

大学院特別講義

新潟脳神経研究会特別例会の御案内

日時：令和元年8月7日（水） 18:00～19:30

場所：脳研究所 1F 検討会議室

1) **mTOR signaling and brain malformation**

In this presentation, I first introduce the current state of molecular knowledge of mTOR complexes and signaling in general. I then describe mTOR activation in neurons, which leads to translational enhancement. In the last part, I present the data about mTOR hyperactive mutation and brain malformation.

Nobuyuki Takei

Department of Molecular Neurobiology

2) **Monitoring of autophagy in gliomas**

Autophagy is a process of protein degradation in which cellular proteins are sequestered, delivered to lysosomes and digested. The main function of autophagy in cancer is thought to be cell protective. We analyzed the induction of autophagy by immunohistochemistry and western blot in gliomas after treatment and briefly discuss the regulation of autophagy by the mTOR pathway.

Manabu Natsumeda

Department of Neurosurgery

3) **Role of ATRX and alternative lengthening of telomeres (ALT) in neurofibromatosis type 1-associated solid malignancies**

(裏面に続く)

The predominant mechanism of telomere maintenance in cancer is expression of the enzyme telomerase, which is low under physiologic conditions, but re-expressed in most cancers. A variety of mechanisms lead to sustained expression of telomerase, but specific subsets of tumors maintain their telomeres independent of telomerase through ALT, which is the result of a homologous recombination-based process. ALT is strongly associated with inactivation of chromatin remodeling proteins ATRX (or DAXX) which may play a causal role in ALT. Recent work from our laboratory has demonstrated that ATRX loss and ALT occur frequently in high grade astrocytomas developing in patients with NF1 and in a subset of malignant peripheral nerve sheath tumors (MPNST). I will present our data on the prognostic significance of these alterations in solid tumors from NF1 patients, and efforts in our laboratory to study them using model systems.



Fausto J. Rodriguez

Associate Professor of Pathology,
Oncology and Ophthalmology
Johns Hopkins University School of
Medicine

Baltimore, MD, USA

(新潟大学脳研究所共同研究拠点国際共同研究者)

どうぞ奮ってご参加ください。

(担当：脳神経外科分野)

新潟大学脳研究所長：那波宏之