

Cellular Physiological Chemistry

1. Staffs and Students (April, 2010)

Professor	Ikuo Morita	
Associate Professor	Ken-ichi Nakahama	
Junior Associate Professor	Hiroshi Fujita, Takako Hase, Mayumi Abe	
Assistant Professor	Kotaro Kato	
Tokuninn Assistant Professor (GCOE)	Olga Safronava	
Tokuninn Assistant Professor	Masako Akiyama	
Graduate Student	Yoko Aoi,	Praween Wayakanon,
	Takeshi Watanabe,	
Research Student	Jizhong Yuan,	Atsuko Taki,
	Noriko Sudo,	Taro Koshiishi,
	Li Xiang Lan	
Associate Professor (Nano Medicine DNP)	Motohiro Komaki	
Assistant Professor (Nano Medicine DNP)	Kengo Iwasaki	
Research Student (Nano Medicine DNP)	Yasuyuki Kimura	

2. Purpose of Education

For undergraduate students. We have some classes in biological chemistry for the third grader. In these classes, the students should understand basic biochemistry and physiology under healthy/diseased conditions.

For graduate students. These students can choose the one of themes in our lab. These students are expected to solve the problems by themselves. However, appropriate suggestions will be given by at least three supervisors whenever you want.

3. Research Subjects

- 1, Regulatory mechanism of angiogenesis and application to regenerative medicine
- 2, Bone remodeling and cell communication
- 3, Inflammation under hypoxic conditions (epigenetic control of gene expression)
- 4, Life of gap junction

4. Publications

Original Article

1. Safronova O, Morita I. Transcriptional pathways in hypoxic inflammation. *Recent Advances Research Updates*, ISSN-0972-4699, 11:23-27, 2010
2. Yuan J, Akiyama M, Nakahama K, Sato T, Uematsu H, Morita I. The effects of polyunsaturated fatty acids and their metabolites on osteoclastogenesis in vitro. *Prostaglandins Other Lipid Mediat*, 92:85-90, 2010
3. Yoshida T, Komaki M, Hattori H, Negishi J, Kishida A, Morita I, Abe M. Therapeutic angiogenesis by implantation of a capillary structure cinstututed of human adipose tissue microvascular endothelial cells.
4. Shimada N, Ohno-Matsui K, Iseki S, Koike M, Uchiyama Y, Wang J, Yoshida T, Sato T, Peters C, Mochizuki M, Morita I. Cathepsin L in bone marrow-derived cells is required for retinal and choroidal neovascularization. *Am J Pathol*, 176(5):2571-80, 2010
5. Yoshida T, Sato Y, Morita I, Abe M. Pigpen, a nuclear coiled body component protein, is involved in angiogenesis. *Cancer Sci*, 2010
6. Akahori T, Kobayashi A, Komaki M, Hattori H, Nakahama K, Ichinose S, Abe M, Takeda S, Morita I. Implantation of capillary structure engineered by optical lithography improves hind limb ischemia in mice. *Tissue Eng Part A*, 16(3):953-9,2010
7. Nakalekha C, Yokoyama C, Miura H, Alles N, Aoki K, Ohya K, Morita I. Increased bone mass in adult prostacyclin-deficient mice. *J Endocrinol*, 204(2):125-33, 2010
8. Nakahama K. Cellular communication in bone homeostatis and repair. *Cell. Mol. Life Sci.*, 67:4001-4009, 2010