BIOSKETCH: C. RICHARD BOLAND, M.D.

C. Richard Boland MD is Chief of Gastroenterology at Baylor University Medical Center (BUMC) in Dallas, Texas. He was born and raised in upstate New York, received a B.A. from The University of Notre Dame and an M.D. from Yale Medical School. He has a career-long research interest in colon cancer, specifically focusing on the causes of colon cancer and familial cancer syndromes. His academic career began at the UCSF (1978-84), moving to the University of Michigan as Section Chief in GI at the Ann Arbor VA from 1984-95, and Professor of Medicine and Chief of the GI Division at UCSD from 1995-2003. He moved to BUMC in 2003 where he has focused entirely on colon cancer research with both laboratory-based and clinical programs designed to accelerate the translation of basic concepts into diagnostic, preventive, and treatment approaches for clinical medicine.

As a research fellow with Young S. Kim, M.D. at UCSF, Boland worked on mucin glycoprotein alterations in colorectal cancer. After moving to the University of Michigan, he continued work on cancer-associated glycoprotein alterations, and also worked on gastric cancer. In 1990, he changed the focus of his research to the molecular genetics of colorectal cancer following a sabbatical with Andrew Feinberg, MD, at which time he resumed work on Lynch Syndrome (previously called HNPCC). He was among the first gastroenterologists to explore the area of microsatellite instability in cancer, and his laboratory developed in vitro models for the study of Lynch Syndrome, using stable chromosome transfer to correct DNA mismatch repair (MMR) deficiencies in cultured cells. These models demonstrated the role of the DNA MMR system in the regulation of the cell cycle, and demonstrated that this system was involved in tumor cell killing by numerous chemotherapeutic agents. Moreover, this led to the prediction that DNA MMR-deficient tumors might be resistant to standard adjuvant chemotherapy, which was later demonstrated in clinical trials. At this time, he continues to work on hereditary colon cancer, and on the mechanisms by which inflammation predisposes to cancer in the gastrointestinal tract. Moreover, insights gained into the genesis of CRC have also led to the development of preventive strategies, some of which utilize compounds present in foods that are commonly eaten in populations with low CRC incidences.

An area of recent focus has been on epigenetics in CRC. His lab has identified patterns of methylation and microRNA expression that can be used to identify familial forms of CRC not identifiable by other means, and patterns involved with resistance to chemotherapeutic drugs. A goal is to find a simple, effective, and patient-friendly means to screen for early CRC.

Dr. Boland has been funded continuously by the NIH since 1979, served on multiple NIH (and other, including international) Study Sections, has published ~300 papers, has been elected into the AAP, and has trained numerous post doctoral fellows who have followed him into the study of colorectal cancer. He was honored with the GI Oncology Section Mentoring Award in 2011. He is the AGA president from 2011-12.

Updated Dec 2012.

DDW Website, May 2010.

Rick Boland graduated from Yale Medical School where he wrote an MD thesis on familial colorectal cancer. After clinical training and 2 years in the Indian Health Service, he did a GI Fellowship and had his first faculty appointment at UCSF where he focused on complex carbohydrates and colon cancer biology. He moved to the University of Michigan in 1984 as Section Chief at the Ann Arbor VA, and in1990, did a sabbatical that redirected his colon cancer research into more basic tumor genetics. In1995, he became GI Division Chief at UCSD, and was Associate Director for Clinical Research in the Comprehensive Cancer Center. In 2003, he moved to Baylor University Medical Center in Dallas, as Division Chief and Director of the GI Cancer Research Lab. He has published about 275 manuscripts, reviews and chapters, and has been funded by the NIH since 1979. His interests continue to be focused on the fundamental causes of colorectal cancer, and the development of novel approaches to prevention.