

Hematology

1. Staffs and Students

Professor	Osamu MIURA	
Junior Associate Professor	Ayako ARAI	
Assistant Professor	Tetsuya FUKUDA, Manabu OHKI,	Tetsuya KUROSU, Masahide YAMAMOTO
Hospital Staff	Aiko IGARASHI, Yoshihiro UMEZAWA	Ayako NOGAMI
Hospital Staff/Graduate Student	Shihoko WAKABAYASHI,	Takayuki SUZUKI
Graduate Student	Minako JINTA, Gaku OSHIKAWA, Nan WU	Toshikage NAGAO, Ken WATANABE,

2. Purpose of Education

The major objective of the course is to understand the pathophysiology of blood cells, blood cell-forming organs, and hemostasis to provide a basis for rational diagnosis and treatment of their disorders. We offer the lectures of basic knowledge of hematological diseases for the 4th grade medical students, and we provide the opportunity to study process of diagnosis and management of hematological disorder for the 5th and 6th grade medical students as clinical clerkship, CC1 and CC3.

In our clinical residency the junior resident can have the opportunity to obtain knowledge and skills for dissolving hematological, oncological and infectious problem.

The senior residents are making profound efforts in their clinical experience to be hematological experts.

3. Research Subjects

- 1) Cell signaling for the hematopoiesis and hematological oncogenesis
- 2) Molecular mechanism of lymphomagenesis
- 3) Regulation of hematopoietic cell death after chemotherapeutic reagents
- 4) Mechanism of resistance against tyrosine kinase inhibitors
- 5) Mechanism of EB virus associated disease

4. Clinical Services

We provide the highest quality of patient care for a wide spectrum of blood diseases and cancer.

5. Publications

1. Kurosu T, Wu N, Oshikaw G, Kagechika H, Miura O. Enhancement of imatinib-induced apoptosis of BCR/ABL-expressing cells by nutlin-3 through synergistic activation of the mitochondrial apoptotic pathway. *Apoptosis*. 2010;15:608-620
2. Oshikawa G, Kurosu T, Arai A, Murakami N, Miura O. Clonal evolution with double Ph followed by tetraploidy in imatinib-treated chronic myeloid leukemia with e19a2 transcript in transformation. *Cancer Genet Cytogenet*. 2010;199:56-61
3. Arai A, Imadome K, Fujiwara S, Miura O. Autoimmune hemolytic anemia accompanied by reactivation of an Epstein-Barr virus infection with suppressed CTL response to EBV-infected cells in an elderly man. *Intern Med*. 2010;49:325-329
4. Kuninaka N, Kurata M, Yamamoto K, Suzuki S, Umeda S, Kirimura S, Arai A, Nakagawa Y, Suzuki K, Kitagawa M. Expression of Toll-like receptor 9 in bone marrow cells of myelodysplastic syndromes is down-regulated during transformation to overt leukemia. *Exp Mol Pathol*. 2010;88:293-298
5. Nakagawa Y, Suzuki K, Hirose T, Chou T, Fujisawa S, Kida M, Usuki K, Ishida Y, Taniguchi S, Kouzai Y, Tomoyasu S, Miyazaki K, Higashihara M, Ando K, Aoki S, Arai A, Akiyama N, Hatake K, Okamoto S, Dan K, Ohyashiki K, Urabe A. Clinical efficacy and safety of biapenem for febrile neutropenia in patients with underlying hematopoietic diseases: a multi-institutional study. *J Infect Chemother*. 2010;17:58-67
6. Nakauchi Y, Takase H, Sugita S, Mochizuki M, Shibata S, Ishiwata Y, Shibuya Y, Yasuhara M, Miura O, Arai A. Concurrent administration of intravenous systemic and intravitreal methotrexate for intraocular lymphoma with

central nervous system involvement. *Int J Hematol.* 2010;92:179-185

7. Okuhashi Y, Itoh M, Arai A, Nara N, Tohda S. Gamma-secretase inhibitors induce erythroid differentiation in erythroid leukemia cell lines. *Anticancer Res.* 2010;30:4071-4074