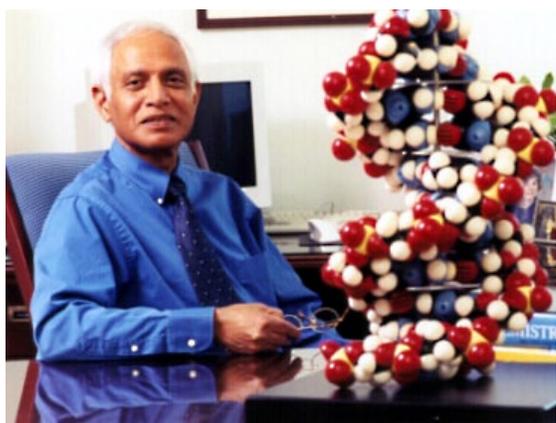


In the Spotlight

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Nair Symposium Celebrates His Tenure and Retirement from the College of Pharmacy



On Thursday, November 19, 2015, the University of Georgia College of Pharmacy will host the Nair Symposium in honor of the retirement of Vasu Nair, Associate Dean for Research at the College of Pharmacy. The symposium begins at the completion of the 2015 UGA Conference on Drug Discovery, which will take place in Mahler Auditorium at the UGA Center for Continuing Education. The symposium will be held from 3:30-5:30 p.m., with a reception to follow from 5:30-6:30 p.m. in the Hill Atrium, outside Mahler Auditorium.

Vasu Nair is the William Henry Terry, Sr., Chair and GRA Eminent Scholar in Drug Discovery, and Director of the UGA Center for Drug Discovery. He was also former Head of the Department of Pharmaceutical and Biomedical Sciences. Nair received his Ph.D. degree at the University of Adelaide, Australia, in natural products chemistry. After postdoctoral training at the University of Illinois, Urbana, and at Harvard University, where he worked with Nobel Prizewinner R. B. Woodward, he joined the faculty at the University of Iowa (UI) and rose to the rank of Professor of Chemistry in 1980 and UI Foundation Distinguished Professor in 1993. He joined the UGA College of Pharmacy faculty in June 2002.

Dr. Nair's research work for the last 35 years has been funded by numerous extramural grants, largely from the NIH and other federal agencies, and has totaled many millions of dollars. This research work has focused on cell signaling and drug discovery targeted against infectious diseases caused by DNA and RNA viruses and gram-positive bacteria. A few examples from his UGA work are illustrated below.

The "point of no return" in HIV infection is the integration of viral DNA into human chromosomal DNA, which is facilitated by the viral enzyme, HIV integrase. Dr. Nair's broad-spectrum, low cytotoxicity, potently anti-HIV active, novel integrase inhibitor is a landmark discovery in HIV integrase bioscience, because of this compound's antiviral activity and its profile with respect to the human phase I and II isozyme superfamilies. Preclinical in vivo studies on the compound revealed rapid absorption, appropriate half-life and bioavailability and extensive extravascular tissue distribution. There were no adverse treatment-related findings from clinical pathology and clinical chemistry parameters! This UGA integrase inhibitor (VN-IV-196), tentatively named "*Glutegravir*," is ready for clinical trials. Dr. Nair's work on RNA viruses focused on inhibitors of the enzyme, IMPDH, as a viable target for broad-spectrum RNA antiviral drug discovery. This hypothesis led to two antiviral ribonucleosides with broad-spectrum activity against Flavi-, Arena-, Phlebo-, Alpha- and Bu-

nya- viruses. A recent UGA discovery was of a small molecule which had significant antiviral activity against dengue virus of the Flaviviridae family. Dengue hemorrhagic fever is a very serious emerging global health problem. Co-infection of infectious retroviruses with multi-drug resistant (MDR) Mycobacterium tuberculosis is a potentially fatal liaison. For this reason, the development of new anti-MDR TB drugs with high efficacy, low toxicity and favorable metabolic profiles has been a major scientific challenge. Dr. Nair's laboratory has invented a conceptually new molecule that showed significant inhibitory activity and drug combination synergy against MDR-TB. The compound also exhibited low toxicity in macrophages. Macrophages are cells of the immune system and are involved in defending the body against foreign invaders such as bacteria. His research contributions have resulted in 440 publications and abstracts and 319 invited/contributed presentations, including plenary lectures. He is the lead inventor on 26 patents and patent application filings, as well as many accompanying international filings. Most of these filings have been from UGA.

Dr. Nair's honors and awards are distinguished. In 2007, Dr. Nair was the recipient of the Ernest H. Volwiler Award (Gold Medal and Cash Prize), viewed as the highest national research award given by the American Association of Colleges of Pharmacy (AACP). The award was given for "outstanding research in the pharmaceutical sciences." In 2008, he was selected as the University of Georgia Inventor of the Year "for the discovery of inhibitors of the retroviral-encoded enzyme, HIV integrase, and for the significant potential of these inhibitors in therapeutic applications". He was the recipient of a major American Chemical Society Award in 2001 for "meritorious contributions to the chemistry of antiviral agents." In 1998, he was elected a Fellow of the American Association for the Advancement of Science for his "contributions to the development of nucleoside-based antiviral agents." He was honored with a D.Sc. degree in 1991 "for research work of sufficient novelty to change substantially the way in which other researchers view the field."

With respect to teaching and mentoring, he was the recipient of University of Iowa Teaching Award in 2000. Also in 2000, Dr. Nair was recognized as a faculty mentor in the US Presidential Award to CIC member universities for Excellence in Science, Mathematics, and Engineering Mentoring by the White House Office of Science and Technology Policy.

Dr. Nair has supervised the work of about 140 researchers in his group. Graduate student and postdoctoral members of his research group have gone on to receive additional degrees (e.g., M.D. degree) and to pharmaceutical and related positions at 34 pharmaceutical companies. Over 20 graduate students and postdocs have academic positions (one is a Dean and many are full Professors) in the U.S., France, Belgium, India, China, Poland and Japan. All of the undergraduate student researchers went on to graduate or professional programs.

On the personal side, Dr. Nair is a long-standing citizen of the USA. His hobbies include reading fictional and non-fictional works, music, running and growing roses. He is married to Barbara Baker Nair, a former Science Coordinator of the whole Iowa City Community School District and high school science teacher. They have one child, Alison Baker Nair, who is a physician and a NIH-funded Clinical Fellow in Pediatric Critical Care Medicine in the College of Medicine at the University of California, San Francisco.

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