

## Curriculum Vitae and Bibliography

### Randall Flick, MD, MPH

#### Personal Information

Place of Birth: Fargo, ND  
Citizenship: United States of America  
Work Address: Mayo Clinic Rochester  
200 First St SW  
Rochester, MN 55905-0001  
507-255-1246  
Email Address: flick.randall@mayo.edu

#### Present Academic Rank and Position

**Consultant** - Department of Anesthesiology and Perioperative Medicine, Mayo Clinic, Rochester, Minnesota 07/1998 - Present  
**Consultant (Joint Appointment)** - Division of Pediatric Critical Care Medicine, Department of Pediatric and Adolescent Medicine, Mayo Clinic, Rochester, Minnesota 07/1998 - Present  
**Medical Director** - Mayo Clinic Children's Center, Rochester, Minnesota 06/2014 - Present  
**Professor of Anesthesiology** - Mayo Clinic College of Medicine and Science 04/2017 - Present  
**Professor of Pediatrics** - Mayo Clinic College of Medicine and Science 10/2017 - Present

#### Education

St. Luke's Hospital School of Nursing - RN 1980  
Moorhead State University - BA, Biology 1983  
University of North Dakota School of Medicine - MD 1987  
St. Louis Children's Hospital, Washington University, St. Louis, Missouri - Internship, Pediatrics 1987 - 1988  
St. Louis Children's Hospital, Washington University, St. Louis, Missouri - Resident, Pediatrics 1988 - 1990  
Barnes Hospital, Washington University, St. Louis, Missouri - Resident, Anesthesiology 1990 - 1992  
The Johns Hopkins Hospital - Fellow, Advanced Specialty Training in Pediatric Anesthesiology and Intensive Care 1992 - 1995  
Johns Hopkins Bloomberg School Of Public Health - MPH 1994

#### Additional Education

Career and Leadership Development II Mayo Clinic, Rochester, Minnesota 10/2007  
Career and Leadership Development Module 11: Chairs and Executive Teams, Rochester, Minnesota 10/2011

## Certification

### Board Certifications

#### American Board of Anesthesiology

Anesthesiology	1994 - Present
Pediatric Anesthesiology	2014 - 2024

#### American Board of Pediatrics

Pediatrics/General Pediatrics	1990 - Present
Pediatrics/Pediatric Critical Care Medicine	2013 - Present

#### American Heart Association (AHA)

Advanced Cardiovascular Life Support (ACLS)	2016 - 2018
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#### National Board of Medical Examiners (NBME)

Diplomate	1988 - Present
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#### Mayo Clinic Quality Academy

Mayo Clinic Quality Fellow: Bronze Level Certification	2011
Mayo Clinic Quality Fellow: Silver Level Certification	2013

## Licensure

Maryland	(Medical)	01/1992 - 1995
Minnesota	38171 (Medical)	01/1995 - Present
Arizona	24801 (Medical)	01/1997 - Present
Florida	ME75810 (Medical)	01/1998 - Present
Wisconsin	64152-20 (Medical)	06/2015 - Present
North Dakota	13608 (Medical)	06/2015 - Present

## Honors and Awards

<b>Alpha Omega Alpha Honor Society</b> - Alpha Omega Alpha Honor Medical Society	01/1985
<b>Excellence in Teaching Recognition, Department of Anesthesiology</b> - Mayo Medical School, Mayo Clinic College of Medicine	01/2005
<b>Excellence in Teaching Recognition, Department of Pediatric &amp; Adolescent Medicine</b> - Mayo Medical School, Mayo Clinic College of Medicine	01/2005

## Previous Professional Positions and Major Appointments

<b>Transport Physician, Pediatric and Neonatal Services</b> - St. Louis Children's Hospital, Washington University, Unknown	1988 - 1990
<b>Attending Physician, Emergency Room</b> - St. Louis Children's Hospital, Washington University, Unknown	1990 - 1992
<b>Consulting Pediatrician for Labor, Delivery, and Neonatal Services</b> - St. Luke's Hospital, St. Louis, MO, Unknown	1990 - 1992
<b>Consulting Pediatrician for Labor, Delivery, and Neonatal Services</b> - Franklin Square Hospital, Baltimore, Maryland	1992 - 1995
<b>Instructor in Anesthesiology, Division of Pediatric Anesthesia, Department of Anesthesia</b> - Johns Hopkins University School of Medicine and Hospital, The Johns Hopkins University, Unknown	1993 - 1995
<b>Senior Associate Consultant</b> - Department of Anesthesiology and Perioperative Medicine, Mayo Clinic, Rochester, Minnesota	07/1995 - 07/1998
<b>Senior Associate Consultant (Joint Appointment)</b> - Division of Pediatric Critical Care Medicine, Department of Pediatric and Adolescent Medicine, Mayo Clinic, Rochester, Minnesota	07/1995 - 07/1998
<b>Instructor in Anesthesiology</b> - Mayo Clinic College of Medicine and Science	10/1995 - 03/2001
<b>Assistant Professor in Anesthesiology</b> - Mayo Clinic College of Medicine and Science	04/2001 - 09/2010
<b>Chair</b> - Division of Pediatric Anesthesia, Department of Anesthesiology and Perioperative Medicine, Mayo Clinic Rochester, Mayo Clinic, Rochester, Minnesota	12/2006 - 12/2013
<b>Medical Director</b> - Mayo Eugenio Litta Children's Hospital, Mayo Clinic, Rochester, Minnesota	07/2009 - 07/2014
<b>Associate Professor in Anesthesiology</b> - Mayo Clinic College of Medicine and Science	10/2010 - 03/2017
<b>Associate Professor in Pediatrics</b> - Mayo Clinic College of Medicine and Science	05/2011 - 09/2017
<b>Quality Chair</b> - Department of Pediatric and Adolescent Medicine, Mayo Clinic, Rochester, Minnesota	07/2011 - 12/2014

## Professional and Community Memberships, Societies, and Services

### Professional Memberships and Services

American Academy of Pediatrics	
Fellow	
Member	01/1990 - Present
AAP Section on Anesthesiology Executive Committee	
Member	01/2015 - Present
American Society of Anesthesiologists	
Committee on Annual Meeting Oversight	
Member	2013 - 2015
Committee on Pediatric Anesthesia	
Member	01/2004 - Present

Chair	10/2013 - 12/2017
Committee on Physician Resources	
Member	01/2000 - 01/2004
Educational Track Subcommittee on Pediatric Anesthesia	
Member	2009 - 01/2015
Vice Chair	10/2010 - 10/2013
Chair	10/2013 - 10/2015
AmeriCares Foundation	
Medical Advisor	05/2008 - Present
Association of University Anesthesiologists	
Member	2014 - Present
Food and Drug Administration	
Anesthetic and Analgesic Drug Products Advisory Committee (AADPAC)	
FDA Panel NDA Review	
Member	01/2009 - 01/2017
Chair	2011 - 01/2017
IARS/US FDA SmartTots Affiliate Advisory Committee	
Member	11/2010 - Present
Minnesota Medical Association	
Zumbro Valley Medical Society	
Member	01/2007 - 01/2010
Delegate	01/2007 - 01/2012
Minnesota Society of Anesthesiologists	
Member	01/1995 - Present
MMA Liaison	2004 - 2010
Committee on Pediatric Perioperative Guidelines	
Chair	01/2001 - 01/2003
National Institutes of Health	
National Institute of Child Health and Human Development	
Grant Applications Reviewer	2012 - Present
Pediatric Anesthesia Fellowship Board of Directors	
Member	2008 - 2011
President-Elect	2009 - 2011
Smile Network International	
Medical Director	01/2004 - 01/2007
Member	2004 - 2008
Board of Directors	
Member	01/2004 - 01/2007
Society for Pediatric Anesthesia Winter Meeting	
Program Director	01/2007 - 01/2008
Society for Pediatric Anesthesia	
1st Joint Meeting of Society for Pediatric Anesthesia and the Chinese Society of Anesthesiology	
Program Chair	01/2009

Board of Directors	
Member	01/2009 - Present
Secretary/Treasurer	10/2012 - 10/2014
President-Elect	10/2014 - 09/2016
President	10/2016 - 10/2018
Bylaws Committee	
Chair	2008 - 2012
Member	10/2008 - 10/2013
Committee on Education	
Member	01/2004 - 10/2016
Chair	10/2014 - 10/2016
Curriculum Committee	
Member	01/2004 - 10/2012
Fellowship Director Committee	
Member	01/2004 - 10/2011
Finance Committee	
Chair	10/2012 - 10/2014
Fundamentals of Pediatric Anesthesia	
Program Chair	
International Assembly Pediatric Anesthesia	
Program Chair	01/2012
Society of Academic Anesthesiology Associations	
Association of Anesthesiology Subspecialty Program Director	
Member	2009 - 01/2011
Study Group on Pediatric Anesthesia	
Member	1997 - 2006
Subcommittee on Epidemiology	
Member	1998 - 2006
Co-Chair	1998 - 2006
The Smile Train	
Grant Reviewer	2007 - 2011
Member	2007 - 2011
Thrasher Foundation	
Grant Applications Reviewer	2012 - 2016
Volunteers in Plastic Surgery	
Member	2007 - 2011
Steering Committee	
Member	2007 - 2011
World Congress of Anesthesiology	
Pediatrics Scientific Subcommittee for the 2016 Annual Meeting	
Member	2014 - 2016

**Community Memberships and Services**

Ronald McDonald House	
Board of Trustees	
Member	01/2000 - 01/2006
President	01/2003 - 01/2004
Growth Options Task Force	
Member	01/2000 - 01/2001
Medical Advisory Board	
Member	01/2002 - 01/2012
Chair	01/2002 - 01/2012
Nominations Committee	
Chair	01/2003 - 01/2004
Member	01/2003 - 01/2004
Strategic Planning Workgroup	
Member	01/2004 - 01/2005
Foundation Board Development Workgroup	
Chair	01/2005 - 01/2006

**Study Sections**

Agency for Healthcare Research and Quality: Systemic Review on Tonsillectomy	
Panel Member	04/2015 - 04/2016

**Journal Responsibilities****Journal Editorial Responsibilities**

Clinics in Perinatology	
Pain Management in the Peripartum Period	
Guest Editor	09/2013

**Journal Other Responsibilities**

Anesthesia & Analgesia Reviewer	01/1997 - Present
Anesthesiology Reviewer	01/2005 - Present
Canadian Journal of Anaesthesia Reviewer	12/2007 - Present
Critical Care Reviewer	01/1998 - Present
JAMA Reviewer	2011 - Present
Journal of Clinical Anesthesia Reviewer	01/2007 - Present
Mayo Clinic Proceedings Reviewer	01/1997 - Present
New England Journal of Medicine Reviewer	2011 - Present
Pain Reviewer	01/1997 - Present
Pediatrics Reviewer	2014 - Present
Pharmacology Reports Reviewer	01/2007 - Present

**Educational Activities****Curriculum and Course Development**

Medical Student Supervisor Department of Anesthesiology Rochester, Minnesota	1995 - 2007
Developed curriculum and initiated successful application for pediatric anesthesiology fellowship. Mayo Graduate School of Medical Education Rochester, Minnesota	2003

**Teaching Intramural**

Mayo Clinic CRNA Postgraduate Lecture Series Mayo School of Health Related Sciences Rochester, Minnesota	1995 - Present
Department of Pediatrics, Pediatric Morning Report Mayo Graduate School of Medicine Rochester, Minnesota	1995 - 2000
Conscious Sedation Class presented to nursing staff Mayo School of Health Related Sciences Rochester, Minnesota	1995 - 2000

Pediatric Critical Care Core Lecture Series Mayo Graduate School of Medicine Rochester, Minnesota	1995 - 2002
Pediatric Resident Core Lecture Series Mayo Graduate School of Medicine Rochester, Minnesota	1995 - 2002
Nitrous oxide and postoperative nausea and vomiting. Department of Anesthesia, Pediatric Conference Rochester, Minnesota	04/1998
The Pediatric Patient/Pediatric Anesthesia Anesthesia Grand Rounds Rochester, Minnesota	07/1998
Tracheoesophageal fistula; anesthetic management. Department of Anesthesia, Pediatric Conference Rochester, Minnesota	08/1998
Firearm Injuries in Children Mayo Clinic Pediatric Days Rochester, Minnesota	09/1998
Sevoflurane and Emergence Excitement in Children Anesthesia Grand Rounds Rochester, Minnesota	11/1998
Ventilator management of infants. Department of Anesthesia, Pediatric Conference Rochester, Minnesota	12/1998
Introduction to Anesthesia Lectures Pediatric Anesthesia Mayo Medical School Rochester, Minnesota	1999 - Present
Facilitator, Pediatric Resident Weekly Case Conference Department of Pediatrics Rochester, Minnesota	1999 - 2000
Sevoflurane pharmacology in children. Department of Anesthesia, Pediatric Conference Rochester, Minnesota	06/1999
The pediatric airway. Department of Anesthesia, Pediatric Conference Rochester, Minnesota	09/1999
Coordinator, MMS IV Pediatric Critical Care Rotation Rochester, Minnesota	2000
Adventures in the pediatric airway. Department of Anesthesia, Pediatric Conference Rochester, Minnesota	03/2000
Non-accidental trauma in children. Department of Anesthesia, Pediatric Conference Rochester, Minnesota	06/2000
The Pediatric PAME Department of Anesthesia, Resident Lecture	06/2000
Anesthesia for dwarves and other little people. Department of Anesthesia, Pediatric Conference	07/2000



The myopathic pediatric patient. Department of Anesthesia, Pediatric Conference	10/2000
Anesthesia for Duchenne's muscular dystrophy. Department of Anesthesia, Pediatric Conference	02/2001
Sevoflurane and emergence excitement. Department of Anesthesia, Pediatric Conference	04/2001
Pediatric Pearls. Department of Anesthesia, Pediatric Conference	11/2001
Neonatal surgical emergencies. Department of Anesthesia, Pediatric Conference	03/2002
Anesthesia for the Down syndrome patient. Department of Anesthesia, Pediatric Conference	05/2002
The Pediatric Induction. Department of Anesthesia, Pediatric Conference	07/23/2002
Tidal Volume Monitoring in Children Department of Anesthesia, Pediatric Conference	11/26/2002
Developmental approach to the pediatric patient. Department of Anesthesia, Pediatric Conference	02/2003
Halothan versus Sevoflurane: Do we still need Halothane? Department of Anesthesia, Pediatric Conference	05/06/2003
Clinical effects of hypercardia. Department of Anesthesia, Pediatric Conference	08/19/2003
Pediatric Infectious Disease in the Operating Room Setting Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	02/03/2004
Nonaccidental Trauma in Children Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	04/20/2004
Perioperative Glucose Management in the Pediatric Patient Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	06/15/2004
Duchenne Muscular Dystrophy and Anesthesia Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	08/31/2004
Management of Pulmonary Blood Flow in the Fontan Patient Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	11/30/2004
Non-accidental trauma in children. Department of Anesthesia, Pediatric Conference Rochester, Minnesota	01/18/2005
Perioperative glucose management in pediatric patients. Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	04/19/2005
Tonsillectomy and Obstructive Sleep Apnea in Children Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	07/26/2005

Initial management of pediatric trauma. Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	02/07/2006
Obesity, sleep apnea, and tonsillectomy. Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	06/13/2006
Pediatric infectious diseases in the operating room setting. Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	08/08/2006
Non-accidental trauma in children Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	05/01/2007
Moderator - Anesthetic Agents in Neonates and Children Pediatric Anesthesia Fellows' Journal Club Rochester, Minnesota	06/2007
Risk and outcome in pediatric anesthesia Department of Anesthesiology, Grand Rounds Rochester, Minnesota	07/16/2007
Children, Obesity & Tonsillectomy Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	11/20/2007
Pediatric respiratory failure ECMO Lecture Series Rochester, Minnesota	12/2007
Pediatric Anesthesia Divisional Morbidity and Mortality Department of Anesthesiology, Grand Rounds Rochester, Minnesota	02/18/2008
Anesthesia and Learning Disabilities in Young Children Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	04/29/2008
Common Pediatric Problems with Anesthetic Implications Department of Anesthesiology, Resident Core Curriculum Rochester, Minnesota	11/03/2008
Pediatric Anesthesiology Conference Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	11/04/2008
Thoracic Epidurals from the Caudal Approach in Infants and Children Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	02/17/2009
Anesthesia Neurotoxicity Pediatric Anesthesia Journal Club Rochester, Minnesota	06/09/2009
Pediatric Infectious Disease in the Operating Room Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	09/01/2009
The U.S. Health Care System: How Much Do You Know? Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	12/22/2009

Adventures in the Pediatric Airway Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	03/02/2010
Common Medical & Surgical Problems in Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	03/04/2010
Anesthesia and the Child with Muscular Dystrophy Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	09/07/2010
Anesthetic Related Neurotoxicity: An Update Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	02/01/2011
Common Medical & Surgical Problems in Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	03/02/2011
Neonatal Physiology Department of Anesthesiology, Resident Core Curriculum Rochester, Minnesota	05/16/2011
Non-accidental Trauma: The Role and Responsibilities of the Pediatric Anesthesiologist Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	08/02/2011
Airway Management & Transport in Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	09/07/2011
Pediatric Anesthesia On-Call: The Toddler with Suspected Aero-esophageal Foreign Body Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	02/14/2012
Common Medical & Surgical Problems in Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	03/07/2012
Airway Management & Transport of Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	08/29/2012
Airway Management & Transport of Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	09/26/2012
Common Medical & Surgical Problems in Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	02/26/2013
Management of Adults with Congenital Heart Disease Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	04/09/2013
Anesthetic Related Neurotoxicity in Children Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	11/26/2013
Airway Management & Transport of Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	12/18/2013

Anesthesia for Achondroplasia Department of Anesthesiology, Pediatric Conference Rochester, Minnesota	04/08/2014
Airway Management & Transport of Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	12/17/2014
Common Medical & Surgical Problems in Pediatric Patients Pediatric Anesthesia Fellow Lecture Series Rochester, Minnesota	02/25/2015
Anesthetic Related Neurotoxicity in the Young Department of Anesthesiology, Pediatric Anesthesia Conference	11/24/2015
Airway Management & Transport of Pediatric Patients Pediatric Anesthesia/PICU Fellows Lecture	12/16/2015
Common Medical & Surgical Problems in Pediatric Patients Pediatric Anesthesia/PICU Fellows Conference	02/24/2016
Neonates, Infants, Children: Defining Normal Department of Anesthesiology, Pediatric Anesthesia Conference	09/13/2016
Adventures in the Pediatric Airway Pediatric Anesthesia Fellowship Lecture Series	04/26/2017
New Observational Studies of Anesthetic-Related Neurotoxicity Department of Anesthesiology, Pediatric Anesthesia Conference	06/06/2017
Neurotoxicity Pediatric Anesthesia Fellowship Lecture Series	02/28/2018

### Mentorship

Pogodzinski, Matt (ENT Resident) <b>Description:</b> <b>Current Status:</b> Private Practice, Chicago, IL <b>Outcome:</b> Preparation and publication of manuscript #5 and abstract #3	01/2003
Herr, Molly (Anesthesia Fellow) <b>Description:</b> <b>Current Status:</b> Supplemental consultant Division of Pediatric Anesthesia, Mayo Clinic Rochester. <b>Outcome:</b> Preparation and publication of abstracts #4 and 10	01/2003 - 01/2004
Gleich, Stephen (Medical Student) <b>Description:</b> <b>Current Status:</b> Critical Care Medicine Fellow, Mayo Clinic Rochester <b>Outcome:</b> Preparation and publication of manuscripts 6, 7, 8, 9, 11, 12, 39, 41, 44 and abstracts 7, 11, 12, 13, 14, 15.	01/2005 - 01/2007
Harrison, Tracey (Pediatric Anesthesiology Fellow) <b>Description:</b> <b>Current Status:</b> Consultant, Anesthesiology, Mayo Clinic Rochester. <b>Outcome:</b> Preparation and publication of manuscript #7 and abstracts #7, 8, 10, 11, 12	07/2005 - 06/2006
Haile, Dawit (Pediatric Anesthesiology Fellow) <b>Description:</b> <b>Current Status:</b> Consultant, Anesthesiology, Mayo Clinic Rochester <b>Outcome:</b> Preparation and publication of book chapter #3 and abstracts #16, 17	07/2006 - 06/2007

Pike, Tasha (Medical Student)	01/2007 - Present
<b>Description:</b>	
<b>Current Status:</b> Anesthesiology resident, Mayo Clinic Rochester	
<b>Outcome:</b> Preparation and publication of manuscript #13	
Arendt, Katie (Anesthesia Resident)	01/2007
<b>Description:</b>	
<b>Current Status:</b> Consultant, Anesthesiology, Mayo Clinic Rochester	
<b>Outcome:</b> Preparation and publication of abstract #16, 19	
Burns, Amy (Pediatric Anesthesiology Fellow)	07/2007 - 06/2008
<b>Description:</b>	
<b>Current Status:</b> Consultant, Wolfson Children's Hospital, Jacksonville, FL	
<b>Outcome:</b>	
Mickelson, Christopher (Pediatric Anesthesiology Fellow)	07/2007 - 06/2008
<b>Description:</b>	
<b>Current Status:</b> Consultant, Minneapolis Children's Hospital, Minneapolis, MN	
<b>Outcome:</b> Preparation and publication of manuscript #12	
Olson, Mike (Medical Student)	01/2008 - Present
<b>Description:</b>	
<b>Current Status:</b> ENT resident, Mayo Clinic Rochester	
<b>Outcome:</b> Preparation and publication of manuscripts #24, 25, 27	
Kenyon, Christine (Pediatric Anesthesiology Fellow)	01/2008 - 01/2009
<b>Description:</b>	
<b>Current Status:</b> Consultant, Aurora St. Luke's Medical Center, Milwaukee, WI	
<b>Outcome:</b> Presentation at Society for Pediatric Anesthesia abstract #20 Book Chapter #13, 18	
Groenewald, Cornelius (Pediatric Anesthesiology Fellow)	01/2008 - 01/2011
<b>Description:</b>	
<b>Current Status:</b> Consultant, Seattle Children's Hospital, Seattle, WA	
<b>Outcome:</b> Preparation and publication of manuscripts #16 and 29	
Rabbits, Jennifer (Pediatric Anesthesiology Fellow)	01/2009 - 01/2010
<b>Description:</b>	
<b>Current Status:</b> Consultant, Seattle Children's Hospital, Seattle, WA	
<b>Outcome:</b> Preparation and publication of manuscripts #16 and 29. Abstract #20 presented at Pediatric Anesthesia 2009.	
Shakespeare, William (Anesthesia Resident)	01/2009 - 01/2010
<b>Description:</b>	
<b>Current Status:</b> Consultant, Anesthesiology, Salt Lake City, UT	
<b>Outcome:</b> Preparation and publication of book chapters #8 and 14	
Dutoit, Andrea (Pediatric Anesthesiology Fellow)	01/2010 - 01/2011
<b>Description:</b>	
<b>Current Status:</b> Consultant, Children's Specialty Physicians, Oklahoma City, OK	
<b>Outcome:</b> Preparation and publication of manuscript #15 and book chapter #10	
Grim, Kendra (Pediatric Anesthesiology Fellow)	01/2010 - 01/2011
<b>Description:</b>	
<b>Current Status:</b> Consultant, Anesthesiology, Mayo Clinic Rochester	
<b>Outcome:</b> Preparation and publication of manuscript #28	
Strupp, Kimberly (Anesthesia Fellow)	07/2012 - 06/2016
<b>Description:</b>	
<b>Current Status:</b> Assistant Professor Children's Hospital of Colorado/University of Colorado	
<b>Outcome:</b> Ref 44	

Nemergut, Michael (Associate Consultant) <b>Description:</b> <b>Current Status:</b> Assistant Professor Anesthesiology, Mayo Clinic <b>Outcome:</b> ref 34,40 chapter 19	07/2012 - 09/2016
Aganga, Devon (Associate Consultant) <b>Description:</b> <b>Current Status:</b> Consultant, Anesthesiology, Mayo Clinic Rochester <b>Outcome:</b> Preparation and publication of manuscript #34	07/2013 - Present
Hu, Danqing (Doctoral Student) <b>Description:</b> <b>Current Status:</b> Doctoral Fellow, Anesthesiology, Mayo Clinic Rochester <b>Outcome:</b> Preparation and publication of manuscript #39	07/2013 - Present
Kaushik, Vashistha (Pediatric Resident) <b>Description:</b> ref 40 <b>Current Status:</b> Hospitalist, San Antonio, TX <b>Outcome:</b>	07/2014 - 08/2015
Bjur, Kara <b>Description:</b> Anesthetic-related Neurotoxicity and Neuroimaging in Children: a Call for Conversation Pediatric Neurology in review <b>Current Status:</b> Mayo Clinic Scholar and Fellow in Pediatric Critical Care <b>Outcome:</b> Consulted Mayo Clinic expected 7/17	07/2015 - 09/2016
William, Mauermann (Associate Consultant) <b>Description:</b> book chapter # 8, 10 <b>Current Status:</b> Associate Professor of Anesthesiology and Chair, Division of Cardiovascular Anesthesiology, Mayo Clinic <b>Outcome:</b>	09/2016

**Academic Career Development**

Patent Safety Executive Development Program Institute for Healthcare Improvement Cambridge, Maine	09/2012 - 09/2012
Executive Coaching Mayo Clinic Rochester	01/2015 - 02/2016
Mayo Clinic and Arizona State University Physician Leadership Business Academy Arizona State University Tempe, Arizona	04/2015 - 04/2015

**Institutional/Departmental Administrative Responsibilities, Committee Memberships and Other Activities**

**Mayo Clinic**

Mayo Clinic Children's Center Quality and Hospital Operations Committee Chair	07/2012 - 06/2015
Quality and Hospital Operations Executive Committee Chair	07/2012 - 06/2015
Mayo Clinic Committees Intensive Care Unit Committee Member	01/1997 - 01/2001

Mayo Clinic Marketing Committee	
Member	01/1997 - 01/2002
Referring Physicians Task Force	
Member	01/1997 - 01/2001
Chair	01/1999 - 01/2001
Pediatric Council	
Member	01/1997 - 01/2001
Marketing Subcommittee	
Member	01/1997 - 01/2001
Chair	01/1997 - 01/2001
Regional Physicians Relationships Workgroup	
Chair	01/2000 - 12/2000
Member	01/2000 - 12/2000
Midwest Finance Advisory Council	
Member	07/2014 - 02/12/2016
Pediatric Anesthesia Section	
Member	04/2003 - 12/2006
<b>Mayo Clinic in Rochester</b>	
Department of Anesthesiology and Perioperative Medicine	
Member	01/1995 - Present
Member	01/1995 - Present
Administrative Committee	
Member	01/2005 - 01/2014
Call Committee	
Member	04/2003 - 09/2006
Clinical Practice Committee	
Member	01/1997 - 02/12/2016
Pediatric Anesthesia Practice	
Section Head	04/2003 - 12/2006
Pediatric Fellowship	
Director	2003 - 2011
Department of Pediatric and Adolescent Medicine	
Member	01/1997 - Present
Clinical Practice Committee	
Member	01/1997 - 01/2002
Conscious Sedation Task Force	
Member	01/1997 - 01/2001
Education Executive Committee	
Member	01/2011 - 01/2014
Pediatric Critical Care	
Member	01/1995 - 01/2002
Section Head	02/2000 - 01/2002
Pediatric Critical Care Committee	
Member	01/1995 - 01/2002

Chair	01/2000 - 01/2002
Mayo Clinic Children's Center Children's Center Executive Operations Team Chair	06/04/2014 - Present
Mayo Clinic Rochester Committees Clinical Practice Committee - Rochester Child and Adolescent Committee Member	01/2009 - 01/01/2011
Children's Hospital Operations Committee Member	01/2009 - 01/2013
Chair	01/2009 - 01/2013
Clinical Practice Quality Oversight Subcommittee - Rochester Member	04/2010 - 07/2014
Hospital Practice Committee Member	01/2009 - Present
Discharge Oversight Subcommittee Member	10/2012 - 07/2014
Emergency Preparedness Subcommittee Member	03/2012 - 08/2013
Trauma Committee Pediatric Trauma Committee Member	01/2008 - 05/2012
Mayo Clinic Rochester Workgroups Geographic Target Initiatives Workgroup--Fargo/Grand Forks Member	10/2003 - 09/2008
Mayo Clinic Service Coalition Member	06/2011 - 05/2013
Midwest Hospital Optimization Taskforce Member	2014 - 04/01/2015
Patient Experience Committee Member	10/2013 - 07/2014

## Presentations Extramural

### National or International

#### Invited

Prevention of Acute Renal Failure from Tumor Lysis Syndrome in Infant with Acute Leukemia World Congress of Pediatric Nephrology Sydney, Australia	08/18/1997
Airbag Injuries in Children Mayo Clinic Pediatric Days Rochester, Minnesota	09/09/1997
Anesthesia for Pheochromocytoma 10th Asean Congress of Anaesthesiologists Chaing Mai, Thailand	12/02/1997



Sevoflurane and Emergence Excitement for in Children 10th Asean Congress of Anaesthesiologists Chaing Mai, Thailand	12/16/1997
Pediatric Airway Case Problems 8th Annual Current Topics in Anesthesiology Phoenix, Arizona	02/13/1998
Interesting Pediatric Anesthesia Challenges 8th Annual Current Topics in Anesthesiology Phoenix, Arizona	02/27/1998
Useful Blocks in the Pediatric Patient 7th Annual Advances in Clinical Anesthesiology Amelia Island, Florida	03/05/1998
Pediatric Anesthesia Airway Problems The Mayo Clinic--Helsinki University Children's Hospital Pediatric Anesthesia & Intensive Care Symposium Helsinki, Finland	09/17/1998
Utilization of Anesthesia Services by Young Infants in the United States in 1994 American Society of Anesthesiologists Orlando, Florida	10/18/1998
Interesting Challenges in Pediatric Anesthesia 9th Annual Current Topics in Anesthesiology Phoenix, Arizona	02/04/1999
Sevoflurane and Emergence Excitement in Children 33rd Congress of Turkish Society of Anesthesiology and Reanimation Mersin, Turkey	10/01/1999
Anesthetic considerations and management of patients with a mediastinal mass. Japanese Society of Cardiovascular Anesthesia. Hiroshima, Japan	10/18/1999
Sevoflurane and Emergence Excitement in Children 10th Annual Current Topics in Anesthesiology Phoenix, Arizona	02/07/2000
Decision Making in Pediatric ARDS Helsinki University Children's Hospital Pediatric Anesthesia & Intensive Care Symposium Helsinki, Finland	05/29/2000
Adventures in the Pediatric Airway. South Dakota Society of Anesthesiologists Chamberlain, South Dakota	10/12/2001
Use of Inhaled Prostacyclin in the Management of Pulmonary Hypertension 20th Annual Symposium, Clinical Update in Anesthesiology Paradise Island, Bahamas	01/17/2002
Adventures in the Pediatric Airway Annual Meeting of the Vietnamese Society of Anesthesiology DaNang, Vietnam	08/10/2002
Postoperative Management of the Fontan Patient Clinical Update in Anesthesiology Antigua, Antigua and Barbuda	01/09/2003
Do We Still Need Halothane? Clinical Update in Anesthesiology and Intensive Care Medicine Antigua, Antigua and Barbuda	01/10/2003

Adventures in the Pediatric Airway Annual Spring Meeting of the Finnish Society of Anesthesiologists Tampere, Finland	05/14/2003
Regional Techniques in the Pediatric Patient Asian and Oceanic Society of Regional Anesthesia and Pain Medicine Bangkok, Thailand	11/13/2003
Do We Still Need Halothane? 22nd Annual Symposium: Clinical Update in Anesthesiology Acapulco, Mexico	01/10/2004
Case Studies in the Pediatric Airway Clinical Update in Anesthesia and Critical Care Antigua, Antigua and Barbuda	05/01/2004
LMA, Proseal, and Fast TRAC 5th European Congress of Otorhinolaryngology Rhodes, Greece	09/29/2004
Who Should Anesthetize This Sick Child at Your Institution? American Society of Anesthesiologists Las Vegas, Nevada	10/16/2004
Pro-Con: Anesthesia for the Myopathic Patient Society for Pediatric Anesthesia Miami Beach, Florida	02/03/2005
Controversies in Pediatric Anesthesia. 15th Annual Current Topics in Anesthesia Phoenix, Arizona	02/22/2005
Risk and outcome in pediatric anesthesia. Minnesota Society of Anesthesiologists Spring Meeting Minneapolis, Minnesota	04/21/2005
Adventures in the Pediatric Airway. Selected Topics in Anesthesia and Croatian Anesthesiology Dubrovnik, Croatia	05/05/2005
Risk and Outcome in Pediatric Anesthesia American Society of Anesthesiologists Atlanta, Georgia	10/20/2005
Difficult Airway Workshop. Society for Pediatric Anesthesia Fort Myers, Florida	02/23/2006
Pediatric Sedation Services: Pediatric Anesthesia Base Model American Society of Anesthesiologists Chicago, Illinois	10/16/2006
Medical Volunteerism: Minimizing Risk and Ensuring Quality American College of Surgeons Annual Meeting New Orleans, Louisiana	10/01/2007
PACU Dilemmas in Children: Emergence Delirium American Society of Anesthesiologists Annual Meeting San Francisco, California	10/13/2007
Minimizing Risk in the Developing World. Forum on International Care. American Society of Plastic Surgeons Annual Meeting. Baltimore, Maryland	10/16/2007

Growing Up With Anesthesia & Neuromuscular Disease: Should We Be Nervous? Society for Pediatric Anesthesia Fall Meeting Orlando, Florida	10/01/2008
Risk of Adverse Events in Children: Arrest, Aspiration, Asthma and More American Society of Anesthesiology Annual Meeting Orlando, Florida	10/25/2008
Neonatal Emergencies American Society of Anesthesiologists Annual Meeting Orlando, Florida	10/30/2008
Clinical Perspectives in Anesthetic Toxicity Society of Pediatric Anesthesia Winter Meeting Jacksonville, Florida	03/06/2009
Grown Up With a Pediatric Disease: Your Pediatric Anesthesiologist to the Rescue American Society of Anesthesiologists Refresher Course New Orleans, Louisiana	10/15/2009
Pediatric Infectious Disease in the Operating Room American Society of Anesthesiologists Annual Meeting New Orleans, Louisiana	10/15/2009
Anesthetic Exposure and Neurotoxicity in Young Children IARS Honolulu, Hawaii	03/21/2010
Role of Anesthetics in Learning Disabilities Scientific Symposium on Anesthesia and Neurodevelopment in Children New York, New York	05/08/2010
Anesthetic Exposure and Neurotoxicity in Young Children First International Workshop on Anesthesia and Alzheimer's Disease Toronto, Ontario, Canada	06/15/2010
Pediatric Preanesthetic Medical Evaluation Pediatric Days 2010 Chicago, Illinois	09/14/2010
The Effect of Early Exposure to Anesthetics on the Developing Brain American Society of Anesthesiologists Annual Meeting San Diego, California	10/17/2010
The Effect of Early Exposure to Anesthetics on the Developing Brain University of Chicago Chicago, Illinois	12/04/2010
Wheeling in of a Child in the Theatre Indian Association of Pediatric Anesthesia Indore, India	02/19/2011
The Role of Anesthetics on Learning Disabilities Mayo Clinic Symposium on Anesthesia Fort Lauderdale, Florida	03/12/2011
Complications in Pediatric Anesthesia XXIX Colombian Congress of Anesthesiology Bogota, Colombia	03/20/2011
Use of Liquids and Electrolytes in Pediatric Anesthesia XXIX Colombian Congress of Anesthesiology Bogota, Colombia	03/20/2011

The Role of Anesthetics on Learning Disabilities PAS/ASPR Denver, Colorado	05/02/2011
SmartTots: Pediatric Anesthesia Neurotoxicity International Anesthesia Research Society Vancouver, British Columbia, Canada	05/23/2011
Use of Fluids and Electrolytes in Pediatric Anesthesia The 2nd Sino-American Pediatric Anesthesia Meeting SanYa, China	05/27/2011
The Role of Anesthetics on Learning Disabilities The 2nd Sino-American Pediatric Anesthesia Meeting SanYa, China	05/28/2011
Management of ARDS in Children 2nd International Signa Vitae Conference Split, Croatia	09/02/2011
Risk and outcome in pediatric anesthesia 2nd International Signa Vitae Conference Split, Croatia	09/03/2011
Anesthetic Management of Common Pediatric Emergencies: Refresher Course Lecture American Society of Anesthesiologists Annual Meeting Chicago, Illinois	10/18/2011
Update on Neurotoxicity Research U.S. FDA Pediatric Anesthesia Safety Initiative Washington, District of Columbia	10/25/2011
Clinical Evidence for Anesthetic Related Neurotoxicity International Anesthesia Research Society Annual Meeting Vancouver, British Columbia, Canada	05/21/2012
Clinical Evidence for Anesthetic Related Neurotoxicity European Society of Anesthesiologists Paris, France	06/10/2012
Anesthetic Related Neurotoxicity: What is the Evidence? Pediatric Critical Care Colloquium Santa Monica, California	09/08/2012
Common Pediatric Emergencies: Refresher Course American Society of Anesthesiology Annual Meeting Washington, District of Columbia	10/14/2012
Clinical Evidence for Anesthetic Related Neurotoxicity American Academy of Pediatrics NCE: Inaugural Joint Surgical Keynote New Orleans, Louisiana	10/20/2012
Common Emergencies in Pediatric Anesthesia South African Society of Pediatric Anesthesiologists Bloemfontein, South Africa	11/03/2012
Risk and Outcome in Pediatric Anesthesiology Dannemiller Review of Pediatric Anesthesiology San Antonio, Texas	11/30/2012
Common Emergencies in Pediatric Anesthesia Topics in the Tropics: Medical College of Wisconsin Annual Refresher Course New Orleans, Louisiana	01/29/2013

Neurotoxicity of Anesthetics in the Young, Clinical Data 51st Clinical Conference in Pediatric Anesthesiology: Review of Pediatric Anesthesiology Anaheim, California	02/09/2013
Non-cardiac Surgery for the Patient with Cardiac Disease 51st Clinical Conference in Pediatric Anesthesiology: Review of Pediatric Anesthesiology Anaheim, California	02/09/2013
Fluid Management 51st Clinical Conference in Pediatric Anesthesiology: Review of Pediatric Anesthesiology Anaheim, California	02/10/2013
Neurodevelopmental Effect of Early Exposure to Anesthetics: An Update Mayo Clinic Symposium on Anesthesia and Perioperative Medicine Scottsdale, Arizona	02/15/2013
Clinical Evidence of Anesthetic Related Neurotoxicity SmartTots Industry Briefing (pharmaceutical industry representatives) New York, New York	03/26/2013
Clinical Evidence for Anesthetic Related Neurotoxicity Pediatric Orthopedic Society of North America Toronto, Ontario, Canada	05/03/2013
Clinical Evidence for Anesthetic Related Neurotoxicity European Society for Pediatric Anesthesiology Annual Meeting Geneva, Switzerland	09/05/2013
Anesthetic Effects on Learning Behavior in Humans American Society of Anesthesiologists Annual Meeting San Francisco, California	10/13/2013
Early Exposure to Anesthetics and Long-Term Outcomes in Children 20th Annual Anesthesia Winterlude Symposium Ottawa, Canada	02/02/2014
Anesthetic-Related Neurotoxicity in Young Children: History and Significance 2014 Pediatric Academic Societies' & Asian Society for Pediatric Research Joint Meeting Vancouver, Canada	05/06/2014
Existing Human Evidence for Cognitive and Behavioral Effects of Early Exposure to Anesthetics and Sedatives 2014 Pediatric Academic Societies' & Asian Society for Pediatric Research Joint Meeting Vancouver, Canada	05/06/2014
Pediatric Emergencies 22nd Annual Anesthesia Symposium Colorado Springs, Colorado	04/25/2015
Pediatric Emergencies 22nd Annual Colorado Anesthesia Symposium Colorado Springs, Colorado	04/25/2015
Anesthetic Related Neurotoxicity in the Young: An Update 22nd Annual Colorado Anesthesia Symposium Colorado Springs, Colorado	04/26/2015

Anesthetic-Related Neurotoxicity in Children: Clinical Evidence 42nd APAGBI Joint Annual Scientific Meeting with Society of Pediatric Anesthesia Aberdeen, Scotland	05/14/2015
Neurotoxicity in Children Colombian Congress of Anesthesiology Bogota, Colombia	06/03/2015
Anesthetic Related Neurotoxicity in Children: Clinical Evidence The 2nd China International Forum of Pediatric Development Beijing, China	10/10/2015
Anesthetic Related Neurotoxicity in the Young: An Update Shanghai Children's Hospital Shanghai, China	05/31/2016
The Effects of Anesthesia on Children's Cognitive Function and Development 2016 Annual Pediatric Anesthesia Conference of the Chinese Society of Anesthesiology Kunming Yunnan, China	06/04/2016
Quality in Pediatric Anesthesia 16th World Congress of Anesthesiologists People's Republic of China, Hong Kong	09/01/2016
A New Perspective on Radiation and Sedation Risk in Children: Should ALARA be 'as Low' or as 'Light' as Reasonably Achievable? 2016 Radiological Society of North America Annual Meeting Chicago, IL	11/29/2016
Anesthetic-related Neurotoxicity, Gas PANDA, and MASK International Winter Symposium on Enhancing Safety in Anesthesia Brussels, Belgium	02/10/2017
Developing Brain: New Study Annual Congress/Association of Anesthesiologists of Quebec Quebec City, Quebec, Canada	04/07/2017
Discussion of Cases in Pediatrics Annual Congress/Association of Anesthesiologists of Quebec Quebec City, Quebec, Canada	04/08/2017
Update on the Effect of Anesthetic Exposure on the Developing Brain: New Concerns? Colombian Society of Anesthesiology and Resuscitation Barranquilla, Colombia	06/14/2017
Perioperative Medicine in Children: How to Implement High Quality Services Colombian Society of Anesthesiology and Resuscitation Barranquilla, Colombia	06/16/2017
Anesthetic-related Neurotoxicity, Gas PANDA, and MASK Annual Meeting of the Chinese Society of Anesthesiology Shanghai, China	09/05/2017
Cognitive and Behavioral Outcomes After Early Exposure to Anesthesia and Surgery Anesthesia Camp Grand Cayman Islands, Bahamas	01/27/2018
Laryngospasm in Children During General Anesthesia Anesthesia Camp Grand Cayman Islands, Bahamas	01/27/2018

Perioperative Cardiac Arrests in Children Anesthesia Camp Grand Cayman Islands, Bahamas	01/27/2018
Anesthetic exposure and neurodevelopment in young Children: Update on GAS, PANDA, and now MASK study Indian Association of Paediatric Anaesthesiologists 2018 Hyderabad, India	02/11/2018
<b>Regional</b>	
<b>Invited</b>	
Airbag Injuries in Children Mayo Clinic Pediatric Days Rochester, Minnesota	09/16/1997
Sevoflurane and Emergence Excitement in Children Minnesota Society of Anesthesiologists Fall Meeting Bloomington, Minnesota	11/19/1999
Adventures in the Pediatric Airway 27th Annual Mayo Clinic Seminar for Nurse Anesthetists Rochester, Minnesota	10/01/2001
The Role of Anesthetics in the Development of Learning Disabilities Minnesota Society of Anesthesiologists Spring Meeting Bloomington, Minnesota	04/04/2009
The Role of Anesthetics in Learning Disabilities 10th Annual South Dakota Society of Anesthesiologists' Meeting Sioux Falls, South Dakota	09/26/2009
Effects of Anesthesia on the Developing Brain Minnesota Memorial Pediatric Orthopedic Symposium Rochester, MN	11/04/2016

## Visiting Professorship

### Visiting Professorships

Sevoflurane and emergence excitement in children Kurashiki City Hospital Kurashiki, Japan	10/07/1999
Management of Pulmonary Hypertension in Children Topics in Cardiac Anesthesia and Critical Care for Children and Adults, University of Medicine & Pharmacy at Ho Chi Minh City Ho Chi Minh City, Vietnam	11/14/2005
Basics of Regional Anesthesia for Children Mahidol University Bangkok Bangkok, Thailand	09/14/2006
Initial Stabilization and Management of Pediatric Trauma University of Medicine & Pharmacy at Ho Chi Minh City Ho Chi Minh City, Vietnam	12/2006
Risk and Outcome in Pediatric Anesthesia University of Arkansas for Medical Sciences & Arkansas Children's Hospital Little Rock, Arkansas	03/27/2007
Risk and Outcome in Pediatric Anesthesia Tongren Hospital, Beijing University Beijing, China	06/16/2007

Early Exposure to Anesthesia and Learning Disabilities in Young Children University of Iowa Iowa City, Iowa	09/2008
Early Exposure to Anesthesia and Learning Disabilities in Young Children Children's Hospital Denver, University of Colorado Denver Denver, Colorado	01/23/2009
Early Exposure to Anesthesia and Brain Disabilities in Young Children Bethesda Naval Hospital Bethesda, Maryland	02/03/2009
Early Exposure to Anesthesia and Brain Disabilities in Young Children Walter Reed Medical Center Washington, District of Columbia	02/04/2009
Clinical Perspectives on Anesthetic Neurotoxicity in Children Vanderbilt University Nashville, Tennessee	11/13/2009
Children, Anesthesia, & Learning: The Role of Anesthesia in the Development of Learning Disabilities University of Ottawa, Ontario Ontario, Canada	01/27/2010
Children, Anesthesia, & Learning: Early Exposure to Anesthesia and Subsequent Learning Disability University of Alabama Birmingham, Alabama	02/21/2010
The Risk of Anesthesia in Children: Part I and II University of Alabama Birmingham, Alabama	02/22/2010
Children, Anesthesia, & Learning: Early Exposure to Anesthesia and Subsequent Learning Disability Keynote Speaker Siriraj University 120th Anniversary Bangkok, Thailand	08/16/2010
Children, Anesthesia, & Learning: Early Exposure to Anesthesia and Subsequent Learning Disability Ho Chi Minh University Ho Chi Minh City, Vietnam	08/19/2010
Children, Anesthesia, & Learning: Early Exposure to Anesthesia and Subsequent Learning Disability University of Melbourne Melbourne, Australia	09/04/2010
Anesthetic Neurotoxicity in Children: What do we tell the kids? Seattle Children's Hospital Grand Rounds, University of Washington Seattle, Washington	09/21/2011
Keys to a Successful Academic Career Seattle Children's Hospital Anesthesia Fellows Lecture, University of Washington Seattle, Washington	09/21/2011
Anesthetic Related Neurotoxicity in the Young: Clinical Evidence Omaha Children's Hospital & Medical Center, University of Nebraska Omaha, Nebraska	02/03/2012



Anesthesia and Neurodevelopment Korsair Children's Hospital, University of Kentucky Louisville, Kentucky	03/30/2012
Anesthetic Neurotoxicity in Children: What Do We Tell Our Kids? Columbus Children's Hospital, Ohio State University Columbus, Ohio	06/05/2013
Anesthetic Toxicity and the SmartTots Project Tucson Medical Center Grand Rounds, University of Arizona Tucson, Arizona	09/26/2013
Anesthesia for Proton Beam Mayo Clinic Arizona Anesthesiology Grand Rounds, Mayo School of Graduate Medical Education Scottsdale, Arizona	02/17/2014
Anesthetic Related Neurotoxicity in the Young: Clinical Evidence Johns Hopkins Pediatric Seminars, Johns Hopkins University Baltimore, Maryland	03/12/2014
Anesthetic Related Neurotoxicity in the Young: Clinical Evidence Columbia University New York, New York	05/08/2014
Anesthetic Related Neurotoxicity in the Young: An Update and Critical Review University of Wisconsin School of Medicine Grand Rounds Madison, Wisconsin	07/15/2015
The Neurotoxicity of Anesthetic and Sedative Agents in Children: What to Tell Parents Immanuel St. Josephs-Mayo Clinic Health System Grand Rounds, Mayo School of Graduate Medical Education Mankato, Minnesota	08/05/2015
Anesthetic Risks in Young Children Children's Hospitals & Clinics of Minnesota Grand Rounds, University of Minnesota Minneapolis, Minnesota	08/20/2015
Anesthetic Related Neurotoxicity in Young Children: Clinical Evidence Riley Children's Hospital, University of San Diego San Diego, California	10/23/2015
Anesthetic Related Neurotoxicity In the Young: Clinical Evidence The University of Mississippi Medical Center Anesthesia Grand Rounds Jackson, Mississippi	11/18/2015
Anesthetic Related Neurotoxicity in the Young: Clinical Evidence Children's Hospital of Pittsburgh, University of Pittsburgh Pittsburgh, Pennsylvania	03/17/2016
Anesthetic Related Neurotoxicity in the Young: Clinical Evidence St. Jude Children's Research Hospital Memphis, Tennessee	04/14/2016
I-Pass Beacon Children's Hospital; Women's and Children's Symposium South Bend, Indiana	11/03/2017

### **Clinical Practice, Interests, and Accomplishments**

Cardiac Intensive Care, ECMO, Acute Pediatric Pain, Pediatric Anesthesia

**Research Interests**

Outcomes in pediatric anesthesia, Neurodevelopment effect of anesthetic exposure, Quality in pediatric hospital care

**Research Grants Awarded****Active Grants****Federal**

Program Director / Principal Investigator	Neurodevelopment of Children Exposed to Anesthesia: A Population-Based Assessment. Funded by Eunice Kennedy Shriver National Institute of Child Health and Human Development. (R01 HD 71907)	04/2012 - 03/2019
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**Other**

Co-Investigator	Increasing Patient and Family Engagement Around Safety, Cost, and Quality. A Joint Effort of Minnesota's Children's Hospitals.. Funded by Minnesota Department of Health	01/2014 - 01/2015
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**Completed Grants****Federal**

Program Director / Principal Investigator	The Safety of Key Inhaled and Intravenous Drugs in Pediatrics (SAFEKIDS) Initiative. Funded by Food and Drug Administration. (HHSF223200810037C)	09/2008 - 11/2011
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Program Director / Principal Investigator	Patient and Family Centered Care to improve the quality of care for children - a collaboration between clinics, hospitals and payer. Funded by State of Minnesota	06/2014 - 12/2014
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**Industry**

Principal Investigator	An open-label, randomized, phase IIIB, multi-center trial to evaluate the pharmacodynamic parameters of intubation bolus and bolus and infusion maintenance doses of Zemuron« in pediatric and adolescent subjects. Funded by Organon Incorporated. (ORGANON #19, 1A6189)	11/2006 - 10/2009
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Co-Investigator	A Prospective, Randomized, Single-Center Study of the Vaxcel Peripherally Inserted Central Catheter (PICC) with PASV Valve compared to a Clamped PICC. Funded by Boston Scientific Corporation. (BOSTON #27;1A5076)	04/2004 - 03/2006
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**Mayo Clinic**

Principal Investigator	Initiative to improve efficiency in surgical care of pediatric outpatients.. Funded by Mayo Clinic Clinical Practice Innovation (CPI-10) Program	09/2004 - 09/2005
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Co-Investigator	Anesthesia During Infancy - Analgesia for Vaginal Delivery and learning Disabilities in a Population-Based Cohort: Role of Epidural Block. Funded by SGP - Small Grants Program <\$10K	03/2009 - 02/2010
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**Other**

Pearls: Pocket Resource for Pediatric Anesthesiology and Critical Care Medicine Department of Anesthesiology Rochester, Minnesota	1997
Resident Handbook: Care of the Child with Hepatic Encephalopathy Department of Anesthesiology Rochester, Minnesota	1998
Resident Handbook: Care of the Pediatric Liver Transplant Patient Department of Anesthesiology Rochester, Minnesota	1998
On-line Handbook for Pediatric Anesthesia Resident and Fellow Education Department of Anesthesiology Rochester, Minnesota	2003

## Bibliography

### Peer-reviewed Articles

1. **Flick RP**. A physiologic approach to mechanical ventilation in ARDS. Pediatric Critical Care, PICUbook, pedscm.wustl.edu, 1997.
2. Keegan MT, **Flick RP**, Matsumoto JY, Davis DH, Lanier WL. Anesthetic management for two-stage computer-assisted, stereotactic thalamotomy in a child with Hallervorden-Spatz Disease. *J Neurosurg Anesthesiol*. 2000 Apr; 12(2):107-11. PMID: 10774604
3. **Flick RP**, Schears GJ, Warner MA. Aspiration in pediatric anesthesia: is there a higher incidence compared with adults? *Curr Opin Anaesthesiol*. 2002 Jun; 15(3):323-7. PMID: 17019220
4. **Flick R**, Thompson D. The shared airway in pediatrics. *Finnanest*. 2003; 36(4):370-1.
5. Pogodzinski MS, **Flick RP**, Thompson DM. Management of synchronous subglottic stenosis and bronchial stenosis with a modified endotracheal tube. *Ann Otol Rhinol Laryngol*. 2004 Oct; 113: (10)793-6. PMID: 15535141 DOI: 10.1177/000348940411301004
6. **Flick RP**, Gleich SJ, Herr MM, Wedel DJ. The risk of malignant hyperthermia in children undergoing muscle biopsy for suspected neuromuscular disorder. *Paediatr Anaesth*. 2007 Jan; 17(1):22-7. PMID: 17184427 DOI: 10.1111/j.1460-9592.2006.02105.x
7. **Flick RP**, Sprung J, Harrison TE, Gleich SJ, Schroeder DR, Hanson AC, Buenvenida SL, Warner DO. Perioperative cardiac arrests in children between 1988 and 2005 at a tertiary referral center: a study of 92,881 patients. *Anesthesiology*. 2007 Feb; 106(2):226-37; quiz 413-4. PMID: 17264715
8. **Flick RP**, Gleich SJ, Hanson AC, Schroeder DR, Sprung J. Pediatric surgical extracorporeal membrane oxygenation - A case series. *Signa Vitae*. 2008; 3(2):18-23. PMID: 0
9. Sprung J, **Flick RP**, Gleich SJ, Weingarten TN. Perioperative cardiac arrests. *Signa Vitae*. 2008; 3(2):8-12. PMID: 0
10. **Flick RP**, Wilder RT, Pieper SF, van Koeverden K, Ellison KM, Marienau ME, Hanson AC, Schroeder DR, Sprung J. Risk factors for laryngospasm in children during general anesthesia. *Paediatr Anaesth*. 2008 Apr; 18(4):289-96. PMID: 18315633 DOI: 10.1111/j.1460-9592.2008.02447.x
11. **Flick RP**, Sprung J, Gleich SJ, Barnes RD, Warner DO, Dearani JA, Scott PD, Hanson AC, Schroeder DR, Schears GJ. Intraoperative extracorporeal membrane oxygenation and survival of pediatric patients undergoing repair of congenital heart disease. *Paediatr Anaesth*. 2008 Aug; 18(8):757-66. PMID: 18544147 DOI: 10.1111/j.1460-9592.2008.02632.x
12. Wilder RT, **Flick RP**, Sprung J, Katusic SK, Barbaresi WJ, Mickelson C, Gleich SJ, Schroeder DR, Weaver AL, Warner DO. Early exposure to anesthesia and learning disabilities in a population-based birth cohort. *Anesthesiology*. 2009 Apr; 110: (4)796-804. PMID: 19293700 PMCID: 2729550 DOI: 10.1097/01.anes.0000344728.34332.5d
13. Sprung J, **Flick RP**, Wilder RT, Katusic SK, Pike TL, Dingli M, Gleich SJ, Schroeder DR, Barbaresi WJ, Hanson AC, Warner DO. Anesthesia for cesarean delivery and learning disabilities in a population-based birth cohort. *Anesthesiology*. 2009 Aug; 111: (2)302-10. PMID: 19602960 PMCID: 3076711 DOI: 10.1097/ALN.0b013e3181adf481
14. \* Kenyon CA, **Flick R**, Moir C, Ackerman MJ, Pabelick CM. Anesthesia for videoscopic left cardiac sympathetic denervation in children with congenital long QT syndrome and catecholaminergic polymorphic ventricular tachycardia--a case series. *Paediatr Anaesth*. 2010 May; 20: (5)465-70. PMID: 20337957 PMCID: 3332532 DOI: 10.1111/j.1460-9592.2010.03293.x
15. \* Rabbitts JA, Groenewald CB, Moriarty JP, **Flick R**. Epidemiology of ambulatory anesthesia for children in the United States: 2006 and 1996. *Anesth Analg*. 2010 Oct; 111(4):1011-5. Epub 2010 Aug 27. PMID: 20802051 DOI: 10.1213/ANE.0b013e3181ee8479
16. Politis GD, Schneider WJ, Van Beek AL, Gosain A, Migliori MR, Gregory GA, Fisher QA, **Flick R**. Guidelines for pediatric perioperative care during short-term plastic reconstructive surgical projects in less developed nations. *Anesth Analg*. 2011 Jan; 112(1):183-90. PMID: 21173208 DOI: 10.1213/ANE.0b013e3181fdfab7

17. Ahmed KA, Dreher ME, King RF, **Flick R**, Marienau ME, Schears GJ, Orvidas LJ. Dexamethasone and postoperative bleeding risk after adenotonsillectomy in children. *Laryngoscope*. 2011 May; 121(5):1060-1. PMID: 21520125 DOI: 10.1002/lary.21554
18. Bojanic K, Kivela JE, Gurrieri C, Deutsch E, **Flick R**, Sprung J, Weingarten TN. Perioperative course and intraoperative temperatures in patients with osteogenesis imperfecta. *Eur J Anaesthesiol*. 2011 May; 28(5):370-5. PMID: 21423018 DOI: 10.1097/EJA.0b013e3283459616
19. **Flick RP**, Lee K, Hofer RE, Beinborn CW, Hambel EM, Klein MK, Gunn PW, Wilder RT, Katusic SK, Schroeder DR, Warner DO, Sprung J. Neuraxial labor analgesia for vaginal delivery and its effects on childhood learning disabilities. *Anesth Analg*. 2011 Jun; 112(6):1424-31. PMID: 20736436 PMCID: 3268365 DOI: 10.1213/ANE.0b013e3181f2ecdd
20. Schneider WJ, Politis GD, Gosain AK, Migliori MR, Cullington JR, Peterson EL, Corlew DS, Wexler AM, **Flick R**, Van Beek AL. Volunteers in plastic surgery guidelines for providing surgical care for children in the less developed world. *Plast Reconstr Surg*. 2011 Jun; 127(6):2477-86. PMID: 21311389 DOI: 10.1097/PRS.0b013e3182131d2a
21. Gurrieri C, Kivela JE, Bojanic K, Gavrilova RH, **Flick RP**, Sprung J, Weingarten TN. Anesthetic considerations in mitochondrial encephalomyopathy, lactic acidosis, and stroke-like episodes syndrome: a case series. *Can J Anaesth*. 2011 Aug; 58(8):751-63. Epub 2011 Jun 09. PMID: 21656321 DOI: 10.1007/s12630-011-9528-0
22. Schneider WJ, Migliori MR, Gosain AK, Gregory G, **Flick R**, Volunteers in Plastic Surgery Committee of the American Society of Plastic Surgeons, Plastic Surgery Foundation. Volunteers in plastic surgery guidelines for providing surgical care for children in the less developed world: part II. Ethical considerations. *Plast Reconstr Surg*. 2011 Sep; 128(3):216e-222e. PMID: 21865995 DOI: 10.1097/PRS.0b013e31822213b4
23. **Flick RP**, Katusic SK, Colligan RC, Wilder RT, Voigt RG, Olson MD, Sprung J, Weaver AL, Schroeder DR, Warner DO. Cognitive and behavioral outcomes after early exposure to anesthesia and surgery. *Pediatrics*. 2011 Nov; 128(5):e1053-61. PMID: 21969289 PMCID: 3307194 DOI: 10.1542/peds.2011-0351
24. Sprung J, **Flick RP**, Katusic SK, Colligan RC, Barbaresi WJ, Bojanic K, Welch TL, Olson MD, Hanson AC, Schroeder DR, Wilder RT, Warner DO. Attention-deficit/hyperactivity disorder after early exposure to procedures requiring general anesthesia. *Mayo Clin Proc*. 2012 Feb; 87(2):120-9. PMID: 22305025 PMCID: 3538403 DOI: 10.1016/j.mayocp.2011.11.008
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26. Gleich SJ, Olson MD, Sprung J, Weingarten TN, Schroeder DR, Warner DO, **Flick RP**. Perioperative outcomes of severely obese children undergoing tonsillectomy. *Paediatr Anaesth*. 2012 Dec; 22(12):1171-8. PMID: 22776351 PMCID: 3470734 DOI: 10.1111/j.1460-9592.2012.03905.x
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28. Rabbitts JA, Groenewald CB, Mauermann WJ, Barbara DW, Burkhart HM, Warnes CA, Oliver WC Jr, **Flick RP**. Outcomes of general anesthesia for noncardiac surgery in a series of patients with Fontan palliation. *Paediatr Anaesth*. 2013 Feb; 23(2):180-7. Epub 2012 Sep 23. PMID: 22998356 DOI: 10.1111/pan.12020
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35. Saxena P, **Flick R**, Greason KL. Sometimes an ounce of extracorporeal membrane oxygenation prevention is worth a pound of extracorporeal membrane oxygenation cure. *J Thorac Cardiovasc Surg*. 2014 Mar; 147 (3):1102-3. Epub 2013 Oct 27 PMID: 24172689 DOI: 10.1016/j.jtcvs.2013.08.084
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\* Indicates that the primary author was a mentee of this author.