



Matthew Kulke, M.D.

Dr. Matthew Kulke is focused on identifying the molecular events that drive the development and growth of carcinoid and other neuroendocrine tumors. By identifying gene mutations involved in carcinoid, Dr. Kulke hopes to discover new targets for possible therapies.

To attack this problem, Dr. Kulke and his collaborators have created the largest clinical databank of carcinoid and neuroendocrine tumors. This databank contains clinical information, patient blood samples, and tumor specimens from over 500 neuroendocrine tumors.

Dr. Kulke and collaborators have used genomic approaches to mine this tumor databank to address many important questions in the neuroendocrine tumor field. Some of these queries include searching for predictors of treatment response, genetic markers of risk for neuroendocrine tumors, and identification of genes that are deleted or expressed at high levels in tumors. Dr. Kulke's group has already identified many candidate genes whose expression is altered in neuroendocrine tumors, suggesting that they may play a role in tumor growth. Many of these genes are important regulators of cell growth or genes involved in angiogenesis, the process by which tumors create their own blood supply.

Recently, Dr. Kulke has also discovered that neuroendocrine tumors of the pancreas which are defective in a certain DNA repair gene called MGMT are especially sensitive to the chemotherapeutic agent temozolomide. This finding could have important implications for tailoring therapy for patients with neuroendocrine tumors.

Dr. Kulke's tumor databank will no doubt prove a valuable resource to study carcinoid and other neuroendocrine tumors.

Recent Publications:

Kulke MH. New developments in the treatment of gastrointestinal neuroendocrine tumors. *Curr Oncol Rep* 9:177-83, 2007

Schwarzberg AB, Stover EH, Sengupta T, Michelini A, Vincitore M, Baden LR, Kulke MH. Selective lymphopenia and opportunistic infections in neuroendocrine tumor patients receiving temozolomide. *Cancer Invest* 2007 25:249-255.

Kulke MH. Gastrointestinal neuroendocrine tumors: a role for targeted therapies? *Endocr Relat Cancer* 2007 14:207-219.

Kulke MH. Clinical presentation and management of carcinoid tumors. *Hematol Oncol Clin North Am* 21:433-55; vii-viii, 2007

Clancy TE, Sengupta TP, Paulus J, et al: Alkaline phosphatase predicts survival in patients with metastatic neuroendocrine tumors. *Dig Dis Sci* 2006 51:877-884.

Kulke MH, Wu B, Ryan DP, et al: A phase II trial of irinotecan and cisplatin in patients with metastatic neuroendocrine tumors. *Dig Dis Sci* 2006 51:1033-1038.

Kulke MH, Stuart K, Enzinger PC, et al. Phase II study of temozolomide and thalidomide in patients with metastatic neuroendocrine tumors. *J Clin Oncol* 2006 24:401-406.

Kulke MH, Bergsland EK, Ryan DP, et al. Phase II study of recombinant human endostatin in patients with advanced neuroendocrine tumors. *J Clin Oncol* 2006 24:3555-3561.