ヒューストンメソジスト研究所（米国テキサス州ヒューストン市）における、がん生物学および脳科学研究分野でのポスドク募集のお知らせ

Postdoctoral fellow and/or postdoctoral associate positions are available for the projects in cancer biology to study mechanisms of cancer metastasis initiation and in neurology to discover roles of SATB2 gene mutation in brain development in Dr. Kenji Yokoi's (横井 健二) lab at the Houston Methodist Research Institute, Houston TX.
(https://www.houstonmethodist.org/research/)
(https://www.houstonmethodist.org/for-health-professionals/department-programs/nanomedicine/)
(https://yokoi.hmailabs.org/)

Our goal is to determine bio-physical roles of the pre-metastatic niche evolution on transport of circulating tumor cells in the blood vessels of distant organs to initiate cancer metastasis. This multidisciplinary research project will be supported by NCI for 5 years
(https://physics.cancer.gov/ , https://physics.cancer.gov/network/HoustonMethodistResearchInstitute-2.aspx)
(https://www.houstonmethodist.org/-/media/pdf/Research/labs/yokoi/Biophysical-roles-of-premetastatic-niche-evolution-on-transport-of-circulating-tumor-cells.ashx).
We will image and quantify development of the pre-metastatic niche and circulation/arrest of the circulating tumor cells in the blood vessels of the primary tumor-bearing mice using various imaging techniques and cell lines with different metastatic potentials. We will also utilize novel microfluidics in collaboration with Dr. Lidong Qin's lab in our department to reproduce the microenvironment of blood vessels with the pre-metastatic niche (https://www.houstonmethodist.org/faculty/lidong-qin/).

We will initiate neuroscience research for SATB2-associated syndrome (SAS) in collaboration with Dr. Ashizawa, Professor of Neurology, Director, Neurosciences Research Program, Houston Methodist
(https://www.houstonmethodist.org/faculty/tetsuo-ashizawa/).
SAS is a recently described very rare developmental disease. The goal of this research is to elucidate the consequences of the genetic mutation in SATB2 gene using induced pluripotent stem (iPS) cell lines developed from patient's peripheral blood and its isogenic control cells utilizing CRISPR-Cas9. Mouse model carrying the specific mutation will be established to study the in vivo function of the mutated SATB2 gene and discover potential therapeutic targets/methods.

Applicants should hold a MD, Ph.D. or DVM degree and have a background in cell, stem cell biology, molecular biology, and/or genetics with experiences on handling various mouse models, imaging techniques, and in vitro studies using cell lines, stem cells, proteins and genes.

Salary and benefits for postdoctoral fellow or postdoctoral associate will be commensurate with the NIH and Houston Methodist guidelines.

このポジションに興味のある方、あるいは米国留学にあたりいろいろな不安などある方々はどうぞ遠慮なくご連絡ください。

Kenji Yokoi, MD, PhD,
横井 健二

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