

## DISTINGUISHED ALUMNUS

## Robert J. Kurman, M.D. Class of 1968

Robert J. Kurman is the Richard W. TeLinde Distinguished Professor of Gynecologic Pathology at The Johns Hopkins University School of Medicine and is the Director of Gynecologic Pathology at The Johns Hopkins Hospital. His academic work deals with the pathology of the female reproductive organs and he spends the majority of his time rendering microscopic diagnoses on biopsies and operative specimens from women with gynecologic disease seen at Johns Hopkins. In addition, over three thousand cases from outside institutions in the U.S. and abroad are sent to him for consultation. Over the years his research has involved the morphologic and molecular genetic characterization of a variety of gynecologic cancers with the aim of developing methods for prevention and early detection.

Dr. Kurman was born and raised in New York City where he went to Stuyvesant High School and then Queens College, obtaining a Bachelor's degree in Chemistry. During the summers while at Upstate Medical Center he did electives at Albert Einstein/Jacoby Hospital and then Knickerbocker Hospital in NYC where he developed an interest in pathology. Residency training in pathology at the Peter Bent Brigham Hospital, Children's Hospital, and Boston Hospital for Women followed an internship in medicine and pathology at Beth Israel Hospital in NYC. He subsequently did a fellowship in gynecologic pathology with Dr. Robert E. Scully, an internationally recognized expert in the field, and Dr. Arthur Herbst, a gynecologic oncologist, at the Massachusetts General Hospital at the time when it was discovered that DES given to women during pregnancy could, in some instances, lead to the development of clear cell carcinoma of the vagina and cervix in the exposed offspring. Dr. Kurman was involved with the development of a registry to collect additional cases in an effort to clearly establish the link between *in utero* DES exposure and the subsequent development of this rare type of cancer. It was during this time that he became

convinced that he would pursue an academic career in gynecologic pathology. He then began residency training in obstetrics and gynecology at the Boston Hospital for Women, which was interrupted by military service at the Armed Forces Institute of Pathology (AFIP) where he served as Assistant Chief of the Department of Gynecologic and Breast Pathology.

While at the AFIP from 1973-1976, working with Dr. Henry J. Norris at the AFIP and Drs. Peter Scardino, Robert McIntire and Thomas Waldmann from the NIH, Dr. Kurman's research focused on germ cell tumors of the ovary and testis, gestational trophoblastic disease and endometrial hyperplasia and carcinoma. During that time he developed immunohistochemical (IHC) methods for detecting various proteins in formalin-fixed paraffin embedded tissues. These studies were among the first describing how IHC could be applied to surgical pathology. Since then IHC has become a standard method that is used worldwide in the interpretation and diagnosis of pathology specimens.

Upon completing a residency in obstetrics and gynecology at the University of Southern California/ LA County Hospital Dr. Kurman returned to the East Coast and assumed a faculty position at Georgetown University School of Medicine, where he rose to the rank of Professor of Pathology and Obstetrics and Gynecology. While at Georgetown he and his colleagues Drs. Bennett Jenson, Wayne Lancaster, Atilla Lorincz and Mark Schiffman made seminal observations in the late 1970s linking human papillomavirus (HPV) to cervical cancer and its precursors based on correlated clinicopathologic, molecular genetic and epidemiologic studies. These investigations led to the development of molecular diagnostic tests for HPV that are now used in routine cervical cancer screening. Over the last 15 years as a consultant for Merck Pharmaceuticals he has been involved with the development of HPV vaccines.

In 1989 Dr. Kurman was recruited to the faculty of the Departments of Gynecology



and Obstetrics and Pathology at the Johns Hopkins Hospital as the Richard W. TeLinde Distinguished Professor of Gynecologic Pathology and Director of Gynecologic Pathology. In 2003 he was appointed Professor in the Department of Oncology. Shortly after arriving at Hopkins, he collaborated with Dr. Diane Solomon from the NIH to develop what has become known as "The Bethesda System (TBS) for Reporting Cervical/Vaginal Cytologic Diagnoses", a system that replaced the previous Papanicolaou Classification system and is now the standard cytology classification system in the U.S. and abroad.

By collaborating not only with other pathologists but also with molecular biologists and epidemiologists, he has demonstrated the value of a multimodal approach to ovarian cancer research. His vision has led to the proposal of a new disease model, which synthesizes clinical observations, pathobiological mechanisms and validates conceptual hypotheses with molecular data, thereby bringing new insights to the field. For example, based on morphologic and molecular genetic studies with his close colleague Dr. Ie-Ming Shih, a dualistic model of ovarian carcinogenesis was developed, which has now become widely accepted in the field. In addition, their recent studies implicating a precursor lesion in the fallopian tube as the origin of many so-called "ovarian" carcinomas have dramatically changed our thinking on this subject, with important implications for ovarian cancer screening and prevention. His research has resulted in the publication of over 250 original peer reviewed papers and nearly 150 review articles and book chapters.

Dr. Kurman's influence extends well beyond these research efforts. He has recruited and mentored pathologists and researchers who have become distinguished gynecologic pathologists in their own right. Many pathologists know him as an author and editor through his significant educational publications, including Blaustein's Pathology of the Female Genital

Tract (3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> editions), Diagnosis of Endometrial Biopsies and Curettings-A Practical Approach (two editions), the AFIP fascicles on Tumors of the Cervix, Vagina, and Vulva (3<sup>rd</sup> and 4<sup>th</sup> series) and Tumors of the Uterine Corpus and Gestational Trophoblastic Disease (3<sup>rd</sup> series). He is currently editing the next edition of the World Health Organization Classification of Tumours of the Female Reproductive Organs. In addition, he is sought after as a lecturer worldwide. He has contributed to the advancement of the field through his leadership in professional societies, including being President of the International Society of Gynecologic Pathologists, participation in international committees, and membership on editorial boards of numerous journals. In recognition of his scholarship and leadership activities he has recently become an Honorary Fellow of the Royal College of Pathologists.

Dr. Kurman currently resides in Bethesda, Maryland with his wife Carole of 34 years. He has a daughter Jill who lives in Los Angeles. His hobbies include photography, swimming, hiking, traveling, reading and enology. As one former fellow and colleague has observed, "like a fine wine, Dr. Kurman has only improved with age, even though he himself resists signs of aging." Given that Dr. Kurman's efforts have been instrumental in affecting a modernization of gynecologic pathology through his understanding of the value of combining molecular investigations with traditional morphologic assessment, it would be most accurate to say that as a pathologist he is a fine blend.

\*Bio submitted by Dr. Kurman