- Engagement Council (2008-Pres)
 - Curricular Engagement Survey Committee (2009-Pres)
- Carnegie Foundation Elective Classification for Community Engagement, Curricular Engagement Application Work Team (2008)
- Carnegie Foundation Elective Classification for Community Engagement, Community Outreach & Partnership Application Work Team (2008)
- First Year Experience (FYE) Task Force (2007-Pres)
 - FYE Assessment Subcommittee (2008-Pres)
 - FYE Policies Subcommittee (2009-Pres)
- MAP-Works Pilot Study Steering Committee (2009-Pres)
- At-Risk Students Intervention Program Study Group (2010)
 - Cohort Subcommittee
 - Assessment Subcommittee
- Active Research Methods (ARM) Consortium (2008-Pres)
- Consortium of Eastern Ohio Universities Masters of Public Health (CEOUMPH) Program Faculty Appointments & Development Committee (2002-Pres; Chair 2004-Pres)

Publications:

Evenski, A. J., Adamczyk, M. J., Norberg, A., Norberg, J., Steiner, R. P., Morscher, M. A. and P. M. Riley. Clinically suspected scaphoid fractures in children. *Journal of Pediatric Orthopaedics*, 2009 JPO-7889R2 (Accepted for publication).

Schaaf, A.C., Weiner, D.S., Steiner, R.P., Morscher, M.A. and Dicinto, M.S. Fracture incidence following plate removal in Legg–Calve’–Perthes disease: a 32-year study. *Journal of Children’s Orthopaedics*, 2008 **2**: 381-385.

Giuffrida, J.P., Lerner, L., Steiner, R. and J. Daly. Upper extremity stroke therapy task discrimination using motion sensors and electromyography. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 2008 **16**(1): 82-90.

- Dowd, T., Kolcaba, K., Steiner, R. and D. Fashinpaur. Comparison of a healing touch, coaching, and a combined group on comfort and stress in younger college students. *Holistic Nursing Practice*, 2007 **21**: 194-202.
- Ehrman, J.D., Bender, E.T., Stojilovic, N., Sullivan, T., Ramsier, R.D., Buczynski, B.W., Kory, M.M. and R.P. Steiner. Microbial adhesion to zirconium alloys. *Colloids and Surfaces B: Biointerfaces*, 2006 **50**: 152-159.
- Kolcaba, K., Schirm, V., and R. Steiner. Effects of hand massage on comfort of nursing home residents. *Geriatric Nursing*, 2006 **27**(2): 85-90.
- Dowd, T., Kolcaba, K., and R. Steiner. Development of the Healing Touch Comfort Questionnaire. *Holistic Nursing Practice*, 2006 **20**(3): 122-129.
- Fisher, E.M., Kerr, M.E., Hoffman, L.A., Steiner, R.P. and R.A. Baranek. A comparison of gastric and rectal CO₂ in cardiac surgery patients. *Biological Research for Nursing*, 2005 **6**(4): 1-13.
- Steiner, R.P. and F. J. Brenner. Sampling procedures for studying the incidence and epidemiology of diseases in wildlife populations. *Wildlife Diseases: Landscape Epidemiology, Spatial Distribution and Utilization of Remote Sensing Technology*, Ed. by S.K. Majumdar, J.E. Huffman, F.J. Brenner, and A.I. Panah, 2005, The Pennsylvania Academy of Science: 428-433.
- Yamokoski, E.A., Buczynski, B.W., Stojilovic, N., Seabolt, J.W., Bloe, L.M., Foster, R., Zito, N., Kory, M.M., Steiner R.P. and R.D. Ramsier. Influence of Exposure Conditions on Biological Adhesion to Zirconium Alloys. *J. ASTM. Int.*, 2005 **2**(7).
- Janson, R. W., Krishna, L.B. and R.P. Steiner. Economic Performance of Ohio's 88 Counties. 2004, *Ohio Journal of Science* **104**(4): 97-100.
- Kolcaba, K., Dowd, T., Steiner, R. and M. Mitzel. Efficacy of Hand Massage for Enhancing the Comfort of Hospice Patients. *Journal of Hospice & Palliative Nursing*, 2004,**6**(2): 91-102.
- Buczynski, B. W., Kory, M. M., Steiner, R. P., Kittinger, T. A. and R. D. Ramsier. Bacterial adhesion to zirconium surfaces. *Colloids and Surfaces B: Biointerfaces*, 2003 **30**: 167-175.
- Dowd, T., Kolcaba, K. & Steiner, R. The addition of coaching to cognitive strategies: Interventions for persons with compromised urinary bladder syndrome. *Journal of WOCN: Wound, Ostomy and Continence Nursing*, 2003 **30**(2):90-99.
- Dowd, T., Kolcaba, K. & Steiner, R. Correlations among measures of bladder function. *Journal of Nursing Measurement*, 2002, **10**(1):27-38.

- Novak, B., Kolcaba, K., Steiner, R. and T. Dowd. Measuring comfort in caregivers and patients during late end-of-life care. *American Journal of Hospice & Palliative Care*, 2001, **18**: 170-180.
- Kolcaba, K. & Steiner, R. Empirical evidence for the nature of holistic comfort. *Journal of Holistic Nursing*, 2000, **18**: 46-62.
- Dowd, T., Kolcaba, K. & Steiner, R. Cognitive strategies to enhance comfort and decrease episodes of urinary incontinence. *Holistic Nursing Practice*, 2000, **14**: 91-103.
- Brenner, F. J., Steiner, R. P. and J. J. Mondok. Groundwater - surface water interaction in an agricultural watershed. *The Pennsylvania Academy of Science Journal*, 1996, **70**: 3-8.
- White, N., Green, A., and R. Steiner. An investigation of differences between three age groups in verbal and spatial task performance using the dual-task paradigm. *Brain and Cognition.*, 1995, **28**: 59-78.
- Jones, G., Schultz, F. and R. P. Steiner. Minority student opinion in three Northeastern Ohio two-year colleges: Who are they and how do they feel about their current college experience? *Ohio Association of Two-Year Colleges Journal* , 1994, **19**(2): 14-24.
- Steiner, R. P. and N. M. Wineman. Using SAS[®] software to check assumptions for analysis of covariance, including repeated measures designs. *Proceedings of the SAS Users Group International*, 1994, **19**: 1045-1049.
- Wineman, N. M., Durand, E. J., and R. P. Steiner. A comparative analysis of coping behaviors in persons with multiple sclerosis or a spinal cord injury. *Research in Nursing and Health* , 1994, **17**: 185-194.
- Green, A., Schweda-Nicholson, N., Vaid, J., White, N., and R. Steiner. Lateralization in childhood and adolescent bilingual interpreters and matched bilingual and monolingual controls for verbal tasks: An integrated recapitulation. *Bridging the Gap: Empirical Research on Interpretation*, Ed. by Lambert, S. and Moser-Mercer, B., John Benjamins Publishing Co., Amsterdam, The Netherlands, 1994, 331-355.
- Brenner, F. J., Brenner, E. K., Brenner, P. E. and R. P. Steiner. Evaluation procedures to estimate biomass on surface coal mine lands reclaimed under the Surface Mining Control and Reclamation Act of 1977. *Environmental Management* , 1994, **18**(2): 307-315.
- Steiner, R. P. Statistical and Theoretical Aspects of Diversity Indices. *Biological Diversity: Problems and Challenges*, Ed. by S.K. Majumdar, F.J. Brenner, J.E. Lovich, E.W. Miller and J.F. Schalles. The Pennsylvania Academy of Science, 1993, pp. 50-63.

- Steiner, R., Green, A., and N. White. Clarification of the dual task dilemma: lateralized effect perfunctory and purposeful tasks in left- and right-handed males. *Brain and Cognition*., 1992, **19**:148-171.
- Green, A., Schweda-Nicholson, N., Vaid, J., White, N., and R. Steiner . Hemispheric involvement in shadowing vs. interpretation/paraphrasing: A time-sharing study of simultaneous interpreters with matched bilingual and monolingual controls. *Brain and Language*.,1990, **39**:107-133.
- Brenner, F.J. and R.P. Steiner. Some physical, chemical, and biological characteristics of open water habitats. *Wetlands Ecology and Conservation: Emphasis in Pennsylvania*, Ed. by S.K. Majumdar, R. Brooks, F.J. Brenner, and R.W. Tiner, Jr., 1989, The Pennsylvania Academy of Science: 93-102.
- Steiner, R.P. Using the SAS System to Assess Multivariate Normality. *Conference*, 1989, **14**: 1291-1293.
- Brenner, F.J., R.P. Steiner, J.J. Mondok and R.J. McDonald. Non-point source pollution: a model watershed approach. *Water Resources in Pennsylvania: Availability, Quality and Management*, Ed. by S.K. Majumdar, E.W. Miller, and R.R. Parizek, 1989, The Pennsylvania Academy of Science.
- Brenner, F. J. and R.P. Steiner. Alternative reclamation strategies for mined lands. *Environmental Consequences of Energy Production: Problems and Prospects*, Ed. by S.K. Majumdar, F.J. Brenner and E.W. Miller, 1987, The Pennsylvania Academy of Science:115-130.
- Brenner, F.J., R.P. Steiner and J.J. Mondok. Use of water quality models to predict non-point source pollution parameters in an agricultural watershed. *Proceedings of the Symposium on Monitoring, Modeling, and Mediating Water Quality*, 1987, (AWRA TPS-87-2):295-301.
- Verbrugge, L. M. and R.P. Steiner. Prescribing drugs to men and women. *Health Psychology*, 1985, **4**(1):79-98.
- Steiner, R.P., F.J. Brenner, and C.M. Steiner. Time series modeling of some eutrophication dynamics of a manmade lake in western Pennsylvania. *Lake and Reservoir Management-Practical Applications*, 1985, 191-195.
- Verbrugge, L.M. and R.P. Steiner. Another look at physicians' treatment of men and women with common complaints, *Sex Roles*, 1984, **11** (11/12):1091-1109.
- Verbrugge, L.M. and R.P. Steiner. Physician treatment of men and women patients: Sex bias or appropriate care. *Medical Care*, June, 1981, **19**:609-632.

Brenner, F.J., C.M. Steiner, R.P. Steiner, and P. Molter. Effect of differential cropping on reproduction and physiological parameters in three populations of CF-1 mice. *Proceedings of the Pennsylvania Academy of Science*, 1981, **55**:134-136.

Professional Presentations:

Bono, K., Adamczyk, M., Rubin, M., Jones, K., Ritzman, T., Schrader, W., Fleissner, P., Steiner, R., and M. Morscher. Prospective analysis of computer navigated in situ fixation of slipped capital femoral epiphysis. Mid-America Orthopaedics Association Annual Meeting, April 21-25, 2010.

Bries, A., Jacquet, R., Lowder, E., McBurney, D., Landis, W., Adamczyk, M., Steiner, R., Askew, M., Horton, W., Horne, W., Morscher, M. and D. Weiner. A Study in Vivo of the Effects of a Static Compressive Load on the Proximal Tibial Physis in Rabbits (Poster ORS2010-0548). Orthopaedic Research Society, 56th Annual Meeting, New Orleans, LA, March 6-9, 2010.

Bono, K.M., Rubin, M., Jones, K., Riley, P., Ritzman, T., Schrader, W., Fleissner, P., Steiner, R., Morscher, M. and M. Adamczyk. Orthopaedic Research and Education Foundation Greater Cleveland Area Resident Research Competition and Symposium, Akron Children's Hospital, Akron, OH, April 17, 2009.

Bender, E.T., Sullivan, T., Ehrman, J.D., Stojilovic, Buczynski, B.W., N., , Kory, M.M., Steiner, R.P. and R.D. Ramsier. Adhesion of Microbes to Zirconium Alloy Surfaces: Surface Spectroscopic Identification. Society for Biomaterials Conference, Pittsburgh, PA, April, 2006.

Baughman, K.R., Bourguet, C.C., Ober, S.K., Steiner, R.P., and H.D. Shapiro. Insomnia and daytime sleepiness: risk attributable to RLS, BMI, smoking, and alcohol in a VA outpatient population. Associated Professional Sleep Societies Meeting, Toronto, Canada, June 2005.

Bourguet, C.C., Steiner, R.P., Ober, S.K., Baughman, K.R. and H.D. Shapiro. Insomnia and daytime sleepiness: risk attributable to restless legs syndrome, BMI, smoking, and alcohol among VA outpatients. Society for Epidemiologic Research Meeting, Toronto, Canada, June 2005.

Ober, S.K., Bourguet, C.C., Baughman, K.R., Steiner, R.P. and H.D. Shapiro. Prevalence and outcomes of restless legs syndrome among veterans. Associated Professional Sleep Societies Meeting, Philadelphia, PA, June 2004.

- Bourguet, C.C., Ober, S.K., Baughman, K.R., Steiner, R.P. and H.D. Shapiro. Prevalence and outcomes of restless legs syndrome among veterans. Peer Reviewed Medical Research Program Military Health Research Forum (Investigator's Meeting), San Juan, Puerto Rico, April 2004.
- Baughman, K., Panzner, M., Ober, S., Bourguet, C. and R. Steiner. Prevalence and outcomes of restless legs syndrome among patients at VA primary care clinics. Research and Education Forum of the Ohio Academy of Family Physicians, Columbus, OH, April 2003.
- Fisher, E. M., Kerr, M. E., Hoffman, L. and R. P. Steiner. Indicators of Gut Oxygenation: A Comparison of Gastric and Rectal CO₂, 25th Annual Midwest Nursing Research Society, Cleveland, OH, March 2001.
- Dowd, T., Kolcaba, K., and R. Steiner. The bladder function questionnaire instrumentation study. Robinson Memorial Hospital, April 1999. (Poster)
- Fisher, E. M., Kerr, M. E., Hoffman, L. and R. P. Steiner. Indicators of gut dysoxia: a comparison of gastric methods in cardiac surgical patients. International State of the Science Congress, Sigma Theta Tau International, Washington, DC, September 15-19, 1999.
- Fisher, E. M., Kerr, M. E., Hoffman, L., Davidson, L., Steiner, R., Baranek, R. and R. Schlichtig. Indicators of gut dysoxia: a comparison of sites & methods in cardiac surgical patients. 22nd Annual Research Conference of the Midwest Nursing Research Society, Columbus, OH, March 29, 1998. (Poster)
- Steiner, R., Midha, C., and A. Dey. Development of Statistical Science in the United States: A Historical Account. Tenth Anniversary Conference on the History of Mathematics, April 4-5, 1997, Inventure Place, Akron, OH
- Wineman, N. M. and R. P. Steiner. Emotional well-being in people with chronic disabilities: A personal look at the process of conducting longitudinal research. INVITED PAPER. Sigma Theta Tau International, 17th Annual Research Symposium, April 12, 1996, Akron, OH.
- Wineman, N. M. and R. P. Steiner. Emotional well-being in people with chronic disabilities: A longitudinal analysis. Midwest Nursing Research Society, 20th Annual Research Conference, March 30 - April 2, 1996
- Steiner, R. P. An Introduction to Power Analysis and Sample Size Determination. Lunchtime Research Seminar, College of Nursing, The University of Akron, March 11, 1996.
- Steiner, R. P. and N. M. Wineman. An Introduction to Databases with Applications for Nursing Research. Lunchtime Research Seminar, College of Nursing, The University of Akron, April 17, 1995.

- Steiner, R. P. and N. M. Wineman. Using SAS[®] software to check assumptions for analysis of covariance, including repeated measures designs. SAS Users Group International, 19th Annual Conference, April 10-13, 1994, Dallas, TX.
- Brenner, F. J., Steiner, R. P. and J. Mondok. Ground water -surface water interaction in an agricultural watershed. Second International Conference on Ground water Ecology, March 27-30, 1994, Atlanta, GA.
- Steiner, R. P. and N. M. Wineman. Role of the Biostatistical Consultant and the Research Team Approach. Lunchtime Research Seminar, College of Nursing, The University of Akron, November 14, 1994.
- Green, A., Steiner, R., & White, N. A follow-up dual-task investigation of lateralized effects in right- and left-handed males. International Neuropsychological Society Annual Meeting, January, 1994, Cincinnati, OH.
- Green, A., White, N., and R. Steiner. Age-related declines, aptitude and concurrent task performance. The Annual Conference of Theoretical and Experimental Neuropsychology, Neuropsychologie experimentale et theorique (TENNET), May, 1992, Montreal, Canada.
- White, N., Green, A., and R. Steiner. A cross-sectional study of lateralization and divided attention. The Annual Conference of Theoretical and Experimental Neuropsychology, Neuropsychologie experimentale et theorique (TENNET), May, 1991, Montreal, Canada. Published Abstract: White, N., Green, A., and R. Steiner. Brain and Language, 1991, Academic Press, Inc.
- Green, A., White, N., and Steiner, R. The effect of task complexity on behavioral asymmetries for verbal and spatial processing: The concurrent activities paradigm revisited. International Neuropsychological Society Annual Meeting, February, 1990, Orlando, FL.
- Steiner, R.P. Using the SAS System to assess multivariate normality. SAS Users Group International, 14th Annual Conference, April 8-12, 1989, San Francisco, CA.
- Steiner, R.P., F.J. Brenner and C.M. Steiner. Time series models for some physical and chemical dynamics of a man-made lake. Pennsylvania Academy of Science and Piedmont Aquatic Scientists Association, 65th Annual Conference, April 7-9, 1989, Mt. Pocono, PA.
- Shaw, T. and R. Steiner. Sexual dimorphism in the skeleton of wood thrush (*Hylocichla mustelina*). Pennsylvania Academy of Science and Piedmont Aquatic Scientists Association, 65th Annual Conference, April 7-9, 1989, Mt. Pocono, PA.

- Brenner, F.J., R.P. Steiner and J.J. Mondok. Use of water quality models to predict non-point source pollution parameters in an agricultural watershed. American Water Resources Association Symposium on Monitoring, Modeling, and Mediating Water Quality, May 17-20, 1987, Syracuse, NY.
- Steiner, R.P., F.J. Brenner, and C.M. Steiner. Two-stage regression models for predicting components of water quality on surface coal mines. Pennsylvania Academy of Science (PAS) Meeting, April 18-20, 1986, Seven Springs, PA.
- Steiner, R.P. and R.A. Wolfe. A counting process approach to the Cox proportional hazards regression model with covariate errors. ENAR Spring Meetings, March 24-27, 1985, Raleigh, NC.
- Wolfe, R.A., B.P. Perry, E.B. Devol and R.P. Steiner. Approximations for Cox survival models. INVITED PAPER. ENAR Spring Meetings, March 24-27, 1985, Raleigh, NC.
- Steiner, R.P. A counting process approach to the Cox proportional hazards regression model with covariate errors. Biostatistics Seminar, University of Michigan, November 29, 1984, Ann Arbor, MI.
- Steiner, Richard P., F.J. Brenner, and C.M. Steiner. Time series modeling of some eutrophication dynamics of a manmade lake in western Pennsylvania. International Symposium on Lake & Watershed Management: Local Involvement, North American Lake Management Society, October 16-19, 1984, McAfee, NJ.
- Verbrugge, L.M. and R.P. Steiner. Prescribing drugs to men and women. The American Public Health Association. 111th Annual Meeting, November 17, 1983, Dallas, TX.
- Verbrugge, L.M. and Richard P. Steiner. Another look at physicians' treatment of men and women with common complaints. The Society for the Study of Social Problems. 33rd Annual Meeting, August 28, 1983, Detroit, MI.
- Verbrugge, L.M. and Richard P. Steiner. Differences in physician treatment of men and women--sex bias or appropriate care. American Public Health Association. 108th Annual Meeting, October 19-23, 1980, Detroit, MI.
- Steiner, R.P. Some effects of a controlled spring burn on the vertebrate populations of the Blazing Star Prairie, Jennings Nature Reserve, Butler County, PA. Pennsylvania Academy of Science. 56th Annual Meeting, April, 1980, Seven Springs, PA.

Fellowships and Grants:

Funding agency: National Institute of Nursing Research/NIH FUNDED
01/01/2006-12/31/2008, \$226,800

Title: *Nursing Inquiry: Generation of Gut CO₂ Under Dysoxic Conditions in Rats.*

Each year 750,000 cases of multiple organ dysfunction syndrome (MODS) are diagnosed in critically ill patients in the U. S. As a major life threatening complication of trauma and critical illness, MODS is a strong predictor of death. A basic premise for organ failure is an inadequate supply to, extraction by, or utilization of oxygen by the tissues. Under hypoxic conditions, gut PCO₂ reflects inadequate perfusion in relation to cellular demands. This study will examine regional changes in oxygenation under control and dysoxic conditions at three sites in a rat model. Primary statistical methods for evaluating site-specific differences in CO₂ generation and the buffering of metabolic acids include repeated measures ANOVA and multiple regression. Clustering methods will be used to examine spatial patterns and temporal evolution of changes in intracellular pH in whole tissue.

Role: Biostatistician. Principal Investigator: E. Fisher.

Funding agency: Summit County Combined Health District FUNDED
11/01/2006-06/30/2007, \$16,350

Title: *Access to Care Program: Development of the ROI and Measure of Economic Impact.*

This project will organize and analyze data collected by Access to Care on client characteristics and client services provided. The purpose is to assess the return on community investment. Additionally, assessment of client satisfaction and provider satisfaction will be addressed. Plans will be developed for methodology to assess the economic impact of the Access to Care program using return on community investment (ROI) and cost/benefit methodologies.

Role: Co-Principal Investigator with E. Erickson

Funding agency: Sigma Theta Tau, Delta Omega Chapter FUNDED
03/01/2005-06/30/2006, \$500

Title: *Comparison of Healing Touch, Coaching, and a Wait-List Group on Comfort and Stress in Younger College Students.*

College students typically encounter numerous stressors that may include academic requirements, relationship issues, peer pressure, finances, concurrent employment and housing concerns. The primary care providers in college health centers are nurse practitioners who are seeking effective, front-line, non-invasive interventions for students' stress based on empirical evidence. The purpose of this study is to measure the effects of two nursing interventions (three sessions each of either healing touch or coaching) on students' comfort and stress compared to a wait-listed group.

Role: Co-Principal Investigator with D. Fashinpauer, T. Dowd, and K. Kolcaba

Funding agency: National Institute of Biomedical Imaging and Bioengineering/NIH FUNDED 04/01/2004-03/31/2006, \$220,500

Title: *Biocompatibility of Zirconium Alloys.*

Zirconium alloys are promising substances for use in bioimplants, such as artificial joints, because of their mechanical strength and resistance to chemical erosion. An important question is how well zirconium alloys resist bacterial adhesion. To be useful as bioimplants, zirconium alloys are needed to which commonly encountered bacteria do not adhere well. The purpose of this study is to combine surface analytical techniques with biological assay and statistical methodology to determine the propensity of bacteriological, fungal, and endotoxin adhesion to zirconium surfaces. The effects of composition and surface preparation of zirconium alloys, type of biological entity, and incubation conditions will be studied.

Role: Co-Principal Investigator with R. Ramsier and M. Kory

Funding agency: Department of Defense, US Army Medical Research and Materiel Command FUNDED 02/01/2003-01/31/2006, \$636,641

Title: *The Prevalence and Outcomes of Restless Leg Syndrome among Veterans.*

The purpose of this study is to examine components of a proposed model which links restless leg syndrome to insomnia, and insomnia to psychic distress and to increased health care utilization. The study population is Veterans Administration outpatients in northern Ohio.

Role: Co-Principal Investigator with C. Bourguet, S. Ober, M. Panzner, and H. Shapiro.

Funding agency: Ohio Board of Regents Research Challenge Grant FUNDED 07/01/2002-06/30/2003, \$15,000.

Title: *The Prevalence and Outcomes of Restless Legs Syndrome.*

Determine the prevalence of Restless Legs Syndrome in a geographically defined population. Evaluate risk factors for RLS in this population.

Role: Co-Investigator with C. Bourguet.

Funding agency: The University of Akron, Faculty Research Grant FUNDED: March 2001 - Feb. 2002, \$3,495.

Title: *Gut Dysoxia: Changes in Regional Measures of Gut Oxygenation During Ischemic-Reperfusion.*

Role: Co-Principal Investigator with E. Fisher

Funding agency: Ohio Kidney Foundation FUNDED: 08/01/99-05/30/00, \$10,000.

Title: *The Addition of Coaching to Cognitive Strategies: Interventions for Persons with Urinary Incontinence.*

The purpose of the study was to determine the relative effectiveness of standard information, cognitive strategies (CS), and coaching for persons experiencing urinary incontinence (UI). It was hypothesized that persons receiving coaching along with audiotaped CS and information would have markedly more comfort, improved bladder function, and enhanced perception of health than persons receiving CS and information only, or information only.

Role: Co-Principal Investigator with K. Kolcaba and T. Dowd

Funding agency: American Association of Critical Care Nurses Research Grant FUNDED: 01/15/98-12/31/98, \$6,000.

Title: *Indicators of Gut Dysoxia: A Comparison Of Sites and Methods in Cardiac Surgical Patients.*

The purpose of the study was to determine if changes in regional gut dysoxia indicators (PtiCO₂ and pHi) occur earlier than changes in systemic indicators of oxygenation, and to determine if there are differences among sites (stomach and rectum) and methods (gastric saline in a tonometer, gastric juice aspirate, rectal CO₂ electrode) used to detect regional gut dysoxia within the GI tract of cardiac bypass patients.

Role: Statistician, with E. Fisher, Principal Investigator

Funding agency: University of Akron, Faculty Research Grant FUNDED: Fall, 1998, \$3,475.

Title: *Correlations Among Measures of Bladder Function and Impact of Urinary Incontinence.*

The purpose of the study was to identify factors related to bladder function and urinary incontinence and to determine the nature of these relationships.

Role: Co-Principal Investigator with K. Kolcaba and T. Dowd