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Current Position:	Project leader / Senior staff scientist
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EDUCATION

1996 M.D. The University of Tokyo

2000 Ph.D. (Medical Science) The University of Tokyo

FACULTY APPOINTMENTS

2000 Assistant Professor. Department of Pathology, the University of Tokyo

2004 Staff scientist. Division of Pathology, The Cancer Institute

2011 Project leader / Senior staff scientist. Pathology Project for Molecular Targets /Division of Pathology, The Cancer Institute

PROFESSIONAL MEMBERSHIP

- The Japanese Society of Pathology
- The Japanese Society of Lymphoreticuloendothelial System
- The Japanese Society of Hematology
- The Japanese Cancer Association
- Tokyo Lymphoma Study Group

AWARDS

- 2010 Young Investigator Award. The Japanese Society of Pathology
- 2010 Young Investigator Award. The International Academy of Pathology

PUBLICATIONS

>100 publications in peer-reviewed journals.

Publications in 2011

1. Watanabe T, Tobinai K, Shibata T, Tsukasaki K, Morishima Y, Maseki N, Kinoshita T, Suzuki T, Yamaguchi M, Ando K, Ogura M, Taniwaki M, Uike N, Takeuchi K, Nawano S, Terauchi T, Hotta T. Phase II/III Study of Rituximab Plus Cyclophosphamide, Doxorubicin, Vincristine and Prednisolone (R-CHOP-21) Versus Two-Week R-CHOP (R-CHOP-14) for Untreated Indolent B-Cell Non-Hodgkin Lymphoma: Japan Clinical Oncology Group (JCOG) 0203 Trial. ***J Clin Oncol***. in press.

2. Kijima T, Takeuchi K, Tetsumoto S, Shimada K, Takahashi R, Hirata H, Hoshino S, Nagatomo I, Takeda Y, Kida H, Goya S, Tachibana I, Kawase I. Favorable Response to Crizotinib in Three Patients with EML4-ALK Fusion-type Oncogene-positive Non-Small Cell Lung Cancer. ***Cancer Sci***. in press.

3. Kimura H, Nakajima T, Takeuchi K, Soda M, Mano H, Iizasa T, Matsui Y, Yoshino M, Shingyoji M, Itakura M, Itami M, Ikebe D, Yokoi S, Kageyama H, Ohira M, Nakagawara A. ALK fusion gene positive lung cancer and 3 cases treated with an inhibitor for ALK kinase activity. ***Lung Cancer***. 2011.

4. Tanimoto T, Matayoshi T, Yagasaki F, Takeuchi K, Kami M. Safety and efficacy of zoledronic acid in multiple myeloma. ***Lancet***. 2011;377:2178.

5. Yao R, Natsume Y, Saiki Y, Shioya H, Takeuchi K, Yamori T, Toki H, Aoki I, Saga T, Noda T. Disruption of Tacc3 function leads to in vivo tumor regression. ***Oncogene***. 2011.

6. Takeuchi K, Soda M, Togashi Y, Sugawara E, Hatano S, Asaka R, Okumura S, Nakagawa K, Mano H, Ishikawa Y. Pulmonary Inflammatory Myofibroblastic Tumor Expressing a Novel Fusion, PPFIBP1-ALK: Reappraisal of Anti-ALK Immunohistochemistry as a Tool for Novel ALK Fusion Identification. ***Clin Cancer Res***. 2011;17:3341-3348.

7. Tachibana T, Tomita N, Furuya M, Yamanaka S, Takeuchi K, Nakamura N, Fujita H, Ishigatsubo Y. Aberrant CD20 Expression in Angioimmunoblastic T-cell Lymphoma. ***Intern Med***. 2011;50:495-499.

8. Watanabe N, Noh JY, Narimatsu H, Takeuchi K, Yamaguchi T, Kameyama K, Kobayashi K, Kami M, Kubo A, Kunii Y, Shimizu T, Mukasa K, Otsuka F, Miyara A, Minagawa A, Ito K. Clinicopathological features of 171 cases of primary thyroid lymphoma: a long-term study involving 24 553 patients with Hashimoto's disease. ***Br J Haematol***. 2011;153:236-243.

9. Okuda C, Kim YH, Takeuchi K, Togashi Y, Masago K, Sakamori Y, Mio T, Mishima M. Successful treatment with pemetrexed in a patient with mucinous bronchioloalveolar carcinoma: long-term response duration with mild toxicity. ***J Thorac Oncol***. 2011;6:641-642.

10. Takeuchi K, Soda M, Togashi Y, Ota Y, Sekiguchi Y, Hatano S, Asaka R, Noguchi M, Mano H. Identification of a novel fusion, SQSTM1-ALK, in ALK-positive large B-cell lymphoma. ***Haematologica***. 2011;96:464-467.

Talk at IAAO 2011

Session: Personalized medicine; Targeting ALK-fusion

Title: Exploring for ALKoma with use of integrated diagnostic techniques

Abstract

For molecular targeted therapy, an accurate selection of patients who benefit from therapy, i.e., a precise detection of the target molecule in tumor tissues, is most important. The following 3 methods are useful for analysis of EML4-ALK: FISH, RT-PCR, and immunohistochemistry (IHC). However, each method has its own analytical difficulties, which arise because of the unique features of this fusion. *EML4-ALK* has many fusion points; therefore, RT-PCR primer settings need to be well refined. We developed a multiplex RT-PCR technique for detecting all theoretically possible fusion variants and identified 5 unknown variants. Conventional anti-ALK IHC for EML4-ALK is unreliable probably because of its low expression level. To overcome this, we developed a sensitive anti-ALK IHC method, the iAEP method. This method has enabled efficient and sensitive detection of EML4-ALK and has helped in identifying novel ALK fusions: KIF5B-ALK, SQSTM1-ALK, PPFIBP1-ALK and others. We recently developed a 5′-RACE-based system optimized for formalin-fixed paraffin-embedded (FFPE) tissues and identified a novel ALK fusion in lung cancer tissues. To the best of our knowledge, it is the first oncogenic fusion identified using FFPE tissues only. This will broaden the potential value of archival FFPE tissues. Studies employing an integrated diagnostic technique for identifying ALK fusions in various types of sample from various cancers are providing further biological and clinical insights in ALKoma.

SELECTED REFERENCES RELATED TO THE TALK

1. Takeuchi K, et al. Pulmonary Inflammatory Myofibroblastic Tumor Expressing a Novel Fusion, PPFIBP1-ALK: Reappraisal of Anti-ALK Immunohistochemistry as a Tool for Novel ALK Fusion Identification. ***Clin Cancer Res***. 2011;17:3341-3348.
2. Takeuchi K, et al. Identification of a novel fusion, SQSTM1-ALK, in ALK-positive large B-cell lymphoma. ***Haematologica***. 2011;96:464-467.
3. Takeuchi K, et al. KIF5B-ALK, a Novel Fusion Oncokinase Identified by an Immunohistochemistry-based Diagnostic System for ALK-positive Lung Cancer. ***Clin Cancer Res***. 2009;15:3143-3149.
4. Takeuchi K, et al. Multiplex reverse transcription-PCR screening for EML4-ALK fusion transcripts. ***Clin Cancer Res***. 2008;14:6618-6624.