

Profiles



ANDREW KUNG MD, PHD

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The recent reunification of the oncology, hematology, and stem cell transplant programs into one academic division under new Chief Andrew Kung, MD, PhD brings three very complimentary areas together again, Dr. Kung says. Joining them, “will allow us to maximize efficiencies in delivering excellent patient care and also facilitate the training program across the different specialties,” he says. Dr. Kung, who joined CUMC last August after almost 20 years at the Dana-Farber Cancer Institute in Boston, has clinical experience in transplantation and a research career identifying the causes of, and targeted treatment strategies for, cancer. In his new role he oversees clinical care in the division, whose doctors treat more than 1,500 patients annually, and is building a research program to develop the next generation of therapies for pediatric cancers and blood disorders.

“The division has always been very strong in both clinical care and research. Going forward one focus is to build up the connections between the two in the form of translational research,” he says—but he envisions translational research as a two-way street. “We have traditionally thought of translation as going in one direction—we figure out new biology, ways to treat patients, or causes of disease, and then develop improved diagnostics and treatments to move into the clinic.” In Dr. Kung’s vision knowledge is translated from the clinic to the lab as well, he says, because researchers can learn a lot from patients; analyses of patients’ tumor tissue will provide leads for scientists in the laboratory, for example. “We want to build a platform where new ideas for treatment—whether they come from basic scientists or

clinicians—can be tested in the lab so that we can rapidly prioritize and translate the best ideas into treatments in the clinic.”

Genomic and sequencing technologies are very important components of this approach, enabling researchers to analyze tumors for cancer-causing mutations. “When we find a new mutation and want to figure out if it is responsible for the development of disease, we can immediately take that question back to the laboratory scientists,” he says. “So the genomic technologies will become important drivers of our care of patients and will also help prioritize our work in the laboratory.”

Many medical centers are moving toward the concept of providing personalized medicine, where patient’s tumor tissue is analyzed, and their doctors then tailor the treatments to their particular mutations. Over the next year, as the division acquires additional technologies, data, and means of testing, its members will be able to increase the *precision* with which they treat patients, says Dr. Kung. “This division has always prided itself on providing personalized care, meaning we have always tailored treatments to fit every individual patient. Now we want to leverage the genomics revolution to tailor our treatments and provide ‘precision medicine.’”

As he grows the division’s research arm, Dr. Kung is also working to strengthen the hematology program, which has particular expertise in sickle cell disease, by adding specialists in clotting and bleeding disorders, as well as recruiting new physicians for the stem cell transplant program. “We want to build on our existing strengths by expanding our transplant program for non-malignant diseases such as sickle cell disease. So there’s an obvious synergy in having hematology and transplant in the same division,” he says. Dr. Kung is also working closely with Rachel Miller, MD, Director of the Division of Pediatric Allergy and Immunology, to create a program for providing transplants to patients with immunodeficiencies, as well.

“To build upon a foundation that already embodies excellence is really quite exciting,” Dr. Kung says. While most programs around the country are now stagnant because of the current economic environment, CUMC has identified cancer as an area of focus and has committed resources that allow the division to be in building mode, he says. “That commitment ensures that we can grow, evolve, and innovate, and build a next-generation program by investing in existing programs, recruiting new people and committing resources to new technologies and innovative ways of treating patients. That’s how we’re going to move to the next level,” he says. —*Beth Hanson*