Department of Nephrology

1. Staffs and Students (April, 2010)

Professor	Sei SASAKI	
Associate Professor	Shinichi UCHIDA,	Tatemitsu RAI (Dept. of Blood Purification),
	Yumi NODA (Dept. of Chronic Kidney Disease, April~)	
Junior Associate Professor	Tomokazu OKADO	
Assistant Professor	Akihito OHTA,	Eisei SOHARA (Dept. of Blood Purification),
	Eriko OHTA (Dept. of Blood Purification),	
	Shotaro NAITO (Dept. of Chronic Kidney Disease, April~)	
Medical Fellow	Teiko OHASHI	
Hospital Staff	Soichiro IIMORI,	Ayako YOKOTANI,
	Shunsuke IWAMOTO,	Chihiro SHIRAHAMA (Dept. of Blood Purification),
	Keita KUSAKA (Dept. of Blood Purification)	
Resident	Hisako TOGO	
Technician	Motoko CHIGA	
Secretary	Asa MURANO,	Miki SAKIYAMA,
	Yukiko ITO	
Graduate Student	Kayoko ETO,	Naohiro NOMURA,
	Katsuyuki OI,	Gulibaha TALATI,
	Mai WAKABAYASHI,	Hidenori NISHIDA,
	Muhammad Zakir Hossain Khan,	
	Koichiro SUSA,	Kiyoshi ISOBE,
	Takayasu MORI,	Yuichi INOUE

2. Purpose of Education

The policy of the *Department of Nephrology* is to accomplish trustworthy medicine and to educate excellent academic scientists and nephrologists.

Our department is one of the initial institutes that started the hemodialysis therapy in Japan, and thus, has a long experience of clinical practice of kidney diseases. Through the activities our department has brought up a number of leading nephrologists who contribute to establishing nephrology in Japan and in the world. Academic research is another important mission of our department. Research from bench experiments to clinical studies has been performed to understand pathogenesis of diseases and to develop new therapeutic strategies. Especially, our study on "water-electrolyte transport in the kidney" is well known worldwide for its originality and high quality. We hope new young scientists and physicians join us for future science and nephrology.

3. Research Subjects

We have been studying renal membrane transporters and channels for more than 20 years. Most of the AQP water channels and CLC chloride channels were cloned in our laboratory in 1990s (***Nature1993, PNAS1994, JBC1993&1994, Neuron1994, etc***) and the physiological roles in vivo have been analyzed by generating the KO mice (***Nature Genet1999, PNAS2006, etc***). Recently, we are interested in regulators of transporters and channels (***JCB2008***), and discovered a novel kinase cascade (WNK-OSR1/SPAK-NCC) regulating NaCl balance in the body (***Cell Metab 2007, Hum Mol Genet 2010***). Based on the molecular mechanisms we identified, we hope to find the way to regulate renal transporters and channels.

4. Clinical Services

We are taking care of patients with a variety of kidney diseases including acute kidney injury, chronic kidney disease, blood purification, and renal transplantation. We routinely perform renal biopsy.

5. Publications