

Faculty of Applied Biological Sciences  
Gifu University

Annual Report of Research Activities 2013

Vol. 10

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## I Research Achievement

### 1) Academic Paper

#### 【Course of Applied Life Science】

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*Japanese Journal of Zoo and Wildlife Medicine*, Vol.18(3), pp.99-105, 2013

※1 Also Recorded on Course of Agricultural and Environmental Science

## 2) Book

### 【Course of Agricultural and Environmental Science】

- [1] **Takeo Onishi**, Tahmina Khan, **Ken Hiramatsu**  
 “Impact of landuse change on flooding patterns”  
*Dhaka Megacity*, pp.163-175, 2013/06

## 3) Others

### 【Course of Applied Life Science】

- [1] **Arahata K**  
 “The Agricultural Economics Society of Japan”  
 The Union of National Economic Associations in Japan, Information Bulletin of The Union of National economics Associations in Japan, Vol.33, pp.1-7, 2013/06



## II Lectures, Conference Presentation, etc.

### 1) Conference Presentation

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- [1] Akiharu Ueki, Johan Unga, Shigeru Kawakami, **Hiromune Ando**, **Hideharu Ishida**, Fumiyoshi Yamashita, Mitsuru Hashida, **Makoto Kiso**  
“Synthesis and Evaluation of Novel Sialyl Lewis X-coated liposomes for Positive Targeting in DDS”  
The 32nd Annual Meeting of Japanese Society of Carbohydrate Research (Osaka), 2013/08/05-07
- [2] Akiharu Ueki, Johan Unga, Shigeru Kawakami, **Hiromune Ando**, **Hideharu Ishida**, Fumiyoshi Yamashita, Mitsuru Hashida, **Makoto Kiso**  
“Synthesis and Evaluation of Novel Sialyl Lewis X-coated liposomes for Positive Targeting in DDS”  
5th iCeMS Retreat (Shiga), 2013/09/06-07
- [3] **Akio Ebihara**, Erika Abe, Ayumi Inayama, Takashi Yamaguchi, Akiyoshi Boku, Satoshi Ohno, Takashi Yokogawa, Kazuya Nishikawa, **Tsutomu Nakagawa**, **Fumiaki Suzuki**  
“A novel production method of recombinant sheep angiotensinogen amenable for clinical assay of plasma renin concentration”  
The Annual Meeting of European Society of Hypertension 2013 (Milan, Italy), 2013/06/14-17
- [4] Chiharu Suzuki-Nakagawa, Misa Nishimura, Tomoko Tsukamoto, Sho Aoyama, **Akio Ebihara**, **Fumiaki Suzuki**, **Tsutomu Nakagawa**  
“Extracellular domain of the (pro)renin receptor participates in dimerization”  
High Blood Pressure Research 2013 Scientific Sessions (New Orleans, USA), 2013/09/11-13
- [5] Hideki Tamai, Megumi Yamagishi, Ritsuko Hosoda-Yabe, **Akihiro Imamura**, **Tomio Yabe**, **Hiromune Ando**, **Hideharu Ishida**, **Makoto Kiso**  
“Synthesis and structure-activity relationship study on neuritegenic ganglioside LLG-3 from Echinoderm”  
5th iCeMS Retreat (Shiga), 2013/09/06-07
- [6] **Kohei Nakamura**, Naoya Shinzato, Seikoh Saitoh, Hiroaki Aoyama, **Kazuhiro Takamizawa**  
“Analysis on Alkane-oxidizing Methanogenic Community from a Production Water of an Oil Indication in Japan.”  
4th International Symposium on Applied Microbiology and Molecular Biology in Oil Systems (Rio de Janeiro, Brazil), 2013/08/25-28
- [7] Miku Konishi, Kenichi Suzuki, **Akihiro Imamura**, **Hiromune Ando**, **Hideharu Ishida**, Akihiro Kusumi, **Makoto Kiso**  
“Development of fluorescent ganglioside GD1b for the single molecule tracking of raft domain”  
The 32nd Annual Meeting of Japanese Society of Carbohydrate Research (Osaka), 2013/08/05-07
- [8] Miku Konishi, Kenichi Suzuki, **Akihiro Imamura**, **Hiromune Ando**, **Hideharu Ishida**, Akihiro Kusumi, **Makoto Kiso**  
“Synthesis and functional evaluation of fluorescent ganglioside GD1b useful for live imaging of cell membrane”  
The 5th Asian Communications of Glycobiology and Glycotechnology (the 5th ACGG) (Khon Kaen University, Thailand), 2013/10/14-18
- [9] Miku Konishi, Naoko Komura, Kenichi Suzuki, **Akihiro Imamura**, **Hiromune Ando**, **Hideharu Ishida**, Akihiro Kusumi, **Makoto Kiso**  
“Development of fluorescent ganglioside GD1b and GT1b for the single molecule tracking of raft domain”  
Team meeting for Japan Society for the Promotion of Science (JSPS) Grants-in-Aid for Scientific Research on Innovative Areas (Shiga), 2013/07/23-25
- [10] Miku Konishi, Naoko Komura, Kenichi Suzuki, **Akihiro Imamura**, **Hiromune Ando**, **Hideharu Ishida**, Akihiro Kusumi, **Makoto Kiso**  
“Development of fluorescent ganglioside GD1b and GT1b for the single molecule tracking of raft domain”  
5th iCeMS Retreat (Shiga), 2013/09/06-07

- [11] Mitsutaka Nishida, Keitaro Nagami, Yoshihiro Kanamaru, **Tomio Yabe**  
 “Expression of heparan sulfate 6-O-sulfotransferase-1 is stimulated by adrenaline via Src-ERK signaling pathway in L-M cells”  
 International Proteoglycan Meeting (Frankfurt, Germany), 2013/08/25-29
- [12] Mizuho Inagaki, Yoshitaka Nakamura, Takeshi Takahashi, **Tomio Yabe**, **Tohru Suzuki**, Toyoko Nakagomi, Osamu Nakagomi, Yoshihiro Kanamaru  
 “The utilization of concentrated sweet whey against human intestinal gastroenteritis”  
 IDF World Dairy Summit 2013, (Yokohama), 2013/10/28-11/01
- [13] **Nakano K**  
 “Freshness evaluation of edamame by stachyose detection.”  
 International Symposium on Quality Management of Fruits and Vegetables for Human Health (FVHH2013) (Bangkok, Thailand), 2013/08/05-08
- [14] **Nakano K**  
 “A new quantitative evaluation method for freshness of vegetables for reducing postharvest losses.”  
 International Conference Sustainable Agriculture, Food, and Energy 2013 (SAFE2013) (Padang, Indonesia), 2013
- [15] **Nakano K**  
 “Freshness assessment of fresh produces for preventing postharvest losses.”  
 ASEAN Regional Conference on Food Security 2013 (ARCoFS2013) (Penang, Malaysia), 2013/10/08-10
- [16] Naoko Komura, Kenichi Suzuki, **Hirumune Ando**, **Hideharu Ishida**, Akihiro Kusumi, **Makoto Kiso**  
 “Development of photoaffinity neurogenic gangliosides”  
 Team meeting for Japan Society for the Promotion of Science (JSPS) Grants-in-Aid for Scientific Research on Innovative Areas (Shiga), 2013/07/23-25
- [17] Naoko Komura, Kenichi Suzuki, **Hirumune Ando**, **Hideharu Ishida**, Akihiro Kusumi, **Makoto Kiso**  
 “Synthesis and evaluation of fluorescent gangliosides for the single molecule imaging of raft markers”  
 The 32nd Annual Meeting of Japanese Society of Carbohydrate Research (Osaka), 2013/08/05-07
- [18] Naoko Komura, Kenichi Suzuki, **Hirumune Ando**, **Hideharu Ishida**, Akihiro Kusumi, **Makoto Kiso**  
 “Development of photoaffinity ganglioside probes for imaging of raft-associated signaling”  
 5th iCeMS Retreat (Shiga), 2013/09/06-07
- [19] Naoko Komura, Kenichi Suzuki, **Hirumune Ando**, **Hideharu Ishida**, Akihiro Kusumi, **Makoto Kiso**  
 “Development of a-series gangliosides probes for imaging of raft-associated signaling”  
 The 5th Asian Communications of Glycobiology and Glycotechnology (the 5th ACGG) (Khon Kaen University, Thailand), 2013/10/14-18
- [20] Rita Pal, Naoko Komura, **Akihiro Imamura**, **Hirumune Ando**, Yu Tokura, Susumu Kitagawa, Takafumi Ueno, **Hideharu Ishida**, **Makoto Kiso**  
 “Study on culturing system for pluripotent stem cells utilizing carbohydrate-carbohydrate interactions”  
 The 32nd Annual Meeting of Japanese Society of Carbohydrate Research (Osaka), 2013/08/05-07
- [21] Rita Pal, Naoko Komura, **Akihiro Imamura**, **Hirumune Ando**, Yu Tokura, Susumu Kitagawa, Takafumi Ueno, **Hideharu Ishida**, **Makoto Kiso**  
 “Study on culturing system for pluripotent stem cells utilizing carbohydrate-carbohydrate interactions”  
 5th iCeMS Retreat (Shiga), 2013/09/06-07
- [22] Sayumi Hirose, Kaoru Tomatsu, **Emiko Yanase**  
 “Formation Mechanism of Oolong Tea Polyphenol : Oolongtheanins”  
 The 5th international conference on O-CHA culture and science(Shizuoka), 2013/11/06-08
- [23] **Tomoyuki Nakagawa**, Shuki Fujimura, Hiroya Yurimoto, Yasuyoshi Sakai , **Takashi Hayakawa**  
 “Oxygen conditions and mitochondrial respiratory function influence expression level of methanol-inducible peroxisomal proteins and peroxisome morphology in the methylotrophic yeast.”  
 BioMicroWorld 2013: 5th International Conference on Environmental, Industrial and Applied Microbiology (Madrid, Spain) , 2013/10/02-04

- [24] **Yabe T**, Hosoda-Yabe R, Sakai H, **Kanamaru Y**, **Kiso M**  
 “Developing a novel detection system for glycosaminoglycans using by photo-reactive probe”  
 International Proteoglycan Meeting (Frankfurt, Germany), 2013/08/25-29
- [25] **Yabe T**, Itoh C, Honda A, Ishikawa M, Nakamura A, Yamamoto H, Ikami T, **Kanamaru Y**  
 “A specific structure in the pectin from prune recognizes fibronectin and affects on the expression level of polyamines in Caco-2 cells”  
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- [1] Funasaka N, **Kusuda S**, Kogi K, Yoshioka M  
 “Fecal sex steroid analysis for estimation of reproductive status in free-ranging Indo-Pacific bottlenose dolphins *Tursiops aduncus*”  
 20th Biennial Conference on the Biology of Marine Mammals (New Zealand), 2013/12/09-13
- [2] **Hiroyuki Koyama**  
 “STOP1 Regulating System; A Root Module for Adapting to Acid Soil Environment, and for Enhancing Plant Immunity.”  
 BIT's 3rd Annual World Congress of Agriculture 2013 (Hangzhou, China), 2013/09/24
- [3] Ikeguchi, A., K. Nonaka, K. Kumagai, T. Ajisaka, S. Ii, **S. Miyagawa**, M. Shinmoto  
 “Hunting-gathering, trace element, and social change: case studies in Laos and Papua New Guinea.”  
 IGU 2013 - KYOTO REGIONAL CONFERENCE (Kyoto), 2013/08/04-09
- [4] Liu J, Taniguchi A, **Matsubara Y**, Kojima T, Takahashi K.  
 “PCR-SSCP analysis and disease control by the application of biological and chemical agents in asparagus decline.”  
 International Asparagus Symposium (China), 2013/10/16-18
- [5] **Matsubara Y**, Ishioka C, Maya M.A, Liu J, Takami Y.  
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 Greensys (Korea), 2013/10/06-09
- [6] Mitamura R, Nomoto M, Tokizawa M, Akimitsu K, **Yamamoto YY**, Tada Y  
 “Nitric oxide activates JAZ-mediated signaling pathway in Arabidopsis”  
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- [7] Mori T, Nomoto M, Tokizawa M, Akimitsu K, **Yamamoto YY**, Tada Y  
 “Prediction of the core cis-regulatory elements responsible for salicylic acid-dependent gene expression”  
 ファイトジーンの可能性と未来 VI (国際学会) (Takamatsu), 2013/10/28
- [8] Ono, E., M. Umemura, T. Ishida, M. Komori, C. Takenaka, **S. Miyagawa**  
 “Geochemical environment and its impact for land use in cases of Laos and Papua New Guinea.”  
 IGU 2013 - KYOTO REGIONAL CONFERENCE (Kyoto), 2013/08/04-09

**【Joint Department of Veterinary Medicine】**

- [1] Kenichi Takahashi, **Naotaka Ishiguro**, **Yasuo Inoshima**  
 “Transient PrPSc propagation in dead cells”  
 Asian Pacific Prion Symposium 2013 (Nagasaki), 2013/07/21
- [2] Tomoaki Murakami, Naeem Muhammad, **Yasuo Inoshima**, **Tokuma Yanai**, Masanobu Goryo, **Naotaka Ishiguro**  
 “Experimental transmission of AA amyloidosis in vaccinated white hens”  
 The 4th UGSVS-SNU Joint Workshop (Tokyo), 2013/02/22

- [3] Tomoaki Murakami, Naeem Muhammad, **Yasuo Inoshima**, **Tokuma Yanai**, Masanobu Goryo, **Naotaka Ishiguro**  
“Experimental transmission of AA amyloidosis in vaccinated white hens”  
Asian Pacific Prion Symposium 2013 (Nagasaki), 2013/07/21

## 2) Academic lecture

### 【Course of Applied Life Science】

- [1] **Hirumune Ando**, **Makoto Kiso**  
“Novel fluorescent ganglioside probe for the single molecule imaging of raft domain”  
The 14th International Membrane Research Forum (Kyoto), 2013/03/15-17 (Invitation lecture).
- [2] Naoko Komura, **Hirumune Ando**, Kenichi Suzuki, Rahul Chadda, Hisae Tsuboi, Taisuke Ikeda, Kenji Tanaka, **Hideharu Ishida**, Akihiro Kusumi, **Makoto Kiso**  
“Development of Novel Fluorescent Glycolipid Probe for Single Molecule Imaging of Mesoscale Domain in Living Cell Membrane”  
15th Asian Chemical Congress (15th ACC) (Singapore), 2013/08/19-23 (Invitation lecture)

### 【Course of Agricultural and Environmental Science】

- [1] **Masanobu Kimura**  
“Spatial management of sediment discharge and proper equipment for drainage”  
International workshop on current status and future issues of urban erosion control works (II) (Chuncheon, Korea), 2013/09 (Invitation lecture)



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