

The following reflects faculty retention efforts of the UNC system over the past 22 months. Faculty often do not provide the University with the opportunity to counteroffer. In some cases the move is for family reasons or related to the desire to change careers. For a number of faculty, the outside offer they received is too attractive to refuse.

Analysis indicates that pre-emptive offers are much more efficient than counter-offers.

- In the last 22 months 262 non-medical faculty and 61 medical faculty received outside offers. Of those who received an outside offer UNC retained 82, or 25%.
- The average salary offered by outside institutions is \$23,000 higher for non-medical faculty and \$106,000 higher for medical faculty.
- Of the 241 faculty who left UNC, 71 had contract and grants valuing over \$68 million.
- A sampling of disciplines affected by non-medical faculty attrition include: Nursing, Business, Psychology, Biology, English, Economics, Chemistry, and Religious Studies.
- UNC system non-medical faculty are leaving for positions at Duke, Clemson, University of Michigan, Indiana University, University of Connecticut, Cornell, Kansas State, Wake Forest, Temple, Texas A&M, Washington University, and Boston College to name only a few.
- Average cost¹ to retain a non-medical faculty member by *counter-offer* is \$166,000, but average cost avoided² is \$917,000.
- Average cost to retain a medical faculty member by *counter-offer* is \$631,000, but average cost avoided is over \$3 million.
- UNC's faculty recruitment and retention fund provided an average \$15,500 to 53 counteroffers. Thirty-three, or 62%, of these faculty were successfully retained.

An alternative, more cost effective strategy is to provide faculty with *pre-emptive* offers.

- On average, pre-emptive offers avoid \$130,000 in cost per non-medical faculty member and over \$435,000 per medical faculty member.
- Pre-emptive offers have thwarted faculty attrition to institutions like Harvard, Emory, James Madison, Juliard, MIT, Columbia, Duke, University of Paris, Penn State, Auburn, and Vanderbilt.
- UNC's faculty recruitment and retention fund provided on average an extra \$11,000 to 43 pre-emptive offers.

¹ Average Costs include salary increases, additional benefits, and/or incentives (research funds, equipment, etc.).

² Average costs avoided include contracts and grants retained and replacement costs avoided (search costs, etc.).



Dr. Derek Alderman to the University of Tennessee (Department of Geography)

Dr. Alderman was a prolific researcher and a dynamic teacher, and has been widely recognized for both. He has received numerous teaching awards, including the UNC Board of Governors Award for Excellence in Teaching in 2009. His research is widely cited and has been highlighted by Reuters, CNN, and the BBC, to name a few. He received the Meredith F. Burrill Award from the Association of American Geographers in 2011 which honors work of exceptional merit and quality that lies at the intersection of basic research in geography and practical applications or policy implications, and the Urban Communication Foundation Journal Article Award in 2010.

Dr. David Cistola: to University of North Texas Health Science Center (College of Allied Health, Brody School of Medicine)

Dr. Cistola served as Associate Dean for Research and Professor of Clinical Laboratory Science in the College of Allied Health and held a joint faculty appointment in the Brody School of Medicine. He was the founder and Principal Investigator of ECU-based Operation Re-entry North Carolina (ORNC), a multi-million dollar research/service program funded by the US Department of Defense to address the concerns of wounded warriors, veterans and their families. He brought the most advanced “blast simulator” in the world to ECU, and was an expert at building teams of researchers and service providers across departments and colleges. Also, he was head of a research laboratory that invented a new diagnostic method for detecting early diabetes and cardiovascular disease, resulting in a US non-provisional patent filing by ECU.

Dr. Matt Schrenk: to Michigan State University (Biology)

Dr. Schrenk is engaged in profoundly important basic research that is reshaping our view of the biosphere through discoveries concerning microbes that live miles under the surface of the earth and the bottom of the sea, with important implications for our understanding of the origin of life and its potential distribution beyond our planet. Not surprisingly, his work was of great interest to NASA and other agencies that funded his laboratory generously. In addition to very successful mentoring of research students (one lab alum is now tenure-track at the University of Utah, for example), Dr. Schrenk was also an effective classroom teacher, training future nurses and honors college seminar students with equal aplomb. His appointment as a Sloan Research Fellow, an incredibly prestigious honor that has on previous occasions gone to future Nobel Prize winners, was one of the proudest moments in our department's history.



Dr. Max Daas to Northern Arizona (Biology)

Dr. Daas was recruited into a distinguished professor position and director of the Center for Science Teaching and Learning at Northern Arizona. During his time at ASU, he was successfully funded with over \$1M dollars of external funding including a Fulbright and NSF Science and Mathematics Integration for Literacy Enhancement grant, published extensively in the field of Biology Pedagogy, and was recognized as an outstanding teacher. He also held several statewide leadership positions in science professional organizations.

Dr. Monique Lanoix to St. Paul University, Ottawa (Philosophy)

As a medical ethicist, working on issues of aging, Dr. Lanoix brought valuable expertise to the Department of Philosophy and Religion. Her work had already received funding from Social Sciences and Humanities Research Council of Canada. As an assistant professor, she had already published 7 peer-reviewed articles and 3 book chapters, and numerous book reviews. Her work on brain trauma and care giving was recognized internationally.



Dr. Neal Wagner to MIT Lincoln Laboratories (Management Information Systems)

Dr. Wagner was an Assistant Professor of Management Information Systems in FSU's School of Business and Economics, and was recruited by MIT Lincoln Laboratory to join their Cyber Systems and Technology Group. Dr. Wagner was a unique individual, able to combine leading edge research in a very rigorous and dynamic field with excellence in teaching and passionate care for his students. While at FSU Dr. Wagner's research included working with the US Coast Guard to develop evolutionary artificial intelligence algorithms to enable the Coast Guard to optimize force allocation based on predicted migrant flows.

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Dr. Brian Denton to University of Michigan (Industrial Engineering)

Dr. Denton is someone of outstanding ability and dedication whose work has profound impact on medical decision-making and policy. He develops new fundamental mathematics to optimize complex decisions under uncertainty. He then uses these tools to examine medical decision-making related to the detection, treatment, and prevention of chronic diseases including cancer, diabetes, and heart disease. His work has led to more informed, less costly healthcare with better patient outcomes. His work is heavily supported by the National Science Foundation, Agency for Healthcare Research and Quality, Mayo Clinic and others. Dr. Denton is an also an NSF Career Award recipient, an outstanding classroom teacher and mentor to both undergraduate and graduate students, and he holds 25 patents.

Dr. Nancy Monteiro-Riviere to Kansas State (Clinical Sciences)

Dr. Nancy Monteiro-Riviere was a Full Professor and Professor of Investigative Dermatology and Toxicology in the NCSU Center for Chemical Toxicology Research and Pharmacokinetics. At the time Dr. Monteiro-Riviere left she had published more than 180 publications, holds a US patent, and has been the recipient of \$9.5M in extramural research support. Dr. Monteiro-Riviere's research was on the impact of nanomaterials on health and the environment, and particularly the dermatological impact.

Dr. Jim Riviere to Kansas State (Population Health and Pathology)

Dr. Jim Riviere was a Full Professor and the Burroughs Welcome Fund Distinguished Professor of Pharmacology; and Director, Center for Chemical Toxicology Research and Pharmacokinetics. Dr. Riviere was a prolific and highly effective scientist, with over \$16M in funding as Principal Investigator (PI) by the time he left NC state, and over 430 papers. He has been elected as a member of the National Institutes of Medicine. While we have maintained the center he led, it was significantly weakened by his departure, and many faculty collaborators saw declines in opportunities.

Dr. Orlando J. Rojas to Aalto University, Finland (Chemical Engineering, chair of Biobased Materials)

Dr. Rojas is an outstanding faculty member, internationally renowned for his science and productivity. His skills and value to NCSU have already been recognized by his selection as a member of the inaugural 2012-2013 NC State University Faculty Scholars Program. His research group works on the utilization of renewable biomaterials in novel, high performance applications. Since 2004 he has served as the PI or co-PI on more than 50 proposals, and has been awarded more than \$9.6M in research funding. In the past 18 months alone he has served as the intellectual lead for 7 new projects worth \$2.1M. Since 2004 Dr. Rojas has supervised or co-supervised 28 graduate students, including 24 PhD students. Currently his research group includes 6 postdoctoral associates, 11 PhD students and 3 visiting scientists. He has published more than 170 peer-reviewed publications, and more than 120 of these have come since he joined NC State. His scientific leadership is highlighted by his appointment as a "Finland Distinguished Professor" by the Academy of Finland, and as a Fellow of the American Chemical Society.



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Dr. Luda Diatchenko to McGill University (School of Dentistry)

Dr. Diatchenko is a world-renowned expert in the genetic basis of pain in humans and in the development of personalized medicine approaches. She was a professor in the Regional Center for Neurosensory Disorders in the School of Dentistry at the University of North Carolina at Chapel Hill. Dr. Diatchenko's recent research focuses on determining the cellular and molecular biological mechanisms by which functional genetic variations impact human pain perception and the risk of developing chronic pain. She is a co-founder and Chief Scientific Officer of Algynomics, a company creating novel approaches to the diagnosis and treatment of chronic pain conditions. Previously, she served as Director of Gene Discovery at Attogene, Inc. During that time, Dr. Diatchenko was actively involved in the development of several widely used molecular tools for the analysis of gene expression and regulation. She was recruited by McGill for more than a year and finally accepted a Canada Excellence Research Chair in Human Pain Genetics position and was appointed to the faculty of the departments of anesthesiology, School of Medicine, and to the faculty of School of Dentistry. The Canada Excellence Research Chairs (CERC) award is a highly prestigious award, there are only 20 CERC Chairs has been awarded so far in Canada in a diverse research fields. She was provided with a \$30 million dollar start-up package that included multiple faculty and staff positions to build a program in Clinical Pain Genetics. She will be impossible to replace.

Dr. Jason Lieb to Princeton University (Biology)

Dr. Lieb who was an undergraduate Biology major at UNC, was recruited to UNC as a joint appointment with Biology (CAS) and the Carolina Center for Genome Sciences (CCGS, SOM-CAS) in 2002. While at UNC Dr. Lieb quickly rose through the ranks to become the Beverly W. Long Chapin Distinguished Professor of Biology and in 2010 he became Director of the CCGS. Lieb's research program thrived at UNC, and during this period he published numerous high profile papers that broke new ground in the nascent field of large-scale analysis of genome structure and epigenetic changes associated with development and disease. Epigenetics pertains to the information within our genomes that is not encoded by DNA. To put Dr. Lieb's work in context, defects in epigenetic regulation are thought to be at least as important as changes in our DNA sequence (i.e. mutations) in causing human disease, yet scientists knew almost nothing about it just a few years ago. Dr. Lieb brought significant extramural (NIH) funding to his program and UNC, and he also spear-headed several interdisciplinary proposals with groups at other universities around the world (e.g. the ENCODE project) that put UNC "on the map" in terms of research in Genome Biology. His success, leadership skills, and high-profile research elicited numerous offers from other places that UNC successfully countered, until early in 2013 when he was offered and accepted a Full Professorship at the Lewis-Sigler Institute for Integrative Genomics at Princeton University.



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Dr. Paul Smokowski to Arizona State University (Social Work)

Dr. Smokowski, a tenured full professor, was an exceptionally productive, passionate, and innovative scholar and leader who embodied outstanding interdisciplinary research in the area of youth violence and bullying prevention for which he gained national prominence not only in social work but also in the fields of developmental psychopathology, Latino studies, human development, and family studies. Dr. Smokowski is in the top tier of social work researchers across the country (over \$10M in federally funded research grants), very well published (over 51 peer-reviewed articles) and co-authored the 21st most cited article in the social work field in the past decade, "Bullying in school: An overview of types, effects, family characteristics, and intervention strategies".

Dr. Michael Wu to the Fred Hutchinson Cancer Center (Biostatistics)

Dr. Wu was assistant professor of Biostatistics at the UNC Gillings School of Global Public Health from 2009 until he was recruited in fall 2013 to the Fred Hutchinson Cancer Center at the University of Washington. During his four short years at Carolina, Dr. Wu proved himself as one of the department's most talented junior hires. He quickly established himself as a well-funded, innovative, and influential faculty member with a strong, rising national reputation and significant collaborative research projects in our Epidemiology department and in the School of Medicine. He consistently had 70-90% external funding on grants. Briefly, Dr. Wu was one of the few people nationally with expertise in computational biology and computational statistics, both extremely important areas in genomics and biostatistics. His research interests included statistical genomics, clinical trials, epidemiological study design and analysis, and general biostatistics. He was, in short, a boundary spanner, the only faculty member we had who was expert in both statistical genomics and general biostatistics. Even more, he was able to artfully integrate the two areas, a skill that was vitally needed for both the School of Public Health and the School of Medicine at UNC in research addressing issues of vital importance for North Carolina and the U.S. On top of all these strengths, Dr. Wu was a talented classroom teacher and a skillful mentor to doctoral students. Finally, he was an amazingly good communicator and a terrific collaborator. The Lineberger Comprehensive Cancer Center faculty members were devastated when they learned of his departure. In short, Dr. Wu's profile of expertise, creativity, intellect, collaborative ability and leadership capacity will be extremely challenging, perhaps impossible, to replace.



Dr. Kevin Lowe to the University of Auckland, New Zealand (Management)

Dr. Lowe is widely regarded as an outstanding and versatile teacher. He has received numerous teaching awards and, in 2007, he was UNCG's recipient of the Board of Governors' Teaching Excellence Award. Professor Lowe has also received a Master Teacher award from McGraw-Hill for his work and is a teaching mentor to junior faculty members through his participation in the UNCG Provost's New Faculty Mentoring initiative. His scholarship in the areas of leadership and cross-cultural management is internationally known and frequently cited by scholars across the globe. From *The Leadership Quarterly*, the premier outlet in Dr. Lowe's primary field of research, he has received the "Best Paper of the Year" award on two occasions; to the best of our knowledge, no other scholar has received this recognition more than once. Professor Lowe's service contributions to UNCG, the community, and to his profession are both extensive and substantive.

Dr. David Ribar to the University of Melbourne, Australia (Economics)

Dr. Ribar was a mainstay in the Ph.D. program in Applied Economics since 2006 funding, supervising, co-authoring with and successfully placing several Ph.D. students and serving on the committees of many others. He was an active scholar in both the publication of refereed journal articles and grants. Since 2006 Dr. Ribar generated over \$1.1 million in grants which help support graduate students. He has published 38 articles, 4 book chapters, 5 book reviews, and 11 articles in other publications and reports. He has also been active in service at the School and University level, as well as to his profession, where he serves as co-editor of one journal and associate editor of two other journals. Dr. Ribar was also one of the economists invited to address the National Academy of Sciences earlier this year. The Bryan School of Business and Economics has already lost one faculty member to an Australian University and they are currently courting another faculty member in addition to Dr. Ribar.



Dr. Angela Rogers to Clemson University (Professional Pedagogy and Research)

Dr. Rogers was a collaborative energetic team member with a high level of expertise and background in reading education. She was instrumental in curriculum development in teacher education with a focus on courses that all education majors complete in literacy. Her research interests in literacy partnerships in rural schools and using technology to motivate at-risk readers was especially relevant to the region that UNCP serves.



Dr. Bongkeun Song to Virginia Institute of Marine Science- College of William and Mary (Biology and Marine Biology)

Dr. Song taught courses in microbiology and microbial ecology that are critical for undergraduate and graduate students in biology and marine biology, and he was a dedicated mentor to student researchers. Dr. Song was a prolific researcher in the field of microbial biogeochemistry. He published 44 peer reviewed papers and brought \$3M in extramural funding to UNCW. His work was both basic and applied, and contributed to UNCW's biotechnology initiative.

Dr. Janie Canty-Mitchell to University of Texas Health Science Center (Nursing)

Dr. Canty-Mitchell was a full professor in Nursing, an active scholar and mentor to junior faculty. Dr. Canty-Mitchell was targeted for the role of Associate Dean of Research and Innovation for the CHHS. Dr. Canty-Mitchell was the recipient of several federal, state and private foundation grants to advance diversity in nursing within the rural and underserved populations and communities of SE North Carolina.