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Beyond the Classroom: 10 Creighton Professors You Should Know

The faculty at Creighton University is well known for a commitment to excellence in research, scholarship and other professional pursuits. As called by our Mission, Creighton faculty members are committed to “*conducting research to enhance teaching, contributing to the betterment of society, and to discovering new knowledge*”. What follows is a brief “Who’s Who” guide to 10 Creighton professors who have not only answered that call, but whose efforts outside of the classroom have also gained nationwide attention.

1) **Natalie Ross Adkins, Ph.D.** *Assistant Professor of Marketing*

While Dr. Natalie Adkins' students continue to receive national recognition for their work as part of her Advertising and Promotions class, her research on consumer behavior of low literate adults has also gained considerable attention across multiple disciplines. "These two may appear unrelated," said Adkins, "but in reality, they both reflect a commitment to the value of humanity, the process of learning, and consumer empowerment."

Growing up in a rural community in West Virginia, Adkins feels it is no coincidence that she became interested in this research topic, "Almost half of all consumers read below a sixth grade level, yet we know little about how they get their needs met in the marketplace. I look at the intersection of literacy skills and consumption activities and identify coping strategies that low literate consumers employ. Low literate consumers who can challenge the stigma of low literacy and employ a range of coping skills in the marketplace not only get their needs met, but also feel empowered."

Adkins finds it ironic that the research she is gaining national attention for she originally shied away from as “too risky”. Today, Adkins' work has been widely covered, including publication in the *Journal of Consumer Research*, and is under consideration for the prestigious Robert Ferber Award.

2) **Devendra K. Agrawal, M.Sc. (Chemistry), Ph.D. (Biochemistry), Ph.D. (Medical Sciences), MBA, MS (ITM), FAAAAI, FAHA** *Professor of Biomedical Sciences, Internal Medicine, and Medical Microbiology and Immunology*

Since joining Creighton in 1985, Dr. Agrawal has received national attention for his research to define the role of the body's immune system in the development of bronchial asthma and occlusive vascular diseases. The long-term goal of these studies is to better understand the underlying cellular and molecular mechanisms, so that a more precise and cost-effective treatment can be developed. These projects are funded by two R01 grants from the National Institutes of Health (NIH).

More recently, Dr. Agrawal has expanded his research to discover novel genes involved in the pathogenesis of breast cancer. His research examining the role of the surviving gene in breast cancer was recently funded by the State of Nebraska Cancer and Smoking-related Disease Program. Also, in collaboration with Edibaldo Silva, M.D., Ph.D., FACS, Richard F. Murphy, Ph.D. and Mary S. Davey, M.D. at Creighton, Dr. Agrawal is aggressively working to examine the role of the p53 gene in breast cancer.

At the national level, Dr. Agrawal serves as a regular member of the VA Merit Review (Respiration) Committee and as an ad-hoc member in several NIH study sections. Dr. Agrawal also recently served on two research panels for the Department of Defense and was appointed as a regular reviewer in the Lung, Cellular and Molecular Immunobiology (LCMI) study section of the NIH for four years.

A regular reviewer for many major journals, Dr. Agrawal serves as an Associate Editor for the *Journal of Immunology* and the *Canadian Journal of Physiology and Pharmacology*, and was recently elected to the Editorial Board of the *Journal of Allergy and Clinical Immunology*. Dr. Agrawal has published more than 150 full-length, original articles in peer-reviewed journals, 182 abstracts, and many chapters in books. He is currently mentoring five postdoctoral fellows, nine Ph.D. students and three M.S. students.

3) Lei-da Chen, Ph.D.

Assistant Professor of Information Systems & Technology

It's no secret that Dr. Lei-da Chen is a busy man. In 2001, he was named as one of the most published researchers in the field of e-commerce. His research and consulting interests include electronic commerce, wireless and mobile commerce, Web-based systems development, data warehousing and mining, and diffusion of information technology in organizations. Dr. Chen has published over 40 professional articles in refereed journals and national and international conference proceedings.

Recently, Dr. Chen published his first book, *Mobile Commerce Application Development*, in collaboration with Dr. Gordon Skelton, a professor at the University of Mississippi. The book is based on material Dr. Chen has taught at Creighton over the past two years. In relation to this book, Dr. Chen is conducting research in collaboration with First Data Resources (FDR) on the adoption of mobile payment systems in the U.S. He also serves on the Board of a Minneapolis-based company, Code X, which develops applications for mobile devices.

Dr. Chen is also conducting research in nomadic computing (e.g. working offsite via PDAs, pocket PCs and cell phones) with Dr. Cynthia Corritore. Their research focuses on how companies can cultivate a culture in which employees can work effectively using nomadic computing technology.

4) Isabelle Cherney, Ph.D.

Assistant Professor and Assistant Director of the Honors Program, Psychology

As an undergrad, Cherney became interested in children's rights' issues following the U.N. Convention on the Rights of the Child (U.N. General Assembly, 1989).

Most recently, Cherney received an award from the American Psychological Foundation and the Council of Undergraduate Research, which provided fellowships for two outstanding students to conduct research this past summer. The project, "Children's and Adults' Perceptions of Children's Rights," aims to combine two previous lines of Cherney's research (one interviewing adults and the other interviewing children) to discover the link between the child's and the adult's perception of children's rights.

Because of the broad scope of her research on this subject – which began in 1995 with interviewing subjects in Europe and has since expanded to include North America and Malaysia – Cherney has also been asked to serve as a consultant for a British research group studying children's rights issues.

In 2005, Cherney was also awarded a grant from Creighton Arts and Sciences to investigate the question of when adults consider a child competent to make a decision within a moral dilemma. In addition, she was awarded a Psi Chi Summer Research Grant to develop a new method of measuring competency in adolescence. Only six of these grants are awarded to researchers nationwide and Cherney has been asked to publish the results of her study in the *Journal of Social Issues*.

5) Kimberly A. Galt, Pharm.D., FASHP

Associate Dean for Research, Professor of Pharmacy Practice, Director of the Creighton University Health Services Research Program (CHRP)

Since 1983, Dr. Kimberly Galt has been both a principal investigator and collaborator on grants, awards and contracts approximating \$2.5 million. In her work, she has emphasized the integration of computing technologies into research, teaching and practice to improve learning and enhance patient safety.

In a recent study, funded by the Agency for Health Research and Quality (AHRQ), Dr. Galt assessed the use of personal digital assistants (PDAs) and their impact on medication safety when physicians prescribe. She also chaired a University-wide patient safety task force which, through the collaboration of 17 faculty members across the campus and health sciences center, developed the most extensive inter-professional patient safety course for the health-related professions in the nation.

In recognition of her accomplishments, Dr. Galt has been appointed to the Health Information Technology National Resource Center Steering Committee for the AHRQ, a federal agency within the Department of Health and Human Services with a mission of translating research to practice to improve the quality of healthcare for people. She was also appointed to the editorial board of the *Journal of Patient Safety*, the official publication of the National Patient Safety Foundation, and actively serves on several federal grant review panels for Health Information Technology.

6) Lee Morrow, M.D.

Assistant Professor of Medicine, Pulmonary-Critical Care Medicine, Dept. of Internal Medicine

When not providing life-saving care to patients, Dr. Lee Morrow is also committed to saving lives through his clinical research, which focuses on improving quality of care and reducing complications in the ICU.

Dr. Morrow's particular interest is the study of ventilator associated pneumonia (VAP), an infection of the lungs in patients requiring prolonged life support. He is currently enrolling participants in a clinical trial in which living "friendly" bacteria (the bug that turns milk into yogurt) are administered to ICU patients – the purpose being to prevent the harmful bacteria that cause VAP from colonizing in these patients and causing VAP. The preliminary results of this study, which have been very promising, led to a five-year research grant award from the National Institutes of Health. Dr. Morrow recently presented the results at the American Thoracic Society's international meeting in San Diego and was invited to present at the American College of Chest Physician's (ACCP) international meeting in Montreal.

Dr. Morrow is also a pioneer in the field of geriatric pulmonary medicine, through a grant from the ACCP and the Association of Subspecialty Professors. He also organized a twenty-hospital epidemiology study of predictors of VAP outcomes, which led to several publications and being named one of ACCP's ten young investigators for 2005.

7) Michael G. Nichols, Ph.D.

Assistant Professor, Dept. of Physics

Professor Mike Nichols is involved in a field of research so innovative that it has its own buzzword – “Biophotonics”. Research done by Nichols' group leads to novel applications of optoelectronics (e.g. light, lasers, optical fibers, mirrors, lenses, cameras and detectors, along with the computers and electronics that make them work) to address problems in biophysics, medicine and biology.

An example of this is the “Optical Stretcher”, which Nichols' research group built in collaboration with Dr. Richard Hallworth, a professor in Biomedical Sciences (BMS). “To our knowledge, there are only two of these devices in the United States – both at Creighton,” Nichols explained. “We are using our Stretcher in a research project, in collaboration with Dr. Jack Yee (BMS), to measure the elasticity of various types of bone cells to learn how their mechanical properties affect the role that the cell plays in maintaining and remodeling bone.”

Recently, a grant through the NSF-EPSCOR program has allowed Nichols, Richard Hallworth (BMS), and Hamid Sharif (Department of Computer and Electronic Engineering, UNO) to establish the Nebraska Center for Cell Biology (NCCB) at Creighton University. The facility is open to all researchers in the state of Nebraska and is centered on a state-of-the-art, fully-automated and computerized multiphoton laser scanning microscope.

“There are a huge number of important scientific questions that can be addressed with this instrument, such as studying the growth and development of neurons during development, or monitoring the progress of cancer therapy by measuring biochemical changes at the cellular level,” said Nichols. “When we are finished developing this instrument, anyone in the state (with permission) will be able to access and control every function of the microscope through a standard web browser.”

8) Joan Norris, Ph.D., RN, FAAN

Professor and Associate Dean for Research and Evaluation, School of Nursing

Over the length of her career, Dr. Joan Norris has conducted research that has earned funding from such prestigious sources as the Department of Health & Human Services (DHHS) Division of Nursing, the Robert Wood Johnson Foundation, and the National Institutes of Health – Nursing Research Center. She has also served on ad hoc review panels for the NIH, on the editorial advisory board of *Nursing Diagnosis* and as a reviewer for the *Western Journal of Nursing Research*. Based on her research and scholarly publications, Norris has also been inducted as a Fellow in the American Academy of Nursing.

According to Norris, some of her most interesting work has been studying the adjustment process of patients who had recently experienced a serious alteration in their physical appearance or functioning. This research study was supported by a three-year grant from the NIH Center for Nursing Research. The grounded theory of re-imaging that resulted from the study was published in *Advances in Nursing Science*, and at national and international nursing research conferences. A related article addressing the clinical implications of the theory was published in *Rehabilitation Nursing*. The theory was used as an example of theory building research in a nursing theory text and has been presented by graduate nursing students in classes across the country.

More recently, Norris participated in a pilot study of the family adaptation process to hereditary cancer risk, in collaboration with Associate Professors of Nursing, Sue Tinley and Stephanie Stockard Spelic, and is awaiting review of a grant proposal by NINR to continue this study over the next three years.

9) Juliane Soukup, Ph.D.

Clare Boothe Luce Assistant Professor of Chemistry

Beyond the classroom, Dr. Juliane Soukup is involved in research that focuses on understanding the metabolic control of microorganisms that may lead to novel antibiotic interventions. Dr. Soukup and her undergraduate research students are investigating the recently discovered RNA elements termed riboswitches that control the metabolic state of microorganisms (such as *Bacillus anthrax*, a pertinent bioterror threat) by directly binding metabolites and regulating gene expression of essential metabolic pathways. They have also designed a technique to study the interactions between the catalytic riboswitch and its metabolite, with the goal of being able to design non-natural metabolites as potential antibiotics. Dr. Soukup was invited to present these results at the regional National Institutes of Health INBRE (Idea Networks for Biomedical Research Excellence) meeting, a granting program which funds this research.

Dr. Soukup also devotes a great deal of time to female science students as the Clare Boothe Luce Professor for Women in Science. In this role, she chairs a committee that chooses the recipients of undergraduate full-ride scholarships for women interested in research careers. She has also been involved with the Nebraska Expanding Your Horizons conference, which works to interest junior high school girls in the areas of science and math.

10) Mary Helen Stefaniak, M.F.A.

Associate Professor of English and Director of Creative Writing

It has been a busy few years for Mary Helen Stefaniak. When not in the classroom, she's been traveling the country talking to book clubs, visiting campuses, and reading from her

critically acclaimed novel, *The Turk and My Mother*, which was released in paperback this year. The hard cover edition, published by W.W. Norton in 2004, received the 2005 John Gardner Fiction Book Award from Binghamton University, and was recognized by the Wisconsin Library Association for Outstanding Literary Achievement.

A graduate of the prestigious Iowa Writers Workshop and a thirteen-year veteran of the Iowa Summer Writing Festival faculty, Stefaniak is an award-winning writer of fiction and essays. Her collection of short fiction, *Self Storage and Other Stories* (New Rivers Press), was selected by the Wisconsin Library Association to receive the 1998 Banta Award for Literary Excellence, and her novella, "The Turk and My Mother" (*EPOCH*, Fall 2000) was short listed for the O. Henry Prize.

Stefaniak's work has appeared in many publications, including *The Iowa Review*, *EPOCH*, *Short Story*, *The Yale Review*, *AGNI*, and *The Antioch Review*, and in several anthologies, including *New Stories from the South: The Year's Best 2000* (Algonquin Books), *In the Middle of the Middle West: An Anthology of Creative Non-Fiction* (Indiana University Press, 2003), and *A Different Plain* (University of Nebraska Press, 2004). She has also served as a commentator on Iowa Public Radio and a contributing editor of *The Iowa Review*.

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