

## COLLEGE OF MEDICINE CURRICULUM VITAE

**Erin Kathleen O'Brien, M.D.**

Assistant Professor  
Department of Otolaryngology—Head and Neck Surgery  
University of Iowa Hospitals & Clinics  
21263 PFP  
200 Hawkins Drive  
Iowa City, IA 52242  
Office: 319-384-9784  
Fax: 319-356-4547  
Pager: 319-356-7000 x9223  
erin-k-obrien@uiowa.edu

### **I. EDUCATIONAL AND PROFESSIONAL HISTORY**

#### **A. List of institutions attended**

8/1992-5/1996 *Magna cum laude*, DePauw University, Greencastle, IN, Bachelor of Arts (Biology)

8/1996-5/2000 Doctor of Medicine, University of Pittsburgh School of Medicine

7/2000-6/2001 Internship in General Surgery, Mercy Hospital of Pittsburgh

7/2001-6/2003 NIH Research Fellowship, University of Iowa, Departments of Anatomy and Cell Biology and Pediatrics

6/2003-6/2007 Residency in Otolaryngology, University of Iowa Department of Otolaryngology—Head and Neck Surgery

7/2007-6/2008 Rhinology and Chemosensory Fellowship, University of Nebraska, Medical Center Dept. of Otolaryngology—Head and Neck Surgery

#### **B. Professional and academic positions held**

7/2008-present Assistant Professor, Rhinology/Sinus Surgery, University of Iowa Hospitals and Clinics Dept. of Otolaryngology—Head and Neck Surgery

#### **C. Awards and Honors**

COLLEGE OF MEDICINE CURRICULUM VITAE

Erin K. O'Brien, MD

- 1992 **Rector Presidential Scholarship** (full tuition for four years)  
DePauw University
- 1992-1996 **Science Research Fellows Program**  
DePauw University, Greencastle, IN
- 1996 **Phi Beta Kappa**
- 1996 **Albert E. Reynolds Outstanding Senior Award in Biological Sciences** DePauw University
- 2000 **Kenneth H. Hinderer, M.D. Memorial Award in Otolaryngology**  
University of Pittsburgh School of Medicine
- 2003 **University of Iowa College of Medicine Research Week Poster Competition Award**
- 2010- **NIH Loan Repayment Program**
- 2010- **American Board of Otolaryngology** Board Examination Item  
Writer

**D. Courses Attended**

- 2001 American Society of Human Genetics Annual Meeting, San Diego, CA
- 2002 43<sup>rd</sup> Annual Short Course in Medical and Experimental Mammalian Genetics, The Jackson Laboratory, Bar Harbor, ME.
- 2003 University of Iowa Department of Otolaryngology Head and Neck Laser Course
- 2004 University of Iowa Department of Otolaryngology Head and Neck Course
- 2005 AAOA Basic Course in Otolaryngic Allergy, Quebec City, Quebec
- 2006 University of Iowa Department of Otolaryngology Sinus Course
- 2008 AO Foundation Maxillofacial Trauma course, St. Louis M
- 2010 6<sup>th</sup> Annual DOE Joint Genome Institute User Meeting and Integrated Microbial Genomes (IMG)/Metagenomes Workshop, Walnut Creek, CA

**II. TEACHING**

- 1994 Teaching Assistant, Organismal Biology, DePauw University
- 1995, 1996 Teaching Assistant, Comparative and Developmental Biology, DePauw University
- 2005- Basic Science Course, University of Iowa, Department of Otolaryngology
- 2008 Foundations of Clinical Practice III, small group facilitator for M2 medical students, University of Iowa Carver College of Medicine
- 2009- Head and Neck Course, University of Iowa, Department of Otolaryngology
- 2009- Sinus Course, University of Iowa, Department of Otolaryngology

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- 2010 Visiting Professor, Siouxland Family Practice Residency Program (Sioux City, IA) and Broadlawns Family Practice Residency Program (Des Moines, IA)
- 2010 Faculty, Hands on Cadaver Course, Midwest Resident Update in Rhinology: Techniques in Endoscopic Sinus Surgery. St. Louis University

**SCHOLARSHIP/PROFESSIONAL PRODUCTIVITY**

**A. Publications**

**O'Brien EK**, Zhang X, Nishimura C, Tomblin JB, Murray JC. Association of specific language impairment (SLI) to the region of 7q31. *American Journal of Human Genetics*, **2003**, 72:1536-1543.

Schultz RE, Cooper ME, Daack-Hirsch S, Shi M, Nepomucena B, Graf KA, **O'Brien EK**, O'Brien SE, Marazita ML, Murray JC. A targeted scan of fifteen regions for nonsyndromic cleft lip and palate in Filipino families. *American Journal of Medical Genetics*, **2004**, 125A(1):17-22.

**O'Brien EK**, D'Alencon C, Bonde G, Li W, Schoenbeck J, Allende ML, Gelb BD, Yelon D, Eisen JS, Cornell RA. Transcription factor AP-2a is necessary for development of embryonic melanophores, autonomic neurons, and pharyngeal skeleton in zebrafish. *Developmental Biology*, **2004**, 165: 246-261.

Robey AB, **O'Brien EK**, Richardson BE, Baker JJ, Poage DP, Leopold DA. The Changing Face of Paranasal Sinus Fungus Balls. *Ann Otol Rhinol Laryngol*, **2009**, 118:500-505.

**O'Brien EK**, D'Alencon C, Bonde G, Li W, Schoenbeck J, Allende ML, Gelb BD, Yelon D, Eisen JS, Cornell RA. Transcription factor AP-2a is necessary for development of embryonic melanophores, autonomic neurons, and pharyngeal skeleton in zebrafish. *Developmental Biology*, **2004**, 165: 246-261.

Sabel JL, d'Alençon C, **O'Brien EK**, Van Otterloo E, Lutz K, Cuykendall TN, Schutte BC, Houston DW, Cornell RA. Maternal Interferon Regulatory Factor 6 is required for the differentiation of primary superficial epithelia in Danio and Xenopus embryos. *Dev Biol*, **2009**, Jan 1;325(1):249-62. Epub 2008 Nov 5.

**O'Brien EK** and Leopold DA. Olfaction and taste: Implications of viral, toxic exposure, head injury, aging and drugs." In: Stucker FJ, de Souza C, Kenyon GS, Lian TS, Draf W, Schick B, editors. *Rhinology and Facial Plastic Surgery*. Germany: Springer Verlag, **2009**. p. 97-104.

COLLEGE OF MEDICINE CURRICULUM VITAE

Erin K. O'Brien, MD

Robey AB, **O'Brien EK**, Leopold DA. Assessing current technical limitations in the small-hole endoscopic approach to the maxillary sinus. *American Journal of Rhinology and Allergy* **2010**;24(5):396-401.

Rudman K, **O'Brien EK**, Harvey J, Leopold DA. "Radiographic distribution of drops and sprays within the sinonasal cavity", *American Journal of Rhinology and Allergy*, accepted, **2010**.

**B. Posters and Presentations**

**O'Brien EK**, Ritzenthaler SE, Hazel W. "Environmental Cues for Dimorphic Pupal Color in Swallowtail Butterflies," presentation at 3<sup>rd</sup> Annual Argonne Symposium for Undergraduates in Science, Engineering and Mathematics, 1993.

**O'Brien EK**, Zhang X, Nishimura C, Tomblin JB, Murray JC. "Association of Specific Language Impairment (SLI) to the region of 7q31," poster at the Jackson Laboratory Annual Short Course in Medical and Experimental Mammalian Genetics, Bar Harbor, ME, 2002.

**O'Brien, EK** and Cornell, RA. "Transcription factor AP-2a is necessary for development of embryonic melanophores, autonomic neurons, and pharyngeal skeleton in zebrafish," presentation for the Department of Pediatrics, University of Iowa, Iowa City, IA, 2003.

**O'Brien, EK** and Cornell, RA. "Patterning of zebrafish neural crest requires transcription factor AP-2," poster at the Carver College of Medicine Research Week, University of Iowa, Iowa City, IA, 2003.

Rudman K, **O'Brien EK**, Harvey J, Leopold DA. "Radiographic distribution of drops and sprays within the sinonasal cavity", presentation at American Rhinologic Society Annual Meeting, 2008.

**O'Brien EK**. "The unified Airway: rhinitis, rhinosinusitis, and asthma". Presented at 4<sup>th</sup> Annual UI Asthma Center Conference: Asthma: Pathogenesis, Precipitants, & Practice. May 2009.

**O'Brien EK**. "Identification of the microbiome of middle ear effusion by pyrosequencing". Poster, 2010 Human Microbiome Research Conference, St. Louis, MO, August 2010

**O'Brien EK**. "Microbiome of Normal Sphenoid Sinuses". Poster, Combined Otolaryngologic Spring Meeting, American Rhinologic Society, Chicago IL, April 2011

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Potash AE, **O'Brien EK**. "A case report of sphenoid bony obliteration and clival erosion from a fungus ball". Poster, Combined Otolaryngologic Spring Meeting, American Rhinologic Society, Chicago, IL, April 2011

Clinger J, Pagedar NA, **O'Brien EK**. "Inverted Papilloma with Invasive Adenosquamous Carcinoma: Case Report and Review". Poster, Combined Otolaryngologic Spring Meeting, American Rhinologic Society, Chicago IL, April 2011

**C. Research**

1993 DePauw University, Department of Biological Sciences  
Field studies in the natural selection of pupal color in swallowtail butterflies. Advisor: Wade N. Hazel, PhD

1994 Eli Lilly and Company, Indianapolis, IN  
Summer Internship Program

1995-1996 Methodist Research Institute, Methodist Hospital,  
Indianapolis, IN  
Summer Student Research Program, Department of Radiology

1995 Harvard Medical School, Mucosal Immunology Laboratory  
Science Research Fellows Semester Off-Campus Research  
Internship Molecular biology research in the downstream ligands of  
CD40 binding protein. Advisor: Bobby J. Cherayil, MD

1997 University of Pittsburgh, Division of Molecular Diagnostics,  
Department of Pathology  
Medical Student Research Program, Medical Alumni Association  
Amplification of cheek swab DNA samples for association studies.  
Advisor: Garth D. Ehrlich, PhD

2001-2003 University of Iowa Hospitals and Clinics, Department of  
Pediatrics NIH Research Fellowship. Genotyping and linkage and  
association studies for cleft lip and palate and specific language  
impairment. Advisor: Jeffrey C. Murray, MD

2002-2006 University of Iowa, Department of Anatomy and Cell Biology  
NIH Research Fellowship. Neural crest and craniofacial  
development in zebrafish knock-down models of AP-2a and IRF-6.  
Advisor: Robert A. Cornell, PhD

COLLEGE OF MEDICINE CURRICULUM VITAE

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2008- University of Iowa Department of Microbiology. Microbiome of Upper Airway sites in normal and infected tissue. Advisor: Michael A. Apicella MD

**IV. SERVICE**

**A. Professional Memberships**

2001-present American Academy of Otolaryngology  
2001-2003 American Society of Human Genetics  
2005 American Academy of Otolaryngic Allergy  
2007- American Rhinologic Society  
2008- American Board of Otolaryngology, Diplomate  
2011- North American Skull Base Society

**B. Community Activities**

1994-1995 Volunteer, Plainfield Juvenile Correctional Facility, Plainfield, IN  
1996-1997 Volunteer, Birmingham Free Medical Clinic, Pittsburgh, PA  
1997-2000 Treasurer, University of Pittsburgh School of Medicine, Class of 2000  
1997 Interviewer, University of Pittsburgh School of Medicine Office of Admissions  
2002 Operation Smile, Naga City, Camarines Sur, Philippines