

# Letter from the Chair

Welcome to this year's Yale Pathology Labs Calendar. The past year has seen many advances in both the responsiveness and the capabilities of our outreach services, some of which are highlighted herein. These include continued expansion and increasing automation of our advanced Molecular Diagnostics and Tumor Genotyping programs; the institution of real-time monitoring and work-flow optimization of patient specimen tracking within the laboratory; and the institution of a new national reference laboratory for non-malignant hematological disorders that incorporates a CLIA certified laboratory for clinical next-generation genome sequencing of patient samples. These advances continue our long tradition at Yale of introducing leading technologies for the benefit of patient care. Indeed, Pathology was one of the first departments organized at Yale School of Medicine (in 1867), and has contributed in many ways to Yale's tradition of scientific research, teaching, and patient care. Early Yale pathologists were among the first to document the ravages of the 1918 flu pandemic; they also led the investigation of pathologies associated with radiation and burn injuries in atomic bomb victims, and later established Yale as the leading center for research into environmental lung disease. Recent advances include basic discoveries in mapping the epigenetic basis of tumor progression; novel genetic and epigenetic screening methodologies that promise new methods of detecting occult tumors in the pancreas and colon; new insights into the many ways that tumors achieve their aggressive growth; gene-detection methodologies that have revolutionized our assessment of lymphoproliferative disorders; novel concepts of breast cancer initiation, progression, and diagnosis that are central to guiding therapy for patients with breast cancer; widespread institution of advanced molecular techniques for cervical cancer risk detection, the detection of sexually transmitted infections; and the development of innovative and promising approaches to vaccine development for viral diseases. Most recently, in collaboration with Yale's Comprehensive Cancer Center and the Smilow Cancer Hospital, Pathology has instituted large-scale genotyping of patients with cancer, opening the door to an era of truly personalized cancer therapy. On other fronts, Pathology has expanded several of its subspecialty diagnostic programs as well as its investigative programs into cancer biology and degenerative disease.

The good news is that Yale's exceptional diagnostic clinical programs offer patients the most accurate, most advanced, and most cost-effective pathology and laboratory evaluations available, and we make these easily accessible to all physicians and patients. With a worldwide consultative program, with practice sites at Yale–New Haven Hospital, Bridgeport Hospital, Yale University Health Services, and the Shoreline Clinic in Guilford, CT, coupled with our robust outreach program designed to serve physicians in their offices, our physicians and services are easily reached. Details of how this is done are presented in this publication, designed to inform and enjoy.

Sincerely,

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