

## **CURRICULUM VITAE**

### **Jennifer Jean Lentz**

**Current Title: Research Assistant Professor**, Department of Otorhinolaryngology and Biocommunications, adjunct in the Department of Ophthalmology, and member of the Neuroscience Center of Excellence, LSUHSC

**Business Address:** 2020 Gravier Street, New Orleans, Louisiana, 70112

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#### **Education:**

**BA**, Biology and Chemistry, May 1992, Monmouth College, Monmouth, Illinois, USA

**PhD**, Genetics, May, 2007, Louisiana State University Health Sciences Center, Louisiana, USA

#### **Academic, Professional, and Research Appointments:**

Aug, 1992-Aug, 1993	<b>Technician</b> , Abbott Laboratories, Abbott Park, IL
Nov, 1993-Dec, 1995	<b>Research Technician</b> , Mosier Lab, The Scripps Research Institute, San Diego, CA
May, 1996-Aug, 1997	<b>Technician</b> , Quidel Corporation, San Diego, CA
Sept, 1997-Sept, 2001	<b>Research and Development Chemist</b> , Prometheus Laboratories, Inc., San Diego, CA
Oct, 2001-Apr, 2002	<b>Research Associate III</b> , Elizabeth Mannick MD, Department of Pediatrics, LSUHSC
May, 2002-May, 2007	<b>Research Associate III and PhD Student</b> , Bronya Keats PhD (mentor), Department of Genetics, LSUHSC
Jun, 2007-Jun, 2008	<b>Postdoctoral Researcher</b> , Bronya Keats PhD (mentor), Department of Genetics, LSUHSC
Jun, 2008-Jan, 2012	<b>Postdoctoral Researcher</b> , Nicolas Bazan MD, PhD (mentor), Neuroscience Center, LSUHSC
Feb, 2012-present	<b>Research Assistant Professor</b> , Department of Otorhinolaryngology and Biocommunications, adjunct in the Department of Ophthalmology and member of the Neuroscience Center of Excellence, LSUHSC

#### **Membership in Professional Organizations:**

The Association for Research in Otolaryngology  
The Association for Research in Vision and Ophthalmology  
Society for Neuroscience  
Association for Women in Science

#### **Awards and Honors:**

Outstanding Poster, Graduate Student, Department of Pediatrics Research Day, 2002  
Outstanding Research Contributions, Young Faculty Award, LSU Neuroscience Center of Excellence, December 2012  
Travel Fellowship Award to present at the XVI<sup>th</sup> International Symposium on Retinal Degeneration (RD2014), Pacific Grove, CA, July 2014

#### **TEACHING EXPERIENCE AND RESPONSIBILITIES**

**Course/Clerkship/Residency or Fellowship/CME Directorships:**

CME Course: Rescue of hearing and vestibular function in a mouse model of human Usher syndrome, Monthly Genetics Meeting, Department of Genetics, Children's Hospital, New Orleans, LA, USA, August 2013

Ear Histology Lecture, Cell Biology and Microanatomy Course, First year medical students, 2 Lectures, October 2013

Leadership Education in Neurodevelopmental Disabilities (LEND) Lecture, Allied Health Students, 2 Lectures, January 2014

CME Course: Learn more about Usher syndrome in Louisiana, Symposium, Pennington Biomedical Research Center, October 2014

CME Course: Antisense Oligonucleotides effectively treat Usher syndrome in mice, Grand rounds, Hayward Genetics Center, Tulane University School of Medicine, New Orleans, LA, USA, January 2015

Auditory Systems II Lecture, Neuro 203 (NRSC 201) - Investigative Neuroscience, First/second year graduate students, 2 Lectures, October 2013 - 2015

**Departmental/Interdisciplinary Teaching Conferences:**

**LSU ENT Didactic Day**

January, 2013

Title of Seminar: Rescue of Hearing and Vestibular Function in an animal model of Usher syndrome

**Neuroscience Center of Excellence Seminar Series**

May, 2013

Title of Seminar: Rescue of Hearing and Vestibular Function in an animal model of Usher syndrome

February, 2014

Title of Seminar: Usher syndrome: Mechanisms of disease and treatment strategies

February, 2015

Title of Seminar: Precision Medicine for Usher syndrome

**ENT Sixteenth Annual Residents Research and Alumni Day**

Judge, June 2013 and June 2014.

**Allied Health Dean's Seminar Series**

November, 2015

Title of Seminar: Usher syndrome in Louisiana.

**Division of Animal Care Lunch and Learn Seminar Series**

March, 2016

Title of Seminar: Usher syndrome Research at LSUHSC

**Undergraduate, Medical, or Graduate Students Trained:**

**Research Advisor:**

**Jakobi Owens**, Xavier Prep High School Graduate, Summer Undergraduate in Neuroscience Program, 2010. I spent approximately 10 hours per week teaching Jakobi laboratory techniques in the field of hearing and vision.

**Jaime Winfield**, Undergraduate student, UCLA, Summer Undergraduate in Neuroscience Program, 2010. I spent approximately 10 hours per week teaching Jaime laboratory histology techniques in the field of vision science.

**Matthew Spalitta**, Undergraduate student, Tulane University, Summer Undergraduate in Neuroscience Program, 2011. I spent approximately 10 hours per week with Matthew in my laboratory teaching him laboratory techniques and mentoring him on good laboratory practices. The contributions he made to generating data on one of my research projects led to authorship on our publication, Lentz et al. 2013.

**Hai Tran**, Undergraduate Student, Xavier University, Summer Undergraduate in Neuroscience Program and student worker, 2011-2013. I spent approximately 4-10 per week teaching Hai laboratory techniques over the course of three summers and one academic year, during which time he graduated from Xavier University, applied for and was accepted to LSUHSC medical school.

**Lucas Ochoa**, high school student, Livingston High School, Livingston, New Jersey, Summer Undergraduate in Neuroscience Summer Research Program, 2012 and 2014. I spend approximately 2 hours per week for 8 weeks over the course of 2 summers with Lucas to assist and mentor him on his research project.

**Juliana M. Carriere**, Doctoral Audiology Student, SPTHAUD 7233-Research Laboratory Experience, LSUHSC School of Audiology, Spring 2013. I spent approximately 2 hours per week with Juliana to assist and mentor her with the research requirement for her doctoral degree in Audiology.

**Hung T. Mai**, Doctoral Audiology Student, SPTHAUD 7233-Research Laboratory Experience, LSUHSC School of Audiology, Spring 2013. I spent approximately 2 hours per week with Hung to assist and mentor him with the research requirement for his doctoral degree in Audiology.

**Jeffery L. Creel**, Doctoral Audiology Student, SPTHAUD 7233-Research Laboratory Experience, LSUHSC School of Audiology, Spring 2013. I spent approximately 2 hours per week with Jeffrey to assist and mentor him with the research requirement for his doctoral degree in Audiology.

**Brandi L. McGraw**, Doctoral Audiology Student, SPTHAUD 7233-Research Laboratory Experience, LSUHSC School of Audiology, Spring 2014. I spent approximately 2 hours per week with Brandi to assist and mentor her with the research requirement for her doctoral degree in Audiology.

**Allison E. Clark**, Doctoral Audiology Student, SPTHAUD 7233-Research Laboratory Experience, LSUHSC School of Audiology, Spring 2014. I spent approximately 2 hours per week with Brandi to assist and mentor her with the research requirement for her doctoral degree in Audiology.

**Brandi L. Greenhouse**, Doctoral Audiology Student, SPTHAUD 7233-Research Laboratory Experience, LSUHSC School of Audiology, Spring 2014. I spent approximately 2 hours per week with Brandi to assist and mentor her with the research requirement for her doctoral degree in Audiology.

**Suzanne Smart, MD**. ENT Residency Research Block, summer 2014. I spent approximately 10 hours per week for 3 months with Suzanne to assist and mentor her with her ENT residency research block. Dr. Smart presented her research at the Association for Research in Otolaryngology meeting in Boston, Ma in February 2015.

**Evan Longfield, MD**. ENT Residency Research Block, summer 2014. I spent approximately 6 hours per week for 3 months with Evan to assist and mentor him with

his ENT residency research block. Dr. Longfield received second prize at the 2015 ENT Residents Research Day, June 2015. He also presented his research at the American Society of Pediatric Otolaryngology Meeting in Boston, MA in April 2015.

**Inga Denman, MCD CCC-SLP**, Graduate Student in the Neuroscience Center, fall 2014. I spent approximately 6 hours per week for 10 weeks with Inga to assist and mentor her with her PhD laboratory rotation.

**Christopher Tran, MD**. ENT Residency Research Block, summer 2014. I spent approximately 10 hours per week for 3 months with Chris to assist and mentor him with his ENT residency research block. Dr. Tran received first prize at the 2015 ENT Residents Research Day, June 2015.

**Fran Franceschini**, Undergraduate, University of Puerto Rico, Summer Research Internship Program (Genetics), summer 2015. I spent approximately 2 hours per week for 10 weeks with Fran to assist and mentor him with his summer research project. Fran has been invited to present his research at the Annual Biomedical Research Conference for Minority Students in Seattle, WA in November 2015; and received the FASEB MARC Travel Award to attend and present his summer research in my laboratory at the Experimental Biology conference in San Diego, CA, USA in March, 2016.

**Lyndsay Nguyen**, Undergraduate, Xavier University, Summer Undergraduate in Neuroscience Program, summer 2015. I spent approximately 2 hours per week for 10 weeks with Lyndsay to assist and mentor her with her summer research project.

**Charles Varnishung**, Medical student, LSUHSC, Summer Undergraduate in Neuroscience Program, 2010 and 2015. Charles was a summer student in my laboratory after his sophomore year as an undergraduate student at Tulane University in 2010, and again after his first year of medical school at LSUHSC in 2015. I spent approximately 10 hours per week to assist and mentor Charles with his summer research projects.

**Tracy Mai**, Undergraduate, Xavier University, Summer Research Internship Program (Genetics), summers 2014 and 2015, and student worker 2014 - 2016. I spent approximately 2 hours per week for 10 weeks both summers with Tracy to assist and mentor her with her summer research projects. Tracy has continued to work in my lab as a student worker throughout her junior and senior years of undergraduate school.

**Arthur Fernandes**, MPH Candidate 2016, Tulane University. I spent approximately 2 hours per week for 6 months to assist and mentor him with a research internship in my laboratory working.

**David Vumbaco**, PhD Candidate 2016, LSUHSC, April 2016 – May 2017. I am co-mentoring, with Drs. Jason Middleton and Hamilton Farris, David on a research project in my laboratory for his dissertation.

**Katelyn Robillard**, MD-PhD Candidate, LSUHSC. Katelyn has chosen to do her thesis work in my laboratory as part of her MD/PhD program, 2016 – 2019. I have been spending approximately 2 hours per week to assist Katelyn in preparing an NRSA application to be submitted in August, 2016. After she completes the Step 1 exam in June (2016), she will join my laboratory full-time.

## **RESEARCH AND SCHOLARSHIP**

### **Grants and Contracts:**

#### **Funded:**

**1R01DC012596-01A1 (PI: Hastings)**

NIH/NIDCD

2/02/2013-2/02-2017

\$249,900/year Total Direct

Role: Co-Investigator

Percent Effort: 30

Title: Correction of Hearing and Vestibular defects in a Mouse Model for Deafness

**FFB WG Early Translational Research Award Program FY13 (PI: Lentz)**

Foundation Fighting Blindness

7/2013 - 6/2016

\$300,000/year Total Direct

Role: PI

Percent Effort: 20

Title: An Antisense-Oligonucleotide Treatment for Retinitis Pigmentosa in Usher syndrome

**Donation to LSU Foundation for Usher Syndrome Research (PI: Lentz)**

Eye on Jacob Foundation

2/20/2014

\$70,000

**LaCats Center Pilot Grants Program (PI: Lentz)**

Louisiana Clinical and Translational Science Center

1/2015-1/2016

\$50,000/year

Role: PI

Percent effort: 10

Title: Molecular Epidemiology and Natural History of Acadian Usher syndrome.

**Donation to LSU Foundation for Usher Syndrome Research (PI: Lentz)**

Usher 2020 Foundation

3/2015 – 3/2018

\$170,000/year

Memo of Understanding to support 2 positions for up to 3 years

**Pending:**

**Research Enhancement Program**

LSUHSC Dean's Office submitted 3, 2016 \$50,000 Direct for 1 year

Role: co-investigator (unpaid) (PI: Mears, K)

Percent Effort: 5

Title: Comprehensive Demographic and Clinical Evaluation for Inherited Ophthalmic Diseases in Louisiana

**P30 GM103340 (PI: Bazan)**

NIH/NIGMS

submitted 4, 2016

\$50,000 Direct for 1 year

Role: Pilot Project PI

Percent Effort: 10

Title: Molecular Mechanisms of USH1C disease and genetic correction in Usher mice

**P30 GM103340 (PI: Bazan)**

NIH/NIGMS

submitted 4, 2016

\$50,000 Direct for 1 year

Role: Pilot Project co-investigator (PI: Giddy, J)

Percent Effort: 5 (unpaid)

Title: Adaptive Epigenetic Approaches to Retinal Degeneration

**Completed:**

**P30 GM103340 (PI: Bazan)**

NIH/NIGMS

11/12/2012 - 5/30/2013

\$50,000 Direct



Educational Audiology Association

Not funded

Role: Co-Investigator

Percent Effort: 5

Title: The Usher Syndrome-Louisiana Project to instruct audiology trainees, other healthcare professionals, and the general community about Usher syndrome.

### **Journal Publications:**

#### **Refereed:**

H.R. Rosen, **J.J. Lentz**, S.L. Rose, J. Rabkin, C.L. Corless, K. Taylor and L. Chou. Donor Polymorphism of Tumor Necrosis Factor Gene: Relationship with Variable Severity of Hepatitis C Recurrence Following Liver Transplantation. *Transplantation*, December, 1999, 68(12):1898-902.

Rosen HR, McHutchison JG, Conrad AJ, **Lentz JJ**, Marousek G, Rose SL, Zaman A, Taylor K, Chou S. Tumor necrosis factor genetic polymorphisms and response to antiviral therapy in patients with chronic hepatitis C. *American Journal of Gastroenterology*, March, 2002, 97(3): 714-20.

Mannick EE, Schurr JR, Zapata A, **Lentz JJ**, Gastanaduy M, Cote RL, Delgado A, Correa P, Correa H. Gene expression in gastric biopsies from patients infected with *Helicobacter pylori*. *Scand J Gastroenterol*. 2004 Dec;39(12):1192-200.

Mannick EE, Bonomolo JC, Horswell R, **Lentz JJ**, Serrano MS, Zapata-Velandia A, Gastanaduy M, Himel JL, Rose SL, Udall JN Jr, Hornick CA, Liu Z. Gene expression in mononuclear cells from patients with inflammatory bowel disease. *Clin Immunol*. 2004 Sep;112(3):247-57.

Zapata-Velandia A, Ng SS, Brennan RF, Simonsen NR, Gastanaduy M, Zabaleta J, **Lentz JJ**, Craver RD, Correa H, Delgado A, Pitts AL, Himel JR, Udall JN Jr, Schmidt-Sommerfeld E, Brown RF, Athas GB, Keats BB, Mannick EE. Association of the T Allele of an Intronic Single Nucleotide Polymorphism in the colony stimulating factor 1 receptor with Crohn's disease: a case-control study. *J Immune Based Ther Vaccines*. 2004 May;14;2(1):6.

Mannick EE, Cote RL, Schurr JR, Krowicka HS, Sloop GD, Zapata-Velandia A, Correa H, Ruiz B, Horswell R, **Lentz JJ**, Byrne P, Gastanaduy MM, Hornick CA, Liu Z. Altered phenotype of dextran sulfate sodium colitis in interferon regulatory factor-1 knock-out mice. *J Gastroenterol Hepatol*. 2005 Mar;20(3):371-80.

**Lentz J**, Savas S, Ng SS, Athas G, Deininger P, Keats B. The USH1C 216G-->A splice-site mutation results in a 35-base-pair deletion. *Hum Genet*. 2005 Feb;116(3):225-7.

**Lentz J**, Pan F, Ng SS, Deininger P, Keats B. Ush1c216A knock-in mouse survives Katrina. *Mutat Res*. 2007 Mar 1;616(1-2):139-44.

**Lentz JJ**, Gordon WC, Farris HE, MacDonald GH, Cunningham DE, Robbins CA, Tempel B, Bazan NG, Rubel EW, Oesterle EC, Keats BJ. Deafness and Retinal Degeneration in the Novel USH1C Knock-in Mouse Model. *Dev Neuro*. 2010 Mar;70(4):253-67.

Phillips JB, Blanco B, **Lentz JJ**, Tallafuss A, Khanobdee K, Sampath S, Jacobs ZG, Han PF, Mishra M, Titus TA, Williams DS, Keats BJ, Washbourne P, Westerfield M. Harmonin (Ush1c) is required in zebrafish Muller glial cells for photoreceptor synaptic development and function. *Dis Model Mech*. 2011 Nov 4(6):786-800.

**Lentz JJ**, Hinrich AJ, Jodelka FM, McCaffrey K, Farris HE, Bazan NG, Rigo F, Duelli DM, Hastings ML. Rescue of hearing and vestibular function in a mouse model of human deafness. *Nat Med*. 2013 Mar; 19(3):345-50.

Jeyakumar A, **Lentz JJ**. Usher syndrome in Louisiana. *Pediatric Review, Children's Hospital, New Orleans, LA*. 2014 Apr XXVIII(2).

Depreux FF, Wang L, Jiang L, Jodelka FM, Rosencrans RF, Rigo F, **Lentz JJ**, Brigande JV, Hastings ML. Antisense oligonucleotides delivered to the amniotic cavity in utero modulate gene expression in the postnatal mouse. *Nucleic Acids Research*, submitted April, 2016.

Ponnath A, Depreux F, Jodelka FM, Farris HE, Rigo F, Hastings ML, **Lentz JJ**. Rescue of inner and outer hair cells is dependent on dose and timing of antisense oligonucleotide treatment in Usher mice. In preparation, April 2016.

Amato RJ, Rosencrans RF, Jodelka FM, Depreux F, Flaas M, , Bazan NG, Rigo F, Hastings ML, **Lentz JJ**. Visual function is restored with antisense oligonucleotide treatment in a mouse model of Usher syndrome. In preparation, April 2016.

Tran CM, Ponnath A, Farris HE, Rigo F, Hastings ML, **Lentz JJ**. Transtympanic delivery of antisense oligonucleotides in a murine model of Usher syndrome. In preparation, April 2016.

#### **Published Abstracts:**

M.R. Cruz, E.A. Torres, S. Rose, **J. Lentz**, R. de Jesus, H. Acosta, J.T. Tomasini. Seroprevalence of *Helicobacter pylori* Antibodies in Puerto Rican Patients with Inflammatory Bowel Disease: A Pilot Case-Control Study. American College of Gastroenterology, 63<sup>rd</sup> Annual Scientific Meeting, October, 1998, Boston, MA, USA.

H.R. Rosen, J.G. McHutchison, F. Chisari, **J.J. Lentz**, S.L. Rose, K. Taylor, S. Chou. Relationship between Genetic Polymorphisms of Tumor Necrosis Factor Locus and Response to Therapy in Patients with Chronic Hepatitis C. American Association for the Study of Liver Disease, October, 1999, Dallas, TX, USA.

**J. Lentz**, M. Barry, S. Rose. Do IBD patients Show the Same Tri-Modal Distribution for TPMT Enzyme as Reported in Various Ethnic Populations? American College of Gastroenterology, October, 2000, New York, NY, USA.

**J. Lentz**, J. Cunningham, M. Winland, W. Witmer, V. Sarkissian, S. Rose. Performance Evaluation of a Thiopurine Methyltransferase (TPMT) Enzyme Activity Assay by Reversed-Phase HPLC. American College of Gastroenterology, October, 2000, New York, NY, USA.

E.E. Mannick, M.-S. Serrano, **J. Lentz**, S. Rose, J.C. Bonomolo, M. Lau, J.N. Udall, Z. Liu. Detection of Possible Inflammatory Bowel Disease-related Genes Using Microarray

Analysis. American Gastroenterology Association Digestive Disease Week, May 21, 2001, Atlanta, GA, USA.

**Lentz, J;** Athas, G; Savas, S; Deininger, P; Keats, B. The *USH1C* 216G→A cryptic splice site mutation results in a 35 base pair deletion. American Society of Human Genetics, October, 2004, Toronto, Canada.

**J Lentz,** F Pan, S Ng, P Deininger, B Keats. Knock-in mouse model of Usher type IC. American Society of Human Genetics, October, 2006, New Orleans, LA, USA.

**J Lentz,** J Phillips, K Owens, W Gordon, H Farris, F Pan, S Ng, P Deininger, N Bazan, E Rubel, D Raible, M Westerfield, B Keats. A knock-in mouse model of Usher type IC. The First International Symposium on Usher Syndrome, September, 2006, Omaha, NE, USA.

**J Lentz,** J Phillips, K Owens, W Gordon, H Farris, F Pan, S Ng, P Deininger, N Bazan, E Rubel, D Raible, M Westerfield, B Keats. A knock-in mouse model of Usher type IC. The Winter Conference on Brain Research, January, 2007, Snowmass, CO, USA.

**J Lentz,** WC Gordon, H Farris, P Deininger, NG Bazan, B Keats. Animal models of Usher type IC. The Association for Research in Vision and Ophthalmology, May, 2007, Ft. Lauderdale, FL, USA.

J.B. Phillips, **J.J.Lentz,** A Tallafuss, Z Jacobs, K. Owens, K. Kanobdee, S. Sampath, B.J. Keats, D. Raible, D.S. Williams, P.O'Day, P. Washbourne, M. Westerfield. Zebrafish harmonin expression in Müller cells is required for synaptic function. The Association for Research in Vision and Ophthalmology, May, 2009, Ft. Lauderdale, FL, USA.

**JJ Lentz,** W Gordon, H Farris, G MacDonald, D Cunningham, C Robbins, B Tempel, E Rubel, E Oesterle, B Keats, N Bazan. Combined Retinal Degeneration and Deafness in the *Ush1c216AA* knock-in mouse. The Association for Research in Vision and Ophthalmology, May, 2009, Ft. Lauderdale, FL, USA.

KE McCaffrey, AJ Hinrich, FM Jodelka, **JJ Lentz,** NG Bazan, F Rigo, F Bennett, ML Hastings. Blocking Cryptic Splicing in Usher syndrome using antisense oligonucleotides. The Association for Research in Vision and Ophthalmology, May, 2011, Ft. Lauderdale, FL, USA.

HE Farris, **JJ Lentz,** C Varnishung, WC Gordon, NG Bazan. *Ush1c216AA* knock-in mice have slow photoreceptor adaptation. The Association for Research in Vision and Ophthalmology, May, 2011, Ft. Lauderdale, FL, USA.

**JJ Lentz,** FM Jodelka, WC Gordon, ML Hastings, NG Bazan. The *Ush1c.216G>A* splice site mutation results in the accumulation of harmonin in the retina. The Association for Research in Vision and Ophthalmology, May, 2011, Ft. Lauderdale, FL, USA.

**JJ Lentz,** AJ Hinrich, FM Jodelka, K McCaffrey, HE Farris, NG Bazan, F Rigo, DM Duelli, ML Hastings. Correction of deafness and vestibular function in a mouse model of Usher syndrome. The Association for Research in Otolaryngology, February, 2012, San Diego, CA, USA.

**JJ Lentz**, FM Jodelka, AJ Hinrich, K McCaffrey, HE Farris, NG Bazan, DM Duelli, F Rigo, ML Hastings. Correction of cryptic splicing in Usher syndrome using antisense oligonucleotides. The Association for Research in Vision and Ophthalmology, May, 2012, Ft. Lauderdale, FL, USA.

Hastings, **JJ Lentz**, FM Jodelka, AJ Hinrich, K McCaffrey, HE Farris, NG Bazan, DM Duelli, F Rigo, MJ Spalitta. Rescue of hearing and vestibular function in deaf mice using antisense oligonucleotides that block a cryptic splice site. Society for Neuroscience, October, 2012, New Orleans, LA, USA.

C Askew, Y Asai, **JJ Lentz**, G Geleoc. Mechanotransduction Defects in Sensory Hair Cells of USH1C Knock-in Mice. The Association for Research in Otolaryngology, February, 2013, Baltimore, MD, USA.

**JJ Lentz**, Hastings, FM Jodelka, AJ Hinrich, K McCaffrey, HE Farris, NG Bazan, DM Duelli, F Rigo, MJ Spalitta. Rescue of hearing and vestibular function in a mouse model of Usher syndrome: SEM and immunohistochemical analysis. The Association for Research in Otolaryngology, February, 2013, Baltimore, MD, USA.

**JJ Lentz**, M Flaar, FM Jodelka, AJ Hinrich, KE McCaffery, NG Bazan, DM Duelli, F Rigo, ML Hastings. ASOs effectively target Ush1c mutations in mice. The Association for Research in Vision and Ophthalmology, May, 2013, Seattle, WA, USA.

GS Geleoc, B Pan, Y Asai, **JJ Lentz**, CH Askew. Mechanotransduction Defects in Sensory Hair Cells of USH1C Knock-in Mice. The Molecular Biology of Hearing & Deafness Conference, June, 2013, Stanford, CA, USA.

A Ponnath, FM Jodelka, AJ Hinrich, KE McCaffery, HE Farris, NG Bazan, F Rigo, ML Hastings, **JJ Lentz**. Dose Dependent threshold rescue using antisense oligonucleotides in Usher mice. The Association for Research in Otolaryngology, February, 2014, San Diego, CA, USA.

EA Longfield, A Musso, D Mercer, A Umrigar, K Foley, K Wood, J Zabaleta, F Tsien, **JJ Lentz**, A Jeyakumar. Regional Prevalence of the Acadian USH1C Mutation. American Society of Pediatric Otolaryngology, April, 2015, Boston, MA, USA.

SE Smart, F Rigo, ML Hastings, **JJ Lentz**. The effect of Harmonin expression on Usher proteins in a mouse model of USH1C. The Association for Research in Otolaryngology, February, 2015, Baltimore, MD, USA.

A Ponnath, HE Farris, F Rigo, ML Hastings, **JJ Lentz**. Functional Integrity of Outer Hair Cells in Usher Mice. The Association for Research in Otolaryngology, February, 2015, Baltimore, MD, USA.

FM Jodelka, AJ Hinrich, F Depreux, A Ponnath, R Amato, M Flaar, F Rigo, **JJ Lentz**, ML Hastings. Antisense oligonucleotides for the treatment of Usher syndrome. The Association for Research in Otolaryngology, February, 2015, Baltimore, MD, USA.

RJ Amato, RF Rosencrans, FM Jodelka, AJ Hinrich, NG Bazan, F Rigo, ML Hastings, **JJ Lentz**. Early effects of antisense oligonucleotide treatment on photoreceptor function

and retinal structure in a mouse model of Usher syndrome. The Association for Research in Vision and Ophthalmology, May, 2015, Denver, CO, USA.

RF Rosencrans, RJ Amato, Y Zhou, NG Bazan, **JJ Lentz**. Early changes in retinal structures in a mouse model of Usher syndrome. The Association for Research in Vision and Ophthalmology, May, 2015, Denver, CO, USA.

FA Franceschini-Lopez, RJ Amato, F Rigo, ML Hastings, **JJ Lentz**. Effects of antisense oligonucleotide treatment on photoreceptor function in a mouse model of Usher syndrome. Annual Biomedical Research Conference for Minority Students, November, 2015, Seattle, WA, USA.

CM Tran, A Ponnath, M Flaar, F Rigo, ML Hastings, **JJ Lentz**. Transtympanic delivery of antisense oligonucleotides in a murine model of Usher syndrome. The Association for Research in Otolaryngology, February, 2016, San Diego, CA, USA.

ML Hastings, F Depreux, FM Jodelka, **JJ Lentz**, F Rigo, S Vijayakumar, TA Jones. Single injection of antisense oligonucleotides rescues peripheral vestibular function in USH1C mouse model. The Association for Research in Otolaryngology, February, 2016, San Diego, CA, USA.

FA Franceschini, RJ Amato, F Rigo, ML Hastings, **JJ Lentz**. Effects of antisense oligonucleotide treatment on photoreceptor function in a mouse model of Usher syndrome. Experimental Biology, FASEB, San Diego, CA, USA, March 2016.

RJ Amato, RF Rosencrans, FM Jodelka, F Depreux, NG Bazan, F Rigo, ML Hastings, **JJ Lentz**. Cumulative dosing enhances the beneficial effects of antisense oligonucleotide treatment on visual function in a mouse model of Usher syndrome. The Association for Research in Vision and Ophthalmology, May, 2016, Seattle, WA, USA.

JL Hastings, FF Depreux, A Ponnath, FM Jodelka, AJ Hinrich, CM Tran, R Amato, HE Farris, F Rigo, S Vijayakumar, TA Jones, **JJ Lentz**. Antisense oligonucleotides for the treatment of Usher syndrome. Molecular Biology of Hearing and Deafness, Wellcome Genome Campus, May, 2016, Hinxton, Cambridge, UK.

GGG Geleoc, F Pan, S Haman-Ackah, A Galvin, A indzhukulian, **JJ Lentz**, L Vandenberghe, C Askew, JR Holt, Y Asai. Gene therapy restores auditory and vestibular function in a mouse model of Usher syndrome, type 1C. Molecular Biology of Hearing and Deafness, Wellcome Genome Campus, May, 2016, Hinxton, Cambridge, UK.

V Givens, **JJ Lentz**, A Jeyakumar. Etiology of Sensorineural Hearing Loss In A Pediatric Population. American Society of Pediatric Otolaryngology, Summer Meeting, Vail, CO, USA, August 2016.

#### **Press Coverage:**

Genetic Patch 'stops deafness' in newborn mice. J. Gallagher, BBC News Health, February 4, 2013.

Researchers Develop Rx for Deafness, Impaired Balance in Mouse Model of Usher syndrome. Provided by LSUHSC to Science Daily via EurekaAlert!, February 4, 2013.

Scientists Prevent Development of Deafness in Animals Engineered to have Usher Syndrome. Provided by RFUMC to Science Daily via EurekaAlert!, February 4, 2013.

Researchers Develop Rx for Deafness, Impaired Balance in Mouse Model of Usher Syndrome. Provided by LSUHSC, Science Newsline Medicine & Health Care. February 4, 2013.

Gene Therapy in mice gives hope to the deaf. A France-Press, The Raw Story, February 4, 2013.

Local medical research team makes breakthrough in curing deafness. Meg Farris, WWLTV.com, February, 4 2013.

Partial fix for Usher syndrome found in mice. The Associated Press, USA Today, February, 9, 2013.

Molecular therapy: Deafness Diverted. Nature Publishing Group, February 13, 2013.

LSU Health Sciences Center Discovers Breakthrough Therapy to Cure Deafness. J Ballard, Silicon Bayou News, February 19, 2013.

Rescue from Hearing Loss in Usher's Syndrome. Avraham KB. Clinical Implications of Basic Research, N Engl J Med. 2013. 369;18

Splicing: hear and now! Kole, R. Commentary, Mol Ther. May,21(5):920-1.

LSU gets \$70,000 for genetic research into Usher syndrome in Cajuns. The Associated Press, The Times Picayune, Louisiana; The Washington Times, Washington, DC; March 19, 2014.

2 groups give \$70,000 to LSU Health Sciences Center New Orleans for Usher syndrome research, The Associated Press, Daily Reporter and Daily Journal, Indiana; March 19, 2014

Teen lives with condition that could take his sight, hearing. Fox 8 News, New Orleans, November 18, 2014.

#### **Scientific Presentations:**

#### **Invited Presentations and Seminars:**

##### **Local:**

Acadian Usher syndrome. Invited speaker, Eye on Jacob Foundation Fund-raiser, Broussard, LA, USA, September 2013.

LSUHSC Pharmacology Seminar Series, Title of Seminar: Rescue of Hearing and Vestibular Function in a mouse model of human Usher syndrome, October 2013.

Louisiana Deaf-Blind Retreat. Invited speaker, Title of Seminar: Usher Syndrome Update and Progress toward New Therapies, Acadian Baptist Center, Eunice, LA, USA, October 2015.

Louisiana Academy of Audiology. Invited Speaker. New Orleans, LA, USA, September 2016.

**National:**

Correction of deafness and vestibular function in a mouse model of Usher syndrome. Podium presentation, The Association for Research in Otolaryngology, San Diego, CA, USA, February 2012.

Update and Overview: Usher syndrome. Invited speaker, Visions 2014, The National Conference of the Foundation Fighting Blindness, Denver, CO, USA, June 2014.

Update and Overview: Usher syndrome. Invited speaker, Visions 2015, The National Conference of the Foundation Fighting Blindness, Baltimore, MD, USA, June 2015.

Update and Overview: Usher syndrome. Invited speaker, Visions 2016, The National Conference of the Foundation Fighting Blindness, Baltimore, MD, USA, July 2016.

**International:**

Usher syndrome type 1C: Mechanisms, Animal Models and the hunt for a Cure. Invited speaker, Coalition for Usher syndrome Research Conference Call, November 2012.

Rescue of Deafness and Vestibular Function in a mouse model of human Usher syndrome. Invited Speaker, Genomic Disorders 2013, Cambridge, London, UK, April 2013.

An Antisense-Oligonucleotide Treatment for Retinitis Pigmentosa in Usher syndrome. Invited Speaker, WG Trap PI's Meeting, Foundation Fighting Blindness, Las Vegas, NV, USA, November 2013.

Antisense oligonucleotides effectively treat Usher syndrome in mice. Invited speaker, International Symposium on Usher Syndrome, Harvard Medical School, MA, USA, July 2014.

Antisense oligonucleotides effectively treat Usher syndrome in mice. Invited speaker and selected travel award, The XVI<sup>th</sup> International Symposium on Retinal Degeneration (RD2014), Pacific Grove, CA, USA, July 2014.

Usher 1C Meeting. Invited to be a project leader in an international consortium on Usher 1C translational research. Title of seminar: Development of an ASO-based therapy for the deafness, vestibular dysfunction and RP in USH1C. Foundation Fighting Blindness, Columbia, MD, November 2014.

An Antisense-Oligonucleotide Treatment for Retinitis Pigmentosa in Usher syndrome. Invited Speaker, WG Trap PI's Meeting, Foundation Fighting Blindness, Las Vegas, NV, USA, November 2014.

Advances in Drug Therapy for Usher syndrome. Invited Speaker, Usher syndrome 7<sup>th</sup> Annual Family Conference, Usher syndrome Coalition, New Orleans, LA, USA, July 2015

**Visiting professorships or seminars:**

Rescue of hearing and vestibular function in a mouse model of human deafness. Invited seminar speaker, UCL Ear Institute, University College London, London, UK, April 2013.

Treatment of Usher syndrome with antisense oligonucleotides, Invited seminar speaker, Boystown National Research Hospital, Omaha, NE, USA, May 2013.

Rescue of hearing and vestibular function in a mouse model of Usher syndrome. Invited seminar speaker, Molecular Biology of the Inner Ear Seminar, Mass Eye and Ear Infirmary and Harvard Medical School, Boston, MA, USA, June 2013.

Rescue of hearing and vestibular function in a mouse model of Usher syndrome. Invited seminar speaker. Oregon Hearing Research Center, Oregon Health and Science University, Portland, OR, USA, July 2013.

Antisense oligonucleotides effectively treat Usher syndrome in mice. Invited seminar speaker. University of Texas, San Antonio, San Antonio, TX, USA, May 2014.

Rescue of Deafness and Vestibular Function in a mouse model of human Usher syndrome. Invited speaker. University of Puerto Rico, San Juan, Puerto Rico, USA, December, 2015.

**SERVICE ACTIVITIES****University/Institutional Service:****Departmental Committees:**

SUN Program Organizing Committee, Chair, Neuroscience Center of Excellence, 3 year appointment, 2013-2016

Seminar Series/Outside Speaker Committee, Member, Neuroscience Center of Excellence, 3 year appointment, 2013-2016

Graduate Recruitment and Advisory Committee, Member, Neuroscience Center of Excellence, 3 year appointment, 2013-2013

**Institutional Service:**

Faculty Assembly, Alternate Delegate, 2013-2015.

LSUHSC House Mentorship Program, Basic Science Mentor, 2013 – 2016.

Research Infrastructure and Core Facilities Work Group, SOM Strategic Planning Initiative 2014-2019, 1 year appointment, 2013-2014.

Research Enhancement Program Review Committee, Member, December 2013, Reviewer and Committee member, 2014-2016.

Auditory Science Seminar Series, Co-Chair, 1 year appointment, 2014-2015. I participated in the development and implementation of a multi-departmental, monthly

seminar series to foster interdisciplinary basic science and clinical collaboration at LSUHSC-SOM; and mentor students, post-docs and residents on scientific presentation.

The Louisiana Deafblind Project for Children and Youth Council Member, Human Development Center, School of Allied Health, LSUHSC-NO. 3 year appointment, 2015-2018.

Faculty Assembly Delegate and Secretary/Treasurer, 2015-2018.

Junior Faculty Guidance and Mentoring Committee, Member, 2015.

**Community Service Activities:**

**Association for Women in Science, South-Louisiana Chapter**

Mission statement committee, Chair, January 2010-2011

Website committee, Chair, January 2011 – present

Debunking Stereotypes of Women in Science, Outreach retreat, Milton H. Latter

Memorial Public Library, New Orleans, LA USA, July, 2014.

**Isidore Newman**

Saturday in the Garden, Volunteer to teach pre-K and K the science of gardening  
October, 2012.

Guest reader in pre-K classroom, September, January and March 2013.

Family Service Day, Volunteer for the Kitchen Drive for Unity of Greater New Orleans  
May, 2013.

Landry Poche Strawberry Farm, Volunteer Chaperone for Isidore Newman School field  
trip, April 2016.

Jean Lafitte National Park, Volunteer Chaperone for Isidore Newman school field trip,  
April 2016.

**Learn More about Usher syndrome in Louisiana**

Organizer and speaker that included CME credits of a community symposium for  
patients, families and local healthcare professionals, Pennington Biomedical Research  
Center, October 2014.

Organizer and speaker of a community symposium on Usher syndrome in Louisiana for  
patients, families and local healthcare professionals, University of Louisiana - Lafayette,  
August 2016.

**Foundation Fighting Blindness**

International Usher 1C Consortium member, 2014-present.

**Usher 2020 Foundation**

Foundation Board member, 2015-present

Revised: February 2013