

## Yasuhiro FUJIWARA Ph.D. *CURRICULUM VITAE*

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### **EDUCATION and TRAINING**

*The Jackson Laboratory*, Bar Harbor, ME USA (Jan. 2013-) Sept. 2013 – Current  
Postdoctoral associate (Mary Ann Handel's Lab)

*Okayama University*, Okayama, Japan, Oct. 2008- Sept. 2013  
Ph.D. in Biological Science, Oct 2010- Sept 2013, Area of Specialization: Spermatogenesis and meiosis  
M.S. in Biological Sciences, Oct 2008- Sept 2010  
Ph.D. and M.S. advisor: Dr. Tetsuo Kunieda

*University of Hawaii at Manoa*, Honolulu, Hawaii, Jan. 2004- May 2008  
B.S. in Animal Science  
Minor in Music

### **PROFESSIONAL EMPLOYMENT**

*Okayama University*, Okayama, Japan, 2011- 2012  
Research Assistant (Tetsuo Kunieda's Lab)

### **GRANT, AWARDS and HONORS**

- Bounty for graduate students of Okayama University, title "Genetic and histological analysis of spermatogenesis in *repro57*", Okayama University, 2010
- Sasakawa research grant from the Japan Society for the Promotion of Science (22-426). Title "Genetic and histological analysis of spermatogenesis in *repro57*" 2009
- Asian Pacific Islander Organization (APIO) Scholarship 2006-2008
- Dean's List, University of Hawaii at Manoa 2005

### **RESEARCH EXPERIENCE**

*Postdoctoral Research*: The Jackson Laboratory, Sept. 2013-current

- Study on transcriptional regulation of *Prdm9* in mammalian meiosis
- Investigation of the role of Senataxin in mammalian meiosis  
\*Started from Jan 2013 as a visiting graduate student
- Meiotic defects in hybrid mice between *domesticus* and *molossinus*

*Doctoral Research*: Department of Natural Science and Technology, Okayama University, Oct. 2008- Sept. 2013

- Study on the role of *Stx2* gene in spermatogenesis of mice
- Genetic and histological analysis of spermatogenesis in infertile *repro57* mice
- Investigation of the role of *Npr2* in mouse meiosis using SLW mice

*Student help*: Cancer Research Center of Hawaii, University of Hawaii at Manoa, 2006 – 2008

- Assistance of experiments, Laboratory duties (Dr. Bonnie-Warn Cramer, Dr. Alan Lau, and Dr. Patricia Lorenzo's Lab)

*Intern*: U.S. Fish & Wildlife Service, A Bureau in the Department of Interior, U.S. Government, 2007

- Analysis and observation of field investigation for marine organisms

### **RESEARCH INTERESTS**

- Meiotic regulation in spermatogenesis

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- General spermatogenesis in a variety of species, including mammals and fish
- Genomic Genetics
- Reproductive control in laboratory animals, domestic animal, and human

## **TEACHING EXPERIENCE**

Teaching Assistant: Applied genetics laboratory, Okayama University,

2008-2012

- Laboratory for Applied Genetics Lab class

Teaching Intern: Biology laboratory, University of Hawaii at Manoa,

2008

- Laboratory (Taxonomy and Anatomy) and field trips

## **PUBLICATIONS**

1. **Yasuhiro Fujiwara**, 2014, Differential Gene Expression Revealed by Transcriptomic Analyses of Male Germ Cells, *The Journal of Animal Genetics*, review article, in press
2. **Yasuhiro Fujiwara**, Hiroaki Matsumoto, Kouyou Akiyama, Anuj Srivastava, Mizuho Chikushi, Mary Ann Handel, Tetsuo Kunieda, 2014, An ENU-induced mutation in mouse *Rnf212* is associated with male meiotic failure and infertility, *Reproduction*. In press
3. Chizuru Sogawa, **Yasuhiro Fujiwara**, Satoshi Tsukamoto, Yuka Ishida, Yukie Yoshii, Takako Furukawa, Tetsuo Kunieda, and Tsuneo Saga, 2014, Mutant phenotype analysis suggests potential roles for C-type natriuretic peptide receptor (NPR-B) in male mouse fertility, *Reproductive Biology and Endocrinology*. 12(1):64
4. **Yasuhiro Fujiwara**, Narumi Ogonuki, Kimiko Inoue, Atsuo Ogura, Mary Ann Handel, Junko Noguchi, Tetsuo Kunieda, 2013, t-SNARE Syntaxin2 (STX2) is Implicated in Intracellular Transport of Sulfoglycolipids during Meiotic Prophase in Spermatogenesis, *Biology of Reproduction*, 88(6): Article 141, 1-9
5. Yasuhiro Kawai, Junko Noguchi, Kouyou Akiyama, Yuriko Takeno, **Yasuhiro Fujiwara**, Shimpei Kajita, Takehito Tsuji, Kazuhiro Kikuchi, Hiroyuki Kaneko, Tetsuo Kunieda, 2011, A missense mutation of the Dhh gene is associated with male pseudohermaphroditic rats showing impaired Leydig cell development. *Reproduction*. 141(2): 217-25.

## **PRESENTATIONS**

1. ○Petko M. Petkov, Michael Walker, Christopher L. Baker, Guru Ananda, **Yasuhiro Fujiwara**, Mary Ann Handel, Gregory W. Carter, Kenneth Paigen, The Y-chromosome histone demethylase KDM5d influences H3K4me3 chromatin remodeling during meiotic progression, *The 28<sup>th</sup> International Mammalian Genome Conference*, Bar Harbor, USA, Oct 2014
2. ○Robyn L. Ball, **Yasuhiro Fujiwara**, Fengyun Sun, Mary Ann Handel, Gregory W. Carter, Transcriptional deconvolution of meiotic substages using RNA-seq and cytological analysis of the first wave of spermatogenesis in the mouse, *The 28<sup>th</sup> International Mammalian Genome Conference*, Bar Harbor, USA, Oct 2014
3. ○**Yasuhiro Fujiwara**, Robyn L. Ball, Fengyun Sun, Gregory W. Carter, Mary Ann Handel, Transcriptional deconvolution of meiotic substages using RNA-seq and cytological analysis of the first wave of spermatogenesis in the mouse, *Society for the Study of Reproduction*, Michigan, USA, July 2014
4. ○Mizuho Chikushi, **Yasuhiro Fujiwara**, Hiroaki, Matsumoto, Kouyou Akiyama, Takehito Tsuji, Tetsuo Kunieda, Phenotype analysis of ENU-induced infertile female *repro57* mice, Japanese Conference for Laboratory Animal Science and Technology, Sapporo, May 2014
5. ○**Yasuhiro Fujiwara**, Mizuho Chikushi, Mary Ann Handel, Tetsuo Kunieda, The *repro57* mutation causes defective meiotic recombination and infertility in male mice, *Society for the Study of Reproduction*, Montreal, Canada, July 2013
6. ○**Yasuhiro Fujiwara**, Narumi Ogonuki, Kimiko Inoue, Atsuo Ogura, Junko Noguchi, Tetsuo Kunieda, t-SNARE Syntaxin2 is Required for Transportation of Glycolipids and Stable Formation of Intercellular Bridges during Spermatogenesis, *The 58<sup>th</sup>/60<sup>th</sup> NIBB Conference, Germline*, P06/STII-5, Okazaki, Aichi, Japan, July 2012
7. ○Chizuru Sogawa, **Yasuhiro Fujiwara**, Satoshi Tsukamoto, Yuka Ishida, Yukie Yoshii, Takako Furukawa, Tetsuo Kunieda, Tsuneo Saga, CNP Receptor Gene (*Npr2*) is Involved in the Regulation of Blood-Testis Barrier and Spermatogenesis in Mouse. *The 58<sup>th</sup>/60<sup>th</sup> NIBB Conference, Germline*, P44, Okazaki, Aichi, Japan, July 2012
8. ○**Yasuhiro Fujiwara**, Junko Noguchi, Tetsuo Kunieda, Syntaxin2 (*Stx2*) plays an important role in stability of plasma membrane of spermatocytes during meiosis of mouse spermatogenesis, *The 34<sup>th</sup> Molecular Biology Society of Japan annual meeting*, IP-914, Yokohama, Japan, 2011

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9. ○**Yasuhiro Fujiwara**, Narumi Ogonuki, Kimiko Inoue, Atsuo Ogura, Takehito Tsuji, Junko Noguchi, Tetsuo Kunieda, Roles of Syntaxin2/Epimorphin (*Stx2/Epim*) in progression of meiosis during mouse spermatogenesis, *The 2<sup>nd</sup> World Congress on Reproductive Biology*, Cairns, Australia, 2011
10. ○**Yasuhiro Fujiwara**, Kouyou Akiyama, Yuka Asano, Takehito Tsuji, Junko Noguchi, Tetsuo Kunieda, The roles of Syntaxin2/Epimorphin (*Stx2/Epim*) in progression of meiosis during spermatogenesis, *Society for the Study of Reproduction*, 393, Wisconsin, USA, 2010
11. ○**Yasuhiro Fujiwara**, Kouyou Akiyama, Yuka Asano, Takehito Tsuji, Junko Noguchi, Tetsuo Kunieda, Investigation of the role of Syntaxin2/Epimorphin (*Stx2/Epim*) in spermatogenesis, *57<sup>th</sup> Japanese Association for Laboratory Animal Science annual meeting*, 20-59, Kyoto, Japan, 2010
12. ○**Yasuhiro Fujiwara**, Kouyou Akiyama, Yuka Asano, Takehito Tsuji, Junko Noguchi, Tetsuo Kunieda, Investigation of the role of Syntaxin2/Epimorphin (*Stx2/Epim*) in spermatogenesis using *repro34*, *Okayama University COE annual meeting*, Poster number 4, Okayama Japan, 2010
13. ○**Yasuhiro Fujiwara**, Kouyou Akiyama, Yuka Asano, Takehito Tsuji, Junko Noguchi, Tetsuo Kunieda, Study of male-infertile *repro34* mutant mouse with mutation on Syntaxin2/Epimorphin (*Stx2/Epim*), *102<sup>nd</sup> Society of Reproduction and Development annual meeting*, OR2-19, Nara, Japan, 2009

## **References**

1. **Mary Ann Handel, Ph.D.**  
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FAX: 207-288-6073  
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Professor of Graduate School of Environmental and life Science  
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