

Department of Surgery

Researcher Profile: Dr. Raymond Yeung



Raymond Yeung, MD
Professor of Surgery &
Adj. Professor of Pathology
University Medical Center
UW School of Medicine

A leading basic science researcher focusing on tumor development and liver physiology, **Dr. Raymond Yeung** is a National Institute of Health (NIH) funded researcher producing groundbreaking work. His work in basic science is translational in focus, meaning that the findings on the bench can lead to practical and important changes in clinical practice.

Dr. Yeung is an expert on the study of tuberous sclerosis (TSC), a genetic condition

that, among other manifestations, can cause patients to develop “multiple tumor-like lesions that exhibit aberrant phenotypes in cell size (growth), proliferation, differentiation and spatial distribution.” The NIH currently funds Dr. Yeung as his lab studies how mTOR, a protein that, among other functions, regulates cell growth, affects the fundamental processes of tumor biology. While TSC is a rare condition, understanding the role that mTOR may play in disrupting normal cell processes may shed light in understanding cell abnormalities in other pathologies, including our basic understanding of cancer, diabetes, vascular disease and aging.



UW Medicine surgeon Dr. Raymond Yeung participating in a liver resection surgery.

Building on his findings thus far, Dr. Yeung has applied for nearly two million dollars of NIH funds to study mTOR’s role in the development of liver tumors. Hepatocellular carcinoma (HCC) is a devastating cancer of the liver. While generally a somewhat rare cancer in the United States, its prevalence is increasing rapidly—some studies showing a near 20-fold increase from 1996-2006. The prognosis of patients with HCC can be grim; only a small percentage of patients are candidates for surgical

interventions: transplant or resection. Because of this, targeted therapies to disrupt the tumor pathways may prove to be effective in treating HCC. Dr. Yeung’s research seeks to “identify the key players in order to provide a framework for designing combination therapies targeting multiple relevant pathways to achieve the desired clinical response.”

Dr. Yeung is also an early adopter of minimally invasive image-guided therapies for liver treatment. While laparoscopic procedures have been used frequently for some time in many areas of surgery, minimally invasive surgical techniques for liver procedures are less common. The University of Washington began a multidisciplinary Liver Tumor Clinic in 1998 and has seen more than 300 laparoscopic radiofrequency ablations. A laparoscopic hepatic resection program began more recently and, has benefitted surgical candidates with less bleeding, less intra-operative pain and shorter hospital stays.

Dr. Yeung’s pioneering research is an important pillar of the Department of Surgery’s research enterprise. The discoveries from his lab may very well lead to important changes in the way cancer development is understood...and possibly cured.

Surgery photo by Clare McLean

New Colorectal Surgeon to Join UW Department of Surgery in July



Dr. Alessandro Fichera, our new colorectal surgeon, will be joining the faculty at the University of Washington Medical Center in the Department of Surgery, July 1, 2012. Dr. Fichera grew up in Italy and completed his MD at the Catholic University of Rome followed by surgical residency training in Italy and then at the University of Chicago. He did his Colorectal Fellowship training at Mt. Sinai School of Medicine in New York City. Since 2002, he has served on the faculty at the University of Chicago, most recently becoming Program Director for the University of Chicago Colorectal Surgery training program. He comes to the University of Washington with his wife, Lia, and twin sons, and brings a national reputation for clinical excellence and innovation. Dr. Fichera’s clinical areas of focus will include endoscopic diagnosis, surgical treatment of colon and rectal diseases including inflammatory bowel disease and colorectal cancer, disease of the anorectum, endoscopic and robotic colorectal surgery, and minimally invasive procedures for colorectal disease.