Postdoctoral positions in pancreatic cancer translational research:

Precision Medicine and Immuno-oncology

We are seeking strong candidates for two high-impact, cross-disciplinary research projects within the pancreatic cancer research program at Columbia University Medical Center. Both positions will be co-mentored by Dr. Kenneth Olive, who leads a multidisciplinary translational therapeutics program in pancreatic cancer. Both positions will involve the direct translation of laboratory research efforts into clinical trials, providing a unique opportunity to impact patient outcomes.

For Project 1, the candidate will lead the research implementation of a large-scale **Precision Medicine** program that will utilize information from RNA profiles (rather than DNA mutations) to guide the treatment of patients with pancreatic cancer. This candidate will be **co-mentored by Prof. Andrea Califano**, Chair of the Dept. of Systems Biology at Columbia University. Prof. Califano is a world-leader in the development and utilization of computational biology techniques. The project will involve both preclinical studies in mouse models as well as co-clinical studies in patient-derived xenografts, the results of which will be used to treat patients with pancreatic ductal adenocarcinoma in a Phase 1b clinical trial. This position requires a candidate with superior organizational and management skills, deep experience working with mouse models, and an understanding of computational techniques. Evidence of experience working effectively within a multidisciplinary team setting is preferred, along with at least basic experience using R for computational biology applications.

For Project 2, the candidate will lead an **Immuno-oncology** project within the group of **Dr. Gulam Manji**, a GI medical oncologist and physician scientist who leads multiple investigator-initiated clinical trials and is focused on immunotherapy research in pancreatic cancer. Dr. Manji's research aims to target key pathways within the tumor microenvironment in combination with chemotherapy to identify superior treatment options for pancreatic cancer patients and to elucidate the underlying mechanism(s) of immunotherapy resistance. Pre-clinical mouse models and human tissue samples from early phase clinical trials are used to address these questions. The project will involve analyzing the immune tumor microenvironment within human tissue from pancreas cancer patients treated with distinct immunotherapy combinations, utilizing multiplex immunofluoresence and RNA-seq on the epithelial and stromal compartments using laser capture microdissection.

Both projects will utilize genetically engineered mouse models, PDX models, clinical samples, pharmacology, computational biology, systems pathology, small animal imaging, and other diverse techniques established in our group, as well as our "Mouse Hospital" core infrastructure. The program also makes use of the clinical research-oriented resources of the Columbia Pancreas Center, a high volume clinical multidisciplinary team focused on the care and treatment of pancreatic cancer patients, which includes a large-scale biorepository of frozen pancreatic tumor samples. Candidates for both positions will be expected to engage with key clinical and research partners across disciplines to lead and organize large-scale efforts to attack this disease.

Interested candidates should contact Dr. Olive at: kenolive@columbia.edu. Please provide a CV and cover letter and indicate the position of interest.