The Sky's the Limit:
reaching the heights of research with
Nancy King Reame, RN, PhD

by
Gary
Goldenberg

Struggling scientists the world over will turn green with envy when they read about Nancy King Reame's first foray into the publish-or-perish world of academe.

Flash back to the mid-1970s, when Dr. Reame was studying for a master's degree at Detroit's Wayne State University in advanced maternity nursing. Seeking a subject for a summer project, she decided to do a review of the literature on the genetics of infertility. "Unbeknownst to me," she recalls, "my advisor sent my paper off to *The New England Journal of Medicine,* under the name N. Reame." (In those days, it didn't pay to advertise that you were a woman researcher, with just a bachelor's degree no less.) Remarkably, the paper was accepted and published in the "Medical Progress" section of the journal.

"That was the first academic research paper I wrote in my whole life," says Dr. Reame, who will become the inaugural Mary Dickey Lindsay Professor of Disease Prevention and Health Promotion at Columbia University School of Nursing upon her arrival. "I thought, 'This is easy.'"

Dr. Reame knows full well that research is rarely, if ever, easy. Judging by how much she has accomplished during her career, however, she certainly does make it look that way. Her long list of peer-reviewed papers, particularly her seminal work defining neuroendocrine biomarkers of normal ovulation and of reproductive aging in menopause, is impressive enough. But she is also one of those rare scientists who have successfully ventured far beyond the laboratory, earning plaudits for her national and international efforts as a scientific advisor, women's health advocate, educator, bioethicist, and author.

"Her work is the epitome of translational research, bridging the gap between the bench, the bedside, and national policy," says Dean Mary O'Neil Mundinger.

Dr. Reame followed a most unusual path into science. Like many of her peers, she dreamed of becoming a nurse as a young girl. "I read all those Cherry

Ames student-nurse books," says the researcher, who was born in Canada and raised in Michigan. But after earning an undergraduate degree in nursing from Michigan State University, she decided to see the world first, working as a Pan Am flight attendant. It wasn't long before the airline hit some financial turbulence. To trim its workforce, Pan Am tendered its flight attendants an offer that was all but impossible to refuse: an educational leave with full tuition and benefits. The only stipulation was that they had to work during the busy summer and Christmas travel season.

Mary Dickey Lindsay '45 and Nancy K. Reame, PhD

Dr. Reame used the opportunity to earn her master's, graduating in 1974. Concurrently, she grew interested in reproductive physiology, leading her to enroll in a doctoral program at Wayne State University School of Medicine. It was a timely choice. The field of reproductive science was beginning to blossom, with the first test-tube baby just a few years away.

At Wayne State, she conducted studies of one of the early "mini-pills," or low-dose contraceptives, the first of dozens of investigations into issues that have a direct impact on women's health — a legacy of her roots in nursing. Some of Dr. Reame's recent projects, for example, include studies of: the effects of stress and aging on the human menstrual cycle; the use of black cohosh (an herb) for hot flash relief; the use of a testosterone patch for women's low libido; the relationship between brain aging and menopause; and long-term satisfaction and outcomes after surrogate pregnancy.

Dr. Reame stayed at Wayne State through the 1980s as a member of the nursing faculty. In 1990, she moved to the University of Michigan School of Nursing, where she broadened her research portfolio and served as the Director of the National Center for Infertility Research, one of first two centers funded by Congress to promote women's health.

Along the way, her curriculum vitae grew thick with honors and awards. She was elected a fellow of both the American Academy of Nursing and the American Association of the Advancement of Science and a member of the Institute of Medicine (IOM). For more than a decade, she has served as an advisor to the Women's Health Initiative, a National Institutes of Health (NIH) research program addressing the most common causes of death, disability

and poor quality of life in postmenopausal women. And last year, she was appointed a member of the IOM's Clinical Research Roundtable, the only nurse to be so honored.

Over the years, Dr. Reame has become more and more involved in ethical issues surrounding the brave new world of assisted reproduction, adding a much-needed and much-valued nursing voice to the national conversation.

"We need a bigger dialogue on these issues," she says. "Not long ago, people scoffed at the idea that scientists could transfer embryos from one person to another, because of immunological barriers. But today we have donor eggs and gestational carriers — it's a whole industry now. In the next decade or two, we could conceivably see ovarian transplants, artificial wombs, males carrying babies, animals carrying humans, humans carrying animals. As the science gets better, the sky's the limit. These are just a few of the things we have to figure out. We had better get up to speed on this."

Dr. Reame could well have a third (or is it fourth?) career in publishing. Aside from contributing to numerous professional journals as a writer, editor and reviewer, she has written a chapter on infertility and assisted reproductive technologies for the latest edition of *Our Bodies, Ourselves*, the bestselling women's health compendium.

The latest chapter in Dr. Reame's career brings her to Columbia University School of Nursing, where her plans are as ambitious and varied as ever. In addition to continuing her clinical trials related to menopause and infertility, she will assume leadership of the Doctor of Nursing Science (DNSc) program (which prepares nurse scholars to conduct research in outcomes and health policy - see article on page 3) and work to bring more postdoctoral training fellowships to the School. Another goal of hers is to build a center for women's health, akin to the School's Centers for AIDS Research, Health Policy, International Nursing Development of Advanced Practice, Evidence-Based Practice in the Underserved, and Interdisciplinary Research on Antimicrobial Resistance. Dr. Reame is married to Ron Reame and has two daughters, Jennifer and Stephanie.

"This is a wonderful opportunity to work with a whole new group of top-notch scientists," she says. "In addition to the School of Nursing, the Psychiatric Institute is a huge draw, as is the Rosenthal Center for Complementary & Alternative Medicine and the Center for Bioethics. As a researcher, if you can't figure out something to do here, that's your problem."