Lymphoid Malignancies Group:

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EDUCATION:
Postdoctoral Training, National Cancer Institute, National Institutes of Health, Bethesda, MD (2011-2016)
Postdoctoral Training, Aichi Cancer Center Research Institute, Japan (2006-2011)
Ph.D. in Molecular Genetics and Hematology, Hokkaido University Graduate School of Medicine, Japan (2006)
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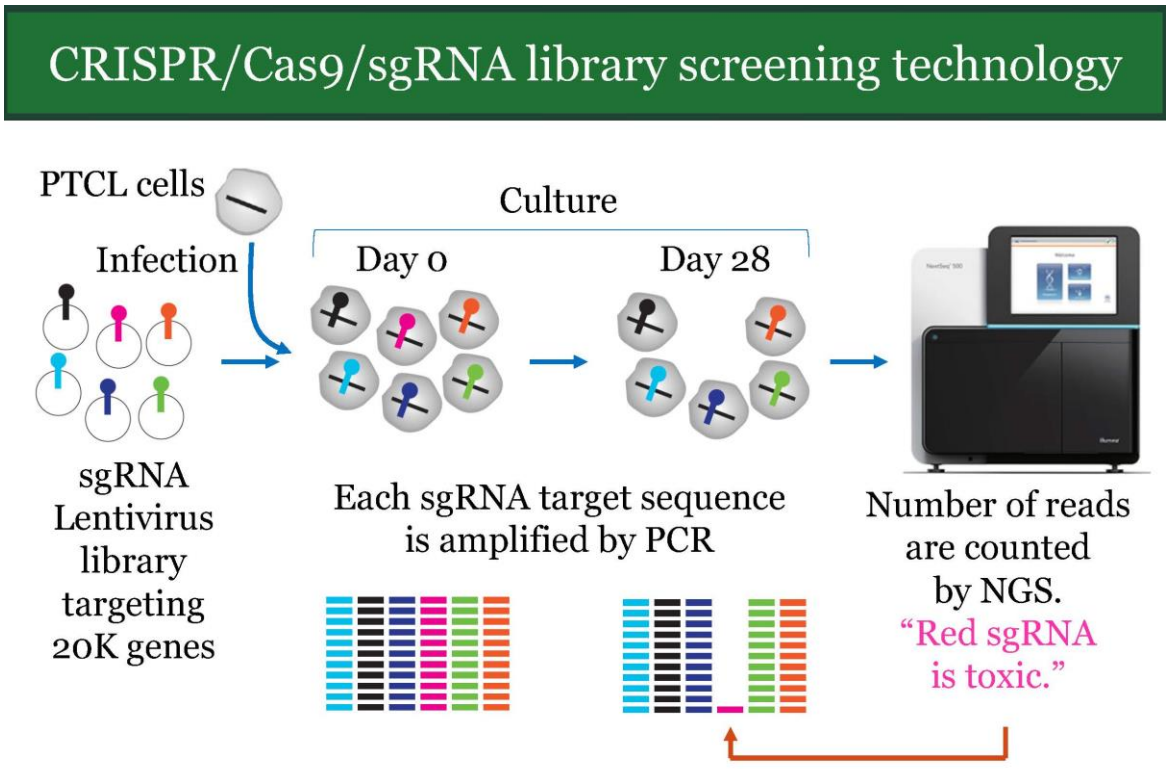
ACADEMIC SOCIETY MEMBERSHIP:
The American Society of Hematology
The Japanese Cancer Association
The Japanese Society of Hematology
The Japanese Society of Internal Medicine

AWARDS AND FELLOWSHIP:
Research Fellowship of Uehara Memorial Foundation (2010)
The Center for Cancer Research (CCR) Federal Technology Transfer Award (2015)
The Fellows Award for Research Excellence (FARE) Travel Award (2016)

RESEARCH INTERESTS:
Functional genomics for discovering the therapeutic molecular targets in PTCL

> Identifying the "Achilles' heel" genes in peripheral T-cell lymphomas as molecular targets for therapeutic intervention.
> Defining the molecular mechanisms of frequently mutated CCR4 gene in PTCL.



Overview

Human peripheral T-cell lymphomas (PTCL) is approximately 10 % of non-Hodgkin Lymphomas in worldwide. PTCL comprises heterogeneous diseases, where most are aggressive with less than 40% of 5-year overall survival with current treatment strategy. A discovery for new therapeutic modalities is urgent need.

Recently, the Next generation sequencing technology enabled us to find frequently mutated genes in PTCL. In my previous work as a postdoctoral fellow in Lou Staudt Lab and Thomas Waldmann lab, we discovered frequent gain-of-function mutation in chemokine receptor CCR4 gene in Adult T-cell leukemia/lymphoma (ATLL) and provided functional evidences that inhibition of CCR4 signaling might have therapeutic potential for patients with ATLL. However most of other somatically mutated genes in PTCL were not fully characterized in terms of therapeutic targets. On the other hand, it has been recently known that the malignant cells potentially acquire the dependency on un-mutated genes which is the phenomenon called as "non-oncogene addiction". These observations indicate that non-biased and comprehensive functional investigation should be conducted in order to discover the therapeutic molecular targets in PTCL.

The goal of our laboratory is to understand the oncogenic molecular networks in PTCL which can be exploited for therapeutic intervention. To directly address this issue, our lab applies revolutionizing CRISPR/Cas9/sgRNA library screening technology to the following functional investigation.

1) Identifying indispensable pathways/molecules for the cellular proliferation/survival of PTCL cells, especially ATLL.
2) Discovering the pathways/molecules associated with drug-resistance or drug-sensitivity in PTCL cells.

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2011	Grant-in-Aid for Young Scientists (B), Research Project Number:23791095, JSPS, Japan.
2009-2010	Grant-in-Aid for Young Scientists (B), Research Project Number:21790930, JSPS, Japan.
2007-2008	Grant-in-Aid for Young Scientists (B), Research Project Number:19790678, JSPS, Japan.

PUBLICATION LIST:

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