A tale of two interests.

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I have been privileged to participate in and contribute to two major areas of research, one investigating epileptogenesis in *in vitro* models and the other exploring approaches to improve education and assessment modalities in the neurosciences.

My **basic research** career began in the laboratory of Bob Wong. Together we discovered that selective activation of group I metabotropic glutamate receptors could transform interictal bursting activities in hippocampal slices into ictal-length discharges. Additional experiments revealed that this transformation was persistent, suggesting a long-lasting epileptogenic process could be induced by group I mGluR activation. Furthermore, mGluR1 and mGluR5, the two members of group I, had distinct roles in the induction vs. maintenance of these persistent ictaform discharges. These studies suggest potential for the development of pharmaceutical agents employing this mechanism of action that may have efficacy not only as seizure-suppressing agents but as true antiepileptic agents, preventing induction of epileptogenesis following cortical injury from ischemia or head trauma.

My **education research** endeavors have been numerous. I have explored methods to increase neurology and neuroscience education in the undergraduate environment in the face of limited allocation of calendar time, bridge preclinical and clinical training, and improve the clerkship experience without detriment to exam performance or grades. I have developed assessments of student performance to minimize preclinical overreliance on multiple choice exams, and have standardized writeup grading and oral exam grading for the clerkship. We introduced simulations in clerkship education and improved resident training in preparation for their jobs as community neurologists and clinician-educators.