
Department of Pathology and Diagnostic Pathology

Professor

Masashi Fukayama, M.D., Ph.D.

Associate Professor

Hiroshi Uozaki, M.D., Ph.D., Shumpei Ishikawa, M.D., Ph.D.

Lecturer

Yutaka Takazawa, M.D., Ph.D.*

Junji Shibahara, M.D., Ph.D. (visiting researcher, USA)

Lecturer (Hospital)

Tetsuo Ushiku, M.D., Ph.D.*

Associate

Rumi Hino, M.D., Ph.D., Aya Shinozaki, M.D., Ph.D., Yukako Shintani, M.D., Ph.D.,
Akiko Kunita, M.D., Ph.D.

Tetsuo Ushiku, M.D., Ph.D.*, Masako Ikemura, M.D., Ph.D.*, Daichi Maeda, M.D., Ph.D.*,
Keisuke Matsusaka, M.D., Ph.D.*

Teppei Morikawa, M.D., Ph.D. * (visiting researcher, USA)

Naoko Yamauchi, M.D., Ph.D. (Global COE Program)

Technical Support Specialist

Yasuyuki Morishita, M.T., Shinichi Harada, Kei Sakuma

Homepage <http://pathol.umin.ac.jp/>

Introduction and Organization

Department of Pathology and Diagnostic Pathology is responsible for the practice of diagnostic pathology, education, and research in conjunction with Division of Diagnostic Pathology of the University Hospital*. Our aim is the construction of “pathology as clinical medicine” as well as “next-generation pathology for translational research”.

Dr. Shibahara and Dr. Morikawa were working as a visiting researcher in Mayo and Harvard University, USA, respectively. Dr. Nakaya moved to

Tokyo Medical College. Dr. Kunita moved here from University of Basel, and Dr. Matsusaka from Metropolitan Cancer and Infectious Disease Center, Komagome Hospital.

Four postgraduate students (Hibiya, Tanaka, Sung, Yoshida) finished the course and received Ph.D. In the new fiscal year, 2011, five new students will enter the postgraduate course, and there will be 16 postgraduates (including one foreign student).

We are responsible for the pathology practice of the University Hospital, and carrying forward the morphology-based research targeting human diseases.

As for the education of Pathology, we take charge of the following courses for the medical students; General Pathology course for the 1st grade students in collaboration with Department of Molecular Pathology, Systemic Pathology for the 2nd grade, Clinical Clerkship for the 3rd grade, and Bedside-learning (BSL) for the 4th grade students, respectively. Programs for postgraduates and junior residents are also included in our education activities.

We held 100th Annual Meeting of Japanese Society of Pathology from April, 28-30, 2011 at Yokohama Pacifico (President Fukayama, Vice President: Dr. Miyazono), with wish to recover from the Great East Japan Earthquake of March, 11, 2011, although we had to reduce the number of programs. The memorial ceremony was held on April 29, to celebrate the 100th Anniversary of the Japanese Society of Pathology in the very presence of Prince Hitachinomiya Masahito.

We had to postpone the Extension Lecture for Citizens “Autopsy and Medical Safety” on May 1, but could hold it on September 23 at Sanjo Kaikan, the University of Tokyo. The contents were included in the book, “Autopsy in Medical Practice”.

Clinical activities (diagnostic pathology and autopsy)

Together with Division of Diagnostic Pathology, we are responsible for the pathologic diagnosis and autopsy in the University Hospital (see the corresponding section of Division of Diagnostic Pathology).

Surgical pathology conferences are regularly held with each clinical division, and the cases of various tumors, including thoracic organs, liver and pancreato-biliary tract, urology, gynecology, breast, and orthopedics, as well as biopsy cases of kidney, skin and GI tract are discussed.

Clinico-pathological conferences (CPCs) for two autopsy cases are held every month in the hospital. Together with weekly autopsy conferences, they are useful for the education of clinical residents. Digest version of CPC slides is now open in the hospital, and we also started e-learning program for interns to facilitate the understanding of the CPC contents.

A model project for the survey analysis of deaths

related to medical treatment (DRMT) has been in operation since September 2005, and we continue to be a member of the autopsy inspection of the project.

Teaching activities

We take on General Pathology Course for the 1st grade of undergraduate students, especially in its morphological field. The course program and lecture notes are open to the public and available in UT Open Course Ware (<http://ocw.u-tokyo.ac.jp/>) .

Each class of Systemic Pathology Course and exercises are held in parallel with that of Systemic Medicine Course. Handouts are available in every half course of the pathological exercises, and all slides used in the course are accessible on our website as virtual slides (digital images of the slides).

Clinical clerkship for the 3rd grade, and BSL for the 4th grade are carried out. In BSL, following courses are included; autopsy pathologic practices with a case presentation for paired students, surgical pathologic practices using various tumor sections, and a tour of the pathology laboratory. The past examinations for graduation and Systemic Pathology for the second grade students and are referred to the website.

We also have charge of the lecture series of tumor pathology for the Cancer Profession Training Program in postgraduate school.

Research activities

The first major theme is “chronic inflammation and neoplasms”, especially Epstein-Barr virus (EBV) associated gastric carcinoma (GC) (Drs. Uozaki, Ushiku, Hino, Shinozaki, Matsusaka, and Kunita). We are focusing on mechanisms of abnormalities in CpG island methylation and microRNA molecules in the development and progression of EBV-associated GC (Matsusaka et al. ref.16)

The second major theme is ‘translational research pathology’. We are engaged in search of target molecules for cancer therapy by global analysis of expression profiles of various cancers, in collaboration with Research Center for Advanced Science and Technology (RCAST), the University of Tokyo. In addition, we take part in a global COE program,

“Comprehensive Center of Education and research for Chemical Biology of the Diseases” , in which we are investigating the morphological analysis of gene expression abnormalities of the key molecules for several diseases (Dr. Yamauchi). We discovered expression of gastric type claudin 18 in intraepithelial neoplasms of biliary and pancreatic ducts during the screening of cancer specific molecules (Drs. Shibahara, shinozaki) and pointed out the importance of gastric metaplasia for the development of cancer (Shinozaki et al. ref. 25, Tanaka et al. ref. 29).

Dr. Ishikawa's group is developing the methods analyzing genome information precisely to establish a field of pathology pathology.

The third theme is to re-evaluate the disease entities and tumor entities from the standpoint of classical histopathology. Dr. Ushiku reported a micro-papillary subtype of gastric carcinoma, with high frequency of lymph node metastasis (ref. 32) . Dr. Maeda discovered a subtype of ovarian tumor, microcystic stromal tumor of ovary, which was characterized by beta catenin mutation (ref. 16).

The research works closely related with pathology practice will be described in Diagnostic Pathology Division.

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