



## The Mouse as an Instrument for Ear Research III

September 18-21, 2008

### Meeting Agenda

*All talks will take place in the Clarence Cook Little Auditorium unless otherwise specified*

#### **Thursday, September 18th**

- 4:00pm Organizer/Speaker Meeting in the Clarence Cook Little Auditorium
- 5:00 – 6:30pm Registration and Welcome Reception for all in the LLC Lobby

#### **Friday, September 19th**

- 8:30am Late Registration

#### **Session I – Chair - Kenneth Johnson, Ph.D., *The Jackson Laboratory***

- 9:00 Overview of Meeting – Kenneth Johnson, Ph.D., *The Jackson Laboratory*
- 9:15 Basic Mouse Genetics – *David Bergstrom, Ph.D., The Jackson Laboratory*
- 9:45 Mouse Husbandry for Ear Research and Strain Nomenclature – *Leona Gagnon, B.A., The Jackson Laboratory*
- 10:15 Morning Break - *Group Photo in front of NRB*

#### **Session II - *Ear Development* - Chair – Sherri Jones, Ph.D. *East Carolina University***

- 11:00 -1:00pm Sensory Development in the Mouse Inner Ear – *Amy Kiernan, Ph.D., University of Rochester*
- Hair Cell Polarity – *Ping Chen, Ph.D., Emory University*
- Inner ear-specific gene manipulation by Pax2-Cre BAC transgenic mice– *Takahiro Ohyama, Ph.D., House Ear Institute*
- AbstractTalk: Characterization of Clarin-1 Knockout mouse – Ruishuang Geng, Ph.D., Case Western Reserve University*
- 1:00 – 2:00 Lunch and posters

#### **Session III - *Proteomics* - Chair – Kumar Alagramam, Ph.D., *Case Western Reserve***

*University*

- 2:00 – 4:00      A targeted Coch missense mutation: a knock-in mouse model for DFNA9 late-onset hearing loss and vestibular dysfunction–  
*Cynthia Morton, Ph.D, Harvard Medical School*
- Mass spectrometry analysis of hair bundle proteins –  
*Jung-Bum Shin, M.D., Ph.D., Oregon Health & Science University*
- Proteomic Analysis of Cochlear Pathologies –  
*Donald Coling, Ph.D., Buffalo Hearing Research Laboratory*
- Mouse Model for Deafness in Usher 1F: A Proteomic Study –  
*Kumar Alagramam, Ph.D., Case Western Reserve University*
- Panel Discussion

**Demonstrations (SCR)**

- 4:00-5:00      Eye Movement Recording – *John Stahl, M.D., Ph.D., Case Western Reserve University*
- 5:00-6:00      The Mouse as a Model in Noise-Induced Hearing Loss –  
*Rick Davis, Ph.D., National Institute for Occupational Safety and Health*
- 6:30              Cocktails at The Walsh House of The Bar Harbor Regency Hotel
- 7:00pm          Lobster Banquet at The Walsh House of The Bar Harbor Regency Hotel

**Saturday, September 20<sup>th</sup>**

**Session IV - Chair – *Qing Yin Zheng, M.D., Case Western Reserve University***

- 8:30am          Strain Background Effects – *Kenneth Johnson, Ph.D., The Jackson Laboratory*
- 8:50              Mouse Models for Otitis Media - *Qing Yin Zheng, M.D., Case Western Reserve University*
- 9:10              Mouse Models for Induced Otitis Media – *Dennis Trune, Ph.D., Oregon Health & Science University*
- 9:30              The tectorial membrane: One slice of a complex cochlear sandwich-*Ian Russell, Ph.D., University of Sussex*

- 9:50 Does the brainstem connect before the cochlea can direct? -  
*George Spirou, Ph.D., West Virginia University School of  
Medicine*
- 10:10 Eye Movements Used to Assay Vestibular Function - *John Stahl,  
MD., Ph.D., Case Western Reserve University*
- 10:30 Morning Break
- Session V - Chair –Rick Davis, Ph.D., National Institute for Occupational Safety  
and Health**
- 11:00 MicroRNAs in hair cell fate determination – *Haiqiong Li,  
Purdue University*
- 11:20 Significance of MicroRNAs in Development and Maintenance of  
the Mouse Inner Ear – *Garrett Soukup, Ph.D., Creighton  
University*
- 11:50 *Abstract Talk: Hair cell microRNA misexpression in supporting  
cells results in hair cell loss and deafness - Michael Weston, Ph.D.,  
Creighton University School of Medicine*
- 12:10 Mouse Experimental Embryology Provides Insight into the  
Development and Function of the Mammalian Inner Ear-  
*John Brigande, Ph.D., Oregon Hearing Research Center at  
the Oregon Health & Science University*
- 12:40 *Abstract Talk: Phenotypic and molecular characterisation of ENU  
mutagenised mouse models of recessive deafness -  
Shenaaz Manji, Ph.D., Murdoch Childrens Research  
Institute*
- 1:00 – 2:00pm Lunch and posters
- 2:00 – 2:30 Molecular Resources – Cre Lines, Floxed Alleles – *Jian Zuo,  
Ph.D., St. Jude Children’s Research Hospital*
- Session VI - New Mouse Models and Programs - Chair – Steven Brown, Ph.D., MRC**
- 2:30 – 4:00 European Projects – *Steven Brown, Ph.D., MRC*  
KOMP and NIH projects – *Colin Fletcher, Ph.D., NIH*  
Mouse lines expressing CRE recombinase in defined cell  
populations of the nervous system– *Ulrich Mueller, Ph.D.,  
The Scripps Research Institute*  
Panel Discussion

**Session VI I- Demonstrations and Workshops (*GRB Training Lab*)**

4:00 – 6:00            Mouse Biomethods, ear dissections, whole-mount and cross-section preps; SEM- –*David Custer, University of Cincinnati*  
*Leona Gagnon, The Jackson Laboratory*  
*Chantal Longo-Guess, The Jackson Laboratory*  
*Kelly Kane, The Jackson Laboratory*

**Sunday, September 21<sup>st</sup>**

**Session VIII- *Age-related and noise-induced hearing loss* Chair – *James Willot, Ph.D., University of South Florida***

8:30                    Role of Reactive Oxygen Species in Age and Noise Induced Hearing Loss in Transgenic Mice – *Richard Salvi, Ph.D., State University of New York, Buffalo*

8:50                    Hearing loss QTLs in mouse strains– *Konrad Noben-Trauth, Ph.D., NIDCD*

9:10                    The complex genetics of noise resistance – *Bruce Tempel, Ph.D., University of Washington*

9:30                    Genetic aspects of age- and noise-related endocochlear potential reduction – *Kevin Ohlemiller, Ph.D., Washington University, St. Louis*

9:50                    Primary Neural Degeneration after temporary noise-induced thresholds shifts: ABR amplitudes reveal what ABR thresholds hide. – *Charles Liberman, Ph.D., Harvard Medical School*

10:10                  Discussion of age-related and noise induced hearing loss - *James Willot, Ph.D., University of South Florida*

10:30                  Morning Break

**Session IX - *Hair cell structure-function* -Chair – *Kumar Alagramam, Ph.D., Case Western Reserve University***

11:00 – 1:00            Mouse models of mutant PCDH15, TRIOBP and LRTOMT causing human deafness: Insight into tip link composition, stereocilia rootlet formation and perhaps outer hair cell lateral wall structure – *Thomas Friedman, Ph.D., NIDCD*

                              Stereociliary Links – *Ulrich Muller, Ph.D., The Scripps Research Institute*

                              Modeling Prestin Function in Mice– *Richard Hallworth, Ph.D., Creighton University School of Medicine*

                              Panel Discussion

1 :00 – 2 :00            Lunch and posters

**Session X - Hair Cell Regeneration, Gene Therapy and Stem Cell Replacement –**  
Chair -*Jian Zuo, Ph.D., St. Jude Children’s Research Hospital*

2 :00 – 4 :00

Seeking What Limits Hair Cell Regeneration in Mammals –  
*Jeff Corwin, Ph.D., University of Virginia School of Medicine*

Stem cells and regeneration of the inner ear – *Albert Edge, Ph.D.,*  
*Massachusetts Eye and Ear Infirmary*

Zebrafish Hair Cell Regeneration – *David Raible, Ph.D.,*  
*University of Washington, Seattle*

Panel Discussion and Wrap-up

**Session XI - Demonstrations and Workshops (GRB Training Lab)**

4:00 – 4:30

General Principles in Electrophysiological Recordings- *Sherri*  
*Jones, Ph.D. East Carolina University*

4:30-5:00

DPOAE Demonstration - *Sherri Jones, Ph.D. East Carolina*  
*University*

5:00-5:30

ABR Demonstration – *Chantal Longo-Guess, B.S., The Jackson*  
*Laboratory*

5:30-6:00

VsEP Demonstration – *David Bergstrom, Ph.D., The Jackson Laboratory*

END of MEETING