

## CURRICULUM VITAE

**Bermans J. Iskandar**

### OFFICE ADDRESS

Department of Neurological Surgery  
University of Wisconsin School of Medicine and Public Health  
K4/832 Clinical Science Center  
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Madison, WI 53792-8660

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(608) 263-1728

### EDUCATION AND TRAINING

College: Sept. 1981 – June 1982  
American University of Beirut  
Biology

Sept. 1982 – June 1985  
California State Univ at Northridge  
*Summa cum laude* in Cell and Molecular Biology  
B.A.

Medical School: Sept. 1985 – June 1989  
U. of Pennsylvania School of Medicine  
M.D.

Surgery  
Internship: July 1989 - June 1990  
Department of General Surgery, Boston University Medical Center

Neurosurgery  
Residency: July 1990 - June 1996  
Duke University Medical Center, Division of Neurosurgery

Pediatric  
Neurosurgery  
Fellowship: July 1996 – June 1997  
Division of Pediatric Neurosurgery  
The Children's Hospital, Birmingham, AL

## ACADEMIC APPOINTMENTS

- 1/1993-1/1995      Research Associate  
Department of Neurobiology  
Duke University Medical Center  
Project title: Signaling Pathways in  
Central Nervous System Regeneration  
Mentor: J. H. Pate Skene, Ph.D.
- 7/1997-2/2003      Assistant Professor of Neurosurgery and Pediatrics  
Director of Pediatric Neurosurgery  
University of Wisconsin School of Medicine and Public Health  
Madison, WI
- 2003-2007          Associate Professor of Neurosurgery and Pediatrics  
Director of Pediatric Neurosurgery  
University of Wisconsin School of Medicine and Public Health  
Madison, WI
- 2007-2010          Associate Professor of Neurosurgery and Pediatrics, with Tenure  
Director of Pediatric Neurosurgery  
University of Wisconsin School of Medicine and Public Health  
Madison, WI
- 2009-present        Adjunct Professor  
Neuroscience Training Program  
University of Wisconsin-Madison  
Madison, WI
- 2010-present        Professor of Neurosurgery and Pediatrics, with Tenure  
Director of Pediatric Neurosurgery  
University of Wisconsin School of Medicine and Public Health  
Madison, WI

## HOSPITAL APPOINTMENTS

- 1997-                Staff surgeon, Meriter Hospital, Madison, WI
- 1997-                Staff surgeon, William S. Middleton Veteran's Administration  
Hospital, Madison, WI
- 1997-                Staff surgeon, St. Mary's Hospital, Madison, WI
- 1997-                Director, CNS Regeneration Laboratory, Department of  
Neurological Surgery, University of Wisconsin School of  
Medicine and Public Health

- 1999- Co-director, Multidisciplinary Brachial Plexus Clinic, American Family Children's Hospital, Madison, WI
- 1997- Attending Neurosurgeon and Director of Pediatric Neurosurgery, University of Wisconsin Hospital and Clinics
- 2006- Director of Pediatric Neurosurgery, American Family Children's Hospital

PROFESSIONAL SOCIETY MEMBERSHIPS

- 1987-1989 Foundation for the Encouragement of Education in Lebanon (FEEL)
- 1998- Society for Neuroscience
- 2000- Congress of Neurological Surgeons, member
- 2000- American Association of Neurological Surgeons, member.
- 2000- AANS/CNS Section of Pediatric Neurosurgery, member
- 2000-2002 American College of Surgeons Faculty Research Fellow
- 2001- American Board of Neurological Surgery
- 2001- American Board of Pediatric Neurosurgery
- 2003-2011 Fellow of the American College of Surgeons
- 2003- American Society of Pediatric Neurosurgeons
- 2004- World Association of Lebanese Neurosurgeons
- 2004- American Syringomyelia and Chiari Alliance Project
- 2007- American Academy of Neurological Surgeons
- 2008- Chiari and Syringomyelia Foundation

SERVICE ACTIVITIES

Departmental

- 2007-2013 Mentoring committee member: Karl Sillay (UW Department of Neurological Surgery)
- 2008-2012 Mentoring committee member: David Niemann (UW Department of Neurological Surgery)
- 2008-2012 Mentoring committee member: Mustafa Baskaya (UW Department of Neurological Surgery)
- 2008-2014 Mentoring committee chair: Joshua Medow (UW Department of Neurological Surgery)
- 2008-present Executive Committee, Department of Neurological Surgery
- 2009-2012 Co-Founder and committee member: The John Sandin Creativity and Research Award
- 2010-2012 Mentoring committee member: Rao Adibhatla (UW Department of Neurological Surgery)
- 2010-2015 Mentoring committee member: Amgad Hanna (UW Department of Neurological Surgery)
- 2011-present Mentoring committee chair: Nathaniel Brooks (UW Department of Neurological Surgery)

2012-2013 Member: Endovascular Neurosurgeon Search Committee, Department of Neurological Surgery

2012-2014 Member: Functional Neurosurgeon Search Committee, Department of Neurological Surgery

2012-present Member: Resident Candidate Selection Committee, Department of Neurological Surgery

2013-present Member: Department Clinical Competency Committee, Department of Neurological Surgery

2015-present Member: Pediatric Neurosurgery Search Committee, Department of Neurological Surgery

#### UWSMPH/Hospital

1999 UW Pediatric ICU staff recruitment Committee

1999-2000 UW WISCR-IT (Computerized Records) Development Committee

2000 UW Medical Board Nominating Committee

2000 UW Pediatric Plastic Surgeon Recruitment Committee

2001 UW Department of Orthopedics and Rehabilitation Chairman Search Committee

2001-present UW Pediatric Trauma Management Committee

2002 UW Web GX Evaluation Committee

2002-2004 UW Hospital Medical Board

2003-2005 American Family Children's Hospital Clinics Committee

2003-2005 American Family Children's Hospital Inpatient Units Committee

2003-2005 American Family Children's Hospital Surgical Services Committee

2003-2005 American Family Children's Hospital Diagnostic Pavilion Committee

2004 UW Search and Screen Committee for Ophthalmology Staff Position

2004-2005 Member: Chair of Pediatric Search Committee, UW School of Medicine and Public Health

2005-2008 UWMF Finance Committee

2006-present American Family Children's Hospital Clinical Practice Council member

2006-present American Family Children's Hospital Steering Committee member

2006-2008 Mentoring committee member: Mark Kiehn (UW Department of Plastic Surgery)

2007 Dana Foundation UW Internal Competition Committee member

2008 Dana Foundation UW Internal Competition Committee member

2008- UW Simulation Committee member

2009-2011 ICTR Graduate Student major advisor, University of Wisconsin-Madison

2010-present AFCH Surgeon's Advisory Committee, UW Hospital and Clinics

2010-2012 ITS Governance Committee, UW Hospital and Clinics

2011-present Mentoring committee member: Samuel Poore (UW Department of Surgery)

2011-present Pediatric Surgeons Staff Committee, UW Hospital and Clinics

2011-2012 Member: Chief of Pediatric Surgery Search Committee, UW School of Medicine and Public Health

2012-present Member: Clinical Systems Advisory Committee, UW Hospitals & Clinics

2012-present Mentoring committee member: Ahmed Afifi (Surgery)

- 2012-present Mentoring committee member: Yanjun Chen (Ophthalmology and Visual Sciences)
- 2012-present Member, Pediatric Trauma Management Committee
- 2012-present Chair, Wisconsin Hydrocephalus Project Team
- 2013-present Member: Chair of Ophthalmology and Visual Sciences Search Committee, UW School of Medical and Public Health
- 2013-present AFCH Surgical Site Infection Reduction Committee, American Family Children's Hospital
- 2013-present Surgical Clinical Ops Committee, American Family Children's Hospital
- 2014 Mentoring committee member: Lucy Zawadski (Neurology)
- 2014-present Mentoring committee member: Jesus Iruretagoyena (Maternal Fetal Medicine)
- 2014-present PhD thesis committee member: Kendra Braegelmann (Comparative Biomedical Sciences)
- 2014-2015 Member: Chair of Neurology Search Committee, UW School of Medicine and Public Health
- 2014-present Member: Tenure Track Promotions Committee, UW School of Medicine and Public Health
- 2014-present Traumatic Brain Injury Prevention Initiative Committee, UW School of Medicine and Public Health

National/International

- 1987-89 Foundation for the Encouragement of Education in Lebanon (FEEL), non profit organization. Founding member and co-chairman of the Boston chapter.
- 1988 Special Olympics of Philadelphia: Chairman, Ceremonies and Scheduling Committee
- 1990 National Board of Medical Examiners, diplomate
- 2003-2010 Think First Injury Prevention Program, Madison Chapter Sponsor
- 2004-2007 Think First Injury Prevention Program, Lebanon Chapter Sponsor
- 2004-2008 World Association of Lebanese Neurosurgeons, Chairman, Education Committee
- 2004-2006 American Syringomyelia Alliance Project, Research Committee Member
- 2004 World Association of Lebanese Neurosurgeons Meeting, Member, Scientific Program Committee
- 2005 Participation in "white paper" on NIH Hydrocephalus Consensus Conference
- 2005- Think First National Injury Prevention Program. Member of Efficacy Subcommittee
- 2006-2008 American Society of Pediatric Neurosurgeons (ASPN): Chairman of Credentialing Committee
- 2007- American Academy of Neurological Surgeons, Member
- 2007- Chiari Syringomyelia Foundation, Medical Advisory Board Executive Committee member
- 2008-2009 AANS/CNS Section on Pediatric Neurosurgery: Traveling Fellowship Committee Member
- 2008 ICTR grant reviewer

2008- Chiari and Syringomyelia Foundation: Medical Board Member  
2008- Chiari and Syringomyelia Foundation: Website Committee Chair  
2008- Chiari and Syringomyelia Foundation: Marcy Speer Endowment  
Committee Member  
2009-2012 AANS/CNS Section on Pediatric Neurosurgery, Traveling Fellowship  
Committee Chair  
2009-2011 American Society of Pediatric Neurosurgeons, Bylaws Committee Chair  
2010 American Board of Neurological Surgery, 10-year Recertification  
2010 AANS Resident Mentor Program, Mentor  
2010-2013 AANS/CNS Section on Pediatric Neurosurgery, Executive Council  
Member-at-Large  
2010 World Association of Lebanese Neurosurgeons, Scientific Program  
Committee  
2010- World Association of Lebanese Neurosurgeons, International Advisory  
Board Member  
2011 American Board of Pediatric Neurological Surgery, 10-year  
Recertification  
2011- Park Reeves Syringomyelia Registry, Advisory Board Member  
2013-2015 AANS/CNS Section on Pediatric Neurosurgery, National Meetings  
Committee co-Chair  
2013- Member, Board of Directors, American Board of Pediatric Neurosurgery  
2014- Member, Education Committee, Congress of Neurological Surgeons  
2015- Treasurer, AANS/CNS Joint Section of Pediatric Neurosurgery

#### EDITORIAL BOARDS

Practical Reviews in Neurosurgery (past Editorial Board Member)  
Pan Arab Journal of Neurosurgery (Editorial Board Member)  
The International Society of Pediatric Neurosurgeons (ISPN) Guide (Section Editor).

#### JOURNAL REVIEWER (AD HOC)

Pediatric Neurosurgery  
Practical Reviews in Neurosurgery  
Journal of Biological Chemistry  
J Neuropath Exp Neurol  
Journal of Genetic Counseling  
Child's Nervous System  
Pediatrics  
Annals of Neurology  
Clinical Neurology and Neurosurgery  
Clinical Anatomy  
Archives of PM&R  
The Scientific World

Neuropediatrics  
Journal of Nutritional Biology  
Stem Cells and Development  
American Journal of Clinical Nutrition  
Journal of Genetic Counseling  
Neurosurgery  
Journal of Surgical Research  
Birth Defects Research Part A: Clinical and Molecular Teratology

#### GRANT & ABSTRACT REVIEWER

Prince Salman Center for Disability Research, Grant Reviewer 2003  
AANS/CNS Pediatric Section Abstract Reviewer, 2004 and 2005  
CNS Pediatric Neurosurgery Abstract Reviewer, 2005  
Dana Foundation, UW Grant Reviewer 2007  
University of Wisconsin Institute for Clinical and Translational Research, Grant Reviewer – multiple years  
Brain Research Foundation, UW Grant Reviewer, 2012  
Dean of the American University of Beirut School of Medicine multi-investigator grants. December 2012  
Brain Research Foundation, UW Grant Reviewer, 2013  
AANS Abstract Reviewer, 2013  
ICTR Pilot Award Program, Grant Reviewer 2014

#### HONORS, AWARDS, PROFESSORSHIPS

|             |  |
|-------------|--|
| 1985        | Phi Kappa Phi Honor Society  |
| 1995        | Alpha Omega Alpha Medical Honor Society  |
| 2000        | Mentor, Mayfield award of the AANS/CNS Spine section (Ketan Bulsara)   |
| 2001        | Honorable Mention (Engineering Expo): Electrosurgical drill for endoscopic craniostomy   |
| 2002        | Mentor, University Book Store Academic Excellence Award (Aaron Nelson)   |
| 2002        | Mentor, Hydrocephalus Association Award (Joshua Medow)   |
| 2003        | Mentor, Shapiro Summer Research Award (Jason Sansone)  |
| 2003 & 2004 | Mentor, Kenneth Shulman Award (Joshua Medow)   |
| 2003-2005   | Howard Hughes Medical Investigator, UW Pilot Project   |
| 2004        | Burroughs Wellcome Fund (BWF) Clinical Scientist Awards in Translational Research (Winner of Univ of Wisconsin internal competition) |
| 2006        | Mentor, Pennsylvania Neurosurgical Society Resident Basic Research Award (Elias Rizk)  |
| 2006        | Federation of American Societies for Experimental Biology (FASEB), abstract chosen for oral presentation and \$500 award             |

- 2006 Mentor, Kenneth Schulman Award (Elias Rizk)
- 2006 Best Faculty Teaching Award, Department of Neurological Surgery
- 2007 Citation for Medical Student Teaching, Department of Neurological Surgery, University of Wisconsin School of Medicine and Public Health
- 2007 Mentor, Pennsylvania Neurosurgical Society Resident Clinical Research Award (Elias Rizk)
- 2008 Mentor, University of Wisconsin Hilldale Award (Krista Stewart)
- 2008 Citation for Medical Student Teaching, Department of Neurological Surgery, University of Wisconsin School of Medicine and Public Health
- 2008 Mentor, American Academy of Neurological Surgeons Resident Research (Elias Rizk)
- 2008 Mentor, Pediatric Neurosurgery Traveling Fellowship (Elias Rizk)
- 2009 Mentor, CNS/Codman Fellowship Award (Nirav Patel)
- 2010 Children Matter Award, American Family Children's Hospital
- 2010 Mentor, University of Wisconsin Hilldale Award (Tyler Wanke)
- 2010 Mentor, American Academy of Neurological Surgeons Neurosurgery Research and Education Foundation Fellowship (NREF) Award (Nirav Patel)
- 2010 Mentor, American Academy of Neurological Surgeons Medical Student Summer Research Fellowship (Krista Stewart)
- 2010 Mentor, Neurosurgery Research and Education Foundation Fellowship (NREF) award (Nirav Patel)
- 2011 Dean's Research Mentorship Award, University of Wisconsin School of Medicine and Public Health
- 2012 National Institutes of Health Director's Pioneer Award - Finalist
- 2012 Mentor, Shapiro Summer Research Award (Thomas Cassini)
- 2012 Shapiro Guest Lecturer - University of Wisconsin School of Medicine and Public Health
- 2012 Brain Research Foundation - University of Wisconsin internal competition winner
- 2012 Keynote Speaker. Conquer Chiari. Chicago, IL.
- 2014 Visiting Professor, Nemours/Alfred I. DuPont Hospital for Children, Philadelphia, PA
- 2014 Visiting Professor, Department of Neurology, Mayo Clinic, Jacksonville, FL
- 2015 Van Wagenen Lecturer, 2015 AANS Annual Scientific Meeting

## EDUCATIONAL ACTIVITIES

### Classroom

- 2003-2004 UW Neuroscience Course. Faculty. Topic: Hydrocephalus and ICP
- 2005-12 UW Neuroscience Course. Faculty. Topic: Neurological Localization
- 2011- Guest Lecturer, NTP 675 Course, UW Neuroscience Training Program



## Hospital

- 1997 Severe Head Injury Management in Children. PICU/Neurosurgery conference. Part I. The management of ICP. Organized by B. Iskandar and W. Perloff
- 1998 Severe Head Injury Management in Children. PICU/Neurosurgery conference. Part II. Non-ICP-related issues in pediatric head injury. Organized by B. Iskandar

## Regional

- 1998 Current Treatments and Innovations in Spina Bifida. Regional conference for patients with Spina Bifida and their families. Organized by B. Iskandar and B. Ohm
- 2000 Caring for Children with Brain Tumors. Regional conference co-director
- 2005 Caring for Children with Brain Tumors. Regional conference co-director.
- 2010 Current Treatments and Innovations in Spina Bifida. Regional conference for patients with Spina Bifida and their families. Conference Director

## National

- 1997 Issues in complex pediatric spine. The tethered spinal cord. Luncheon seminar. Congress of Neurological Surgeons (Invited Faculty).
- 1999 Neuroscope'99. Medtronic PS Medical Neuroendoscopy Workshop. New Orleans (Invited Faculty).
- 1999 First Annual Spine Symposium. American University of Beirut (Invited Faculty).
- 2001 Surgery of Brain Tumors in Children. Middle East Medical Assembly. Beirut (Invited Faculty)
- 2002 Intracranial Endoscopy. Congress of Neurological Surgeons (Invited Faculty)
- 2002 Hydrodynamics Conference. Pittsburgh, September (Invited Faculty)
- 2003 Head Injury Breakfast Seminar. American Association of Neurological Surgeons (Invited Faculty)
- 2003 Session Moderator (Hydrocephalus). AANS/CNS Section on Pediatric Neurological Surgery
- 2004 Chiari I Breakfast Seminar. American Association of Neurological Surgeons (Invited Faculty)
- 2004 Breakfast Seminar Panelist. AANS
- 2005 Breakfast Seminar Panelist. AANS
- 2005 Hydrocephalus Consensus Conference (Session Moderator). Bethesda.
- 2005 AANS/CNS Section on Pediatric Neurological Surgery (Session Moderator)

- 2005 Chiari Malformations Breakfast Seminar. American Association of Neurological Surgeons (Invited Faculty)
- 2005 Pediatric Neurosurgery Meet the Experts Breakfast Seminar. American Association of Neurological Surgeons (Invited Faculty)
- 2006 Chiari Malformations Breakfast Seminar. American Association of Neurological Surgeons (Invited Faculty)
- 2006 Pediatric Neurosurgery Meet the Experts Breakfast Seminar. American Association of Neurological Surgeons (Invited Faculty)
- 2006 WALN Conference (session moderator). Beirut, Lebanon
- 2006 Breakfast Seminar Panelist. AANS
- 2007 AANS Breakfast Seminar panelist: Chiari Malformations
- 2008 AANS Breakfast Seminar moderator: Chiari Malformations
- 2009 AANS Breakfast Seminar panelist: Chiari Malformations
- 2009 AANS Breakfast Seminar panelist: Pediatric Hydrocephalus
- 2009 American Syringomyelia and Chiari Alliance Project (ASAP) Annual Meeting, Local Host.
- 2011 AANS/CNS Section on Pediatric Neurological Surgery, Scientific Session Moderator
- 2013-2015 co-Organizer and Moderator: Pediatric Sessions of the AANS and CNS

Mentoring

- 1998 Christine Schwab: Medical Scholars Program
- 1999 Rebecca Allen: NASA/Sharp Program
- 1999 Agahan Unlu, MD: Postdoctorate Trainee
- 2000 Gregory Griepentrog: Medical Scholars Program
- 2000 Chenara Johnson: NASA/Sharp Program
- 2001 Michael Hendrickson: Medical Scholars Program
- 2001 Jessica Renee Mendellin: NASA/Sharp Program
- 2001-02 Peng Gao, MD: Research Scientist
- 2001-02 Aaron Nelson: UW Undergraduate Thesis
- 2001-02 Julie Pawasarat: UW Directed Study of Research
- 2002 Michael Murphy: Medical Scholars Program
- 2003 Aaron Struck: Medical Scholars Program
- 2002-03 Frances Delgado: UW Undergraduate Thesis
- 2002-03 Brenton Meier: UW Undergraduate Research and UW Med Student Research 2006-7
- 2004-2012 Elias Rizk: Research Scientist
- 2004 Abigail Poyer: NASA/Sharp Program
- 2004 Kate Holoyda: Medical Scholars Program
- 2005 Abigail Rao. Medical Scholars Program
- 2005 Aaron Struck, Shapiro award
- 2005 Kathleen Simon: UW Independent Study Course
- 2005 James Davies: UW Independent Study Course
- 2006 Prethy Rao: UW Independent Study Course

2006 Andrew Jacus: UW Independent Study Course  
 2006 Park Byoung-Gyu: UW Independent Study Course  
 2007 Sadhana Murali: UW Directed study course  
 2007-08 Sharad Rajpal, UW Neurosurgery Resident  
 2007-08 Thesis committee member (Chicago): Bryn Martin  
 2007-08 Thesis committee member (UW): Ramya Sundaresan  
 2007-09 Krista Stewart: UW Independent Study Course  
 2008, 2012 Sarah Bassiouni: UW Independent Study Course  
 2008 Roman Ayele Aydiko: UW Independent Study Course  
 2008 Mina Zamanian: UW Independent Study Course  
 2008-09 Logan Gorges: UW Independent Study Course  
 2008-11 Nirav Patel, UW Neurosurgery Resident  
 2008-13 Andrew Bauer, UW Neurosurgery Resident  
 2010-13 Krista Stewart: AANS Medical Student Summer Research Award  
 2010 Dominic Schomberg, UW Independent Study Course  
 2010-11 Isabel Cupino, Undergraduate Research Mentor  
 2010-11 Will Freking, Undergraduate Research Mentor  
 2010-11 Heidi Johng, Undergraduate Research Mentor  
 2010-14 Michael Mendoza, Undergraduate Research Mentor  
 2010-11 Joy Pehler, Undergraduate Research Mentor  
 2010-11 Ruhee Singh, Undergraduate Research Mentor  
 2010-12 Pascale Stiles, Undergraduate Research Mentor  
 2010-13 Brent Tuescher, Undergraduate Research Mentor  
 2010-12 Lisa Wrazidlo, Undergraduate Research Mentor  
 2010-13 Clara Ye, Undergraduate Research Mentor  
 2010 Crystal Han, Undergraduate Research Mentor  
 2010-11 Thomas Kuehn, Undergraduate Research Mentor  
  
 2010-12 Connie Wu, Undergraduate Research Mentor  
 2010-12 Tyler Wanke, UW Independent Study Course  
 2010-13 Anaita Chindhy, UW Independent Study Course  
 2010-13 Lynsey Lauderdale, Undergraduate Research Mentor  
 2011 Lama Ghazi: Research mentor for international medical student  
 2011 Adam Milch, Undergraduate Research Mentor  
 2011-13 Brenna Tomczak, Undergraduate Research Mentor  
 2011-14 Emily Skarda, Undergraduate Research Mentor  
 2011-present Joslyn Strebe, Undergraduate Research Mentor  
 2011-13 Somya Adibhatla, Undergraduate Research Mentor  
 2011-15 Will Gibb, Undergraduate Research Mentor  
 2011-13 Sarah Chrabaszcz, Undergraduate Research Mentor (Indiana)  
 2011-present Candace Bishop (Summer Science Institute national program for high schools) and sophmore/Bio 152  
 2011 Daniel Rodriguez (Summer Science Institute national program for high schools)  
 2011-12 Rita Figueiredo, MD: Visiting Fellow

2011-12 Feda Makkiyah, MD: AANS/CNS International Traveling Fellow  
 2011-12 Elie Ramly, Research mentor for international medical student  
 2011-12 Caner Saygin, Research mentor for international medical student  
 2011-12 Adrianna Jackson (UW SMPH – Spelman College Summer Research Program)  
 2011-13 Krista Stewart: UW Med Student Research mentor  
 2011-13 Kara Weber: UW Independent Study Course, 2011-2013  
 2011-12 Logan Gorges: Shapiro Award, Summer 2012 & UW Medical student research mentor  
 2011-15 Thomas Cassini: UW Med Student Research Mentor and Shapiro award, Summer 2012  
 2011-13 Rewais Hanna, Research and Clinical mentor for undergraduate student  
 2011-13 Emily Hartmann, MD, UW Department of Plastic Surgery, Research resident faculty mentor  
 2011-13 Eliaz Rizk, MD, Clinical and Research external resident faculty mentor  
 2011-12 Tong Yang, MD, AANS Neurosurgery Resident Mentorship Program  
 2011-14 Lucas Skoda, Undergraduate Research Mentor  
 2012 Rita Figueiredo, Clinical and research mentor for international visiting physician scientist  
 2012 Kevin Thomas, Summer research mentor for high school student  
 2012 Nicholas Khattar, Clinical and research mentor for international visiting medical student  
 2012 Abby Schuh, Clinical mentor for undergraduate student  
 2012 Alex Jedrzejczak, Research mentor for high school student  
 2012 Olga Grzelczak, Research mentor for visiting high school student,  
 2012 Peter Oakes, Undergraduate Clinical and Research Mentor (Alabama)  
 2012 Rajesh Nair, MD, Honorary Clinical Fellow  
 2012-13 Sheyann Kirby, Student Observer  
 2012-2013 James Holden, Undergraduate Research Mentor  
 2012-2014 Angela Andrea Navarrete Opazo, PhD thesis committee (Neuroscience)  
 2013-2014 Marco Dela Cruz, Clinical observer, visiting undergraduate student  
 2013 Meliha Gundag Papaker, Research and Clinical mentor for international visiting fellow  
 2013 Leah Resnick, Research mentor for visiting undergraduate student  
 2013 Julie Cornwell, Clinical and research mentor for undergraduate student  
 2013 Maria Abou Nader, Research and Clinical mentor for international medical student  
 2013 Mathilde Guibourd, Research and Clinical mentor for international visiting medical student  
 2013-14 Charlie Ward, Research and Clinical mentor for undergraduate student,  
 2013 Megan Dietze, Shapiro Award  
 2013 Mark Kraemer, Shapiro Award  
 2013 Dan Lunetta, Research and Clinical mentor for undergratudate student  
 2013 Veronica Zalesak, Clinical mentor for undergraduate student  
 2013 Laurel Ohm, Research mentor

2013 Badih Dauo, Research and Clinical mentor for international visitng student  
 2013 Mark Letaif, Research mentor for high school student  
 2013 Mia Shehadi, Clinical and research mentor for high school student  
 2013 Lily Shehadi, Clinical and research mentor for high school student  
 2013 Genna Bonfilgio, Research mentor  
 2013 Jake Poepping, Research mentor  
 2013 Kristen Wells, Research mentor  
 2013-15 Cedric Holden, Research mentor  
 2013-14 Paige Schrempp, Research mentor  
 2013-14 Demetrios Geanon, Research mentor  
 2013-14 Hannah Frank, Research mentor  
 2013-present Susan Luo, Research mentor  
 2014-present Gregory Keating, Research mentor  
 2014 Brenna Tomczak, Clinical mentor for undergraduate student  
 2014 Saeed Ansari, Research and Clinical mentor for honorary fellow  
 2014 Emily Miao, Research mentor for visiting graduate student  
 2014 Clifford Chao, Research mentor for visiting undergraduate student  
 2014-present Kevin Thomas, Research mentor for high school student  
 2014-present Alex Thomas, Research mentor for high school student  
 2014 Daniel Geanon, Clinic Observer  
 2014-present Bradley Carlson  
 2014 Maria Olari, Research mentor  
 2014 William Pennant, Research and Clinical mentor for sub-intern  
 2014 James Lehman, Clinical mentor for UW medical student  
 2014 Walter Duarte, Research and Clinical mentor for international visiting fellow  
 2014-present Kaitlyn Hopfensperger, Research mentor  
 2014-15 Angelito Tenorio, Research mentor  
 2014-present Alex Jedrzejczak, Research mentor  
 2014-present Evan Maltz, Research mentor  
 2014-present Charles Withington, Research mentor

## FACULTY PRESENTATIONS

### *Local and Regional*

1. Head Injury. PICU nurses. September 1997
2. Shunts. O.R. nurses. November 1997
3. Current trends in pediatric brain tumor management. Neurosurgery Grand Rounds. Teleconference with the Gunderson Clinic in LaCrosse, WI. November 1997.
4. Hydrocephalus today. Pediatrics Grand Rounds. UW. August 1997
5. Central nervous system regeneration. Neurosurgery research conference. September 1997.

6. Spina bifida occulta. Perinatal Conference. Meriter Hospital/Park. September 1997.
7. Management of pediatric head and spine injury. "Update in Pediatrics" annual conference. Wausau. October 1997.
8. Occult Spinal Dysraphism and the Tethered Spinal Cord. Family practice conference. Beaver Dam. October 1997.
9. Management of severe head injury: Conclusions and future directions. Neurosurgery/PICU Head Injury Conference. UW. November 1997.
10. Current Management of Hydrocephalus. Pediatric conference. Dubuque. January 1998.
11. What's special about the critical care of the head-injured child. Pediatric Head Injury Management Conference. Part II. UW Hospital. February 1998.
12. The clinical and molecular characteristics of pediatric brain tumors. UW CME series. Rockford, IL. March 1998.
13. The Neurological Assessment. Pediatric Basic Critical Care Course. UW Children's Hospital. March 1998.
14. Surgery of the brachial plexus, with emphasis on obstetric palsies. Neurology Grand Rounds, UW. May 1998.
15. The Chiari Malformations. "Progress in Pediatrics" annual conference, Madison, WI. May 1998.
16. Neurological assessment of the pediatric patient. UW Children's Hospital Basic Critical Care Course. March 1998.
17. Shunts and shunt problems. Weekly pediatric resident conference. UW. April 1998.
18. Pediatric Head Trauma Management. Dubuque, Iowa. June 1998.
19. Hydrocephalus. Department of Rehabilitation conference. June 1998.
20. Craniosynostosis. Pediatric Grand Rounds. UW. July 1998.
21. Obstetric Plexus palsies. Pediatric department. Greenbay. July 1998.
22. Craniosynostosis. Neurosurgery/Neurology Grand Rounds. AUB. August 1998.
23. Craniosynostosis. Updates in Pediatrics. Appleton. October 1998.
24. Shunts and Intracranial Pressure problems. Medical student pilot neuroscience course. October and December 1998.
25. Hydrocephalus today: CME Wisconsin Radio Teleconference. November 1998.
26. Current Trends in Myelomeningocele Treatment. Neonatology Grand rounds. Meriter Hospital. January 1999.
27. Spina Bifida Management. Urology Grand Rounds. UW. February 1999.
28. Chiari Malformations and the Tethered Spinal Cord. UW OR nursing conference. May 1999.
29. Management of Shunts and Shunt Infections. Pediatric Residents Conference, UW, May 1999.
30. Current Trends in the Management of Pediatric Head Injury. Pediatric Trauma/Management Conference. Kids First with Dr. C. Everett Koop. Greenbay. May 1999.
31. New Trends in Pediatric Neurosurgery. Anesthesia Grand Rounds. June 1999.
32. Craniosynostosis. WI State Society of Neurosurgery, June 1999.

33. Management of Brachial Plexus Lesions. Neurosurgery residents conference. July 1999.
34. Upper Cervical Spine Fractures. First Annual Spine Symposium. AUB, June 1999.
35. Pediatric Spine Trauma. First Annual Spine Symposium. AUB, June 1999.
36. CNS Regeneration: Genetics vs. Environment. Neurosurgery Grand Rounds/Research Conference, August 1999.
37. Pediatric Head Injury. Fond-du-Lac Pediatrics Conference, September 1999.
38. Spina Bifida: Nature vs. Nurture. UW Pediatric Grand Rounds. August 1999.
39. Obstetric Plexus Palsies. Perinatology/Neonatology Conference. January 2000.
40. Management of the Shunted Patient. Pediatric Residents Conference. February 2000.
41. PDS Course. January 24 and January 31, 2000.
42. Caring for Children with Spina Bifida. Surgical Care of Infants and Children: an update. Monona Terrace, Madison, WI, March 2000.
43. Pediatric Head and Spine Trauma. Pediatric Critical Care course, UW, Madison. May 2000.
44. The Role of Surgery in Pediatric Brain Tumor Management. Caring for Children with Brain Tumors conference. September 2000.
45. Modern Epilepsy Surgery. Pediatric Grand Rounds. August 2000.
46. Managing Neonates with Spina Bifida. Meriter Neonatology Conference. September 2000.
47. Syringomyelia: I don't get it. Neurosurgery Grand Rounds. November 2000.
48. Epilepsy. Fond-Du-Lac Community meeting. November 2000.
49. Neonatal hemorrhage. Meriter Neonatology/Perinatology Conference, January 2001.
50. Hydrocephalus and shunts. UW Department of Rehabilitation Resident Conference. February 15, 2001.
51. Neuroanatomy for medical students. UW medical student talk, March 2001.
52. Brain embryology, Part II. UW Neurosurgery Residents' Conference, March 2001.
53. Pediatric neurosurgical critical care. UW pediatric critical care course. April 2001
54. Brain embryology, Part I. UW Neurosurgery Residents' Conference, January 2001.
55. Intracranial Pressure and Hydrocephalus. UW Neuroscience Pilot Course. May 2001.
56. The Role of Folic Acid in CNS Regeneration. UW Neurosurgery Grand Rounds, May 2001.
57. YEPSA Medical Student Examinations. June 2001.
58. The Management of Encephaloceles and Chiari Malformations, UW Neonatology/Perinatology conference, June 2001.
59. Surgery of the Brachial Plexus. UW Plastic Surgery Grand Rounds, June 2001.
60. Cranial Shape Abnormalities. Pediatric Grand Rounds. Dubuque, Sept 2001.
61. Hydrocephalus. UW Pediatric Residents Conference. December 2001.

62. Hydrocephalus. Pediatric Residents Conference December 2001
63. Brachial Plexus Surgery. Mercy Medical Grand Rounds. Oshkosh WI, February 2002.
64. Research in Clinical Practice. UW Neuroscience Society. UW, February 2002.
65. Cranial Shape Anomalies. Surgical Care of Infants and Children:2002. Fluno Center, Madison WI, February 2002.
66. Embryology of the Brain and Brain Malformations. UW Neurosurgery Resident Conference, February 2002.
67. Embryology of the Brain and Brain Malformations. UW Neurosurgery Resident Conference, April 2002.
68. Embryology of the Spine and Spinal Malformations. UW Neurosurgery Residents Conference, June 2002.
69. Hydrocephalus. UW Medical Student Neuroscience Course. August 2002.
70. Neurological Problems in Critical Care Nursing. Critical Care Nursing (Regional) Conference. Madison WI, September 2002.
71. Hydrocephalus. Pediatric Residents Conference, November 2002.
72. Hydrocephalus. UW Medical Student Neuroscience Course. November 2002.
73. Brain Embryology. Neurosurgery Residents Conference. January 2003.
74. Hydrocephalus. UW Medical Student Neuroscience Course. February 2003.
75. Pediatric Head Trauma Management. UW Trauma Conference. March 2003.
76. Care of the Pediatric Neurosurgical Patient. Pediatric Intensive Care Conference. UW, April 2003.
77. Hydrocephalus. UW Medical Student Neuroscience Course. April 2003.
78. Brainstem Anatomy. UW Medical Student Neuroanatomy Course. April 2003.
79. Flat Heads: When to Worry, What to Do. AAP Regional conference. April 2003.
80. Spine Embryology. Neurosurgery Residents Conference. May 2003.
81. Hydrocephalus. UW Medical Student Neuroscience Course. May 2003.
82. Surgery for Brachial Plexus Injuries. UW Plastic Surgery Grand Rounds. June 2003.
83. Hydrocephalus. UW Medical Student Neuroscience Course. July 2003 to June 2004.
84. Folic Acid in CNS Repair. SCIRP meeting. UW School of Veterinary Medicine. August 2003.
85. Hydrocephalus. Pediatric Resident Conference. October 2003.
86. Lumps, Bumps, and Holes: Windows to the Spine. Pediatric Grand Rounds. November 2003.
87. The Folate Pathway in CNS Repair. SCIRP meeting. UW School of Veterinary Medicine. February 2004.
88. Cranial Shape Anomalies. UW Pediatric Residents Conference. March 2004.
89. Pediatric Head Injury. Pediatric Critical Care Conference. March 2004.
90. Congenital Hydrocephalus. Neonatology/Perinatology Conference. Meriter Hospital. March 2004.
91. Surgery for Hydrocephalus. UW Anesthesia Grand Rounds. March 2004.
92. Spina Bifida. Spina Bifida Family Network. May 2004.
93. Hydrocephalus. UW OR Nurses. May 2004.



94. Brachial Plexus Surgery. Plastic Surgery Grand Rounds. June 2004.
95. Neuroanatomy of the Brainstem. Pediatric Resident Conference. August 2004.
96. Spina Bifida Occulta. Dean Pediatrics Conference. September 2004.
97. Shunt Management. Learning Science Center talk series. October 2004.
98. Spinal Anomalies. Seminars in Pediatrics. Madison. October 2004.
99. Hydrocephalus. UW Neurosurgery Grand Rounds. January 2005.
100. Neuroembryology. UW Pediatric Resident Conference. July 2005.
101. Surgery for Pediatric Brain Tumors. Caring for Children with Brain Tumors regional conference. Sept. 2005.
102. Spina Bifida Occulta. UW regional pediatric conference. St. Elizabeth Hospital, Appleton, WI. October 2005.
103. Shunt Issues with Pseudotumor cerebri. Department of Ophthalmology Grand Rounds. January 2006.
104. Pediatric Neurosurgery in Uganda. UW Neurosurgery Grand Rounds. May 2006.
105. UW Pediatric Residents Conference. May 2006.
106. The Sodium Potassium ATPase Pump in CNS Regeneration. UW Neurosurgery Research Seminar. September 2006.
107. CNS Regeneration: An Update. Dr. Vemuganti's Neuroscience Course. UW Madison. December 2006.
108. More on the Folate Pathway and CNS Repair. UW Neurosurgery Grand Rounds. September 2007.
109. The Folate Pathway and CNS Repair. UW Neurology Grand Rounds. September 2007.
110. Review in CNS Regeneration & Article Review. Neuroscience NTP 675 UW Course. October 2007.
111. The Role of the Folate Pathway in CNS Regeneration and Repair. Neurosurgery Research Day. October 2007.
112. Cervical Spinal Cord Injury in Neonates. UW Perinatology Conference. October 2007.
113. Hydrocephalus: Care Perspectives. Appleton Perinatology Conference. November 2007.
114. Lumps Bumps and Holes: Window to the Spine. Appleton Perinatology Conference. November 2007.
115. Pediatric Neurosurgery: The Specialty. AFCH. November 2007.
116. Brachial Plexus Surgery. UW Plastic Surgery Grand Rounds. August 2008.
117. Going Beyond Survival: How we Improve Quality of Life in Children and Adults with Spina Bifida. UW Pediatric Grand Rounds. August 2009.
118. Brachial Plexus Injuries. UW Plastic Surgery Grand Rounds. August 2009.
119. The Key Neurosurgical Problems in Spina Bifida: Hydrocephalus and Shunts. Current Treatments and Innovations in Spina Bifida. October 2010. Madison, WI.
120. General Prevention and Treatment of Spina Bifida: Clinical and Basic Science Research. October 2010. Madison, WI.
121. Going Beyond Survival: Improving Quality of Life in Spina Bifida. UW School of Nursing. June 2011. Madison, WI

122. Pediatric Brain Tumors. UW Neurology Resident's Conference. September 2011. Madison, WI.
123. Folate-Mediated Repair of the Central Nervous System through Epigenetic Pathways. Neuroscience Training Program Undergraduate Neurobiology Seminar course (Neuro 500) . UW Madison, September 2011.
124. Intracranial Neuroendoscopy. UW Neuroanatomy Skull base and Neuroendoscopy Course. October 2011. Madison, WI.
125. Epigenetic pathways modulate repair of the injured CNS: The biphasic curve. UW Neurosurgery Research Day. Madison, December 2011.
126. Research in Medicine. 2012 Shapiro Guest Lecture. Madison, January 2012.
127. Folate-Mediated Repair of the CNS through the Folate Pathway. Seminar in Nutritional Sciences. UW Madison. February 2012.
128. Hydrocephalus and VP shunts and nursing considerations. UW Neurosurgery Nursing. April 2012. Madison, WI.
129. Review of CNS Regeneration. UW NTP 675 course. Madison, April. 2012.
130. Hydrocephalus and VP shunts and nursing considerations. UW Neurosurgery Nursing. Madison, April 2012.
131. Disclosure of unanticipated outcomes. UW-SMPH Core Day Skills Lecture. Madison, May 2012.
132. Folate-mediated repair of the CNS through epigenetic pathways. Seminar in Nutritional Sciences. Madison, WI. September 2012.
133. Pediatric Brain Tumors. UW Neurology Resident's Conference. Madison, WI. October 2012.
134. Folate, Epigenetics, and CNS Repair. UW Neurosurgery Grand Rounds. Madison, WI. October 2012.
135. Folate, Epigenetics, and Central Nervous System Repair. Seminar in Neuromotor Control. UW Veterinary School. Madison, December 2012.
136. Brachial Plexus Surgery. UW Plastic Surgery Grand Rounds. Madison, March 2013.
137. Review of Modern Hydrocephalus and Shunt Care. Hamilton Middle School. Madison, March 2013.
138. Pediatric and Neonatal Brain Tumors. Perinatology Conference. Meriter Hospital. Madison, April 2013.
139. Folate, Epigenetics, and CNS Repair. First Annual UWSMPH Functional Recovery Symposium. Madison, April 2013.
140. Brachial Plexus Injury in Infants. Peripheral Nerve Symposium. UW Department of Neurological Surgery. October 2013.
141. Intracranial pressure monitoring. NICU Nurses Conference, January 2014.
142. Surgery for brachial plexus palsy. UW Neuroradiology Fellows Conference, May 2014.
143. Chiari I: Syndrome or malformation. UW Neuroscience Radiology Conference. May 2014.
144. Modern treatment of hydrocephalus. Pediatric Nurses Conference, June 2014.
145. Spina Bifida/Tethered Cord pathophysiology, diagnosis, and treatment. Urology Grand Rounds, October 2014.

*National*

1. Issues in complex pediatric spine. The tethered spinal cord. Luncheon seminar. Congress of Neurological Surgeons, October 1997
2. The Chiari Zero malformation. Pediatric Section of the AANS, December 5, 1997
3. Split Cord Malformations in Myelomeningocele Patients. Pediatric Section of the AANS, December 5, 1997
4. Spina Bifida in Modern Times: Nature vs. Nurture. Educational Teleconference Network, March 2000.
5. Closing Large Myelomeningoceles. Congress of Neurological Surgeons Luncheon Seminar. Faculty Speaker. September 2000
6. Spinal cord pulsations as a determinant of pathological pressure within a syrinx. AANS/CNS Pediatric Section, December 2000
7. Folic acid supplementation enhances CNS regeneration. AANS. Toronto, April 2001
8. Idiopathic Sryingomyelia. Congress of Neurological Surgeons. San Diego, October 2001
9. Folic Acid in CNS Regeneration. AANS/CNS Joint Section of Pediatric Neurosurgery. December 2001
10. Cranial Shape Problems and Positional Molding: WAPNAP. October 2001
11. Endoscopic Resection of Colloid Cysts. Congress of Neurological Surgeons. Philadelphia PA, September 2002
12. CSF Flow Studies in Patients with Chiari I Malformation. Hydrodynamics Conference. Pittsburgh, September 2002
13. Folate antagonists in CNS Regeneration. American College of Surgeons. San Francisco CA October 2002
14. Folic acid enhances repair mechanisms in the CNS. American Academy of Neurological Surgeons. Phoenix AZ, October 2002
15. CSF flow dynamics in the foramen magnum of children with Chiari I malformations ASAP. New York City, July 2003
16. Diagnostic Pitfalls in Hydrocephalus. Weekend Course on Hydrocephalus (Invited Faculty). Congress of Neurological Surgeons. Denver, October 2003
17. Session Moderator (Hydrocephalus). AANS/CNS section on pediatric neurological surgery. December 2003
18. Chiari Flow Studies. American Society of Pediatric Neurosurgeons. Costa Rica. February 2004
19. Chiari I Malformation. AANS Breakfast Seminar. May 2004
20. Folic acid in CNS Repair. Neuroscience. July 2004
21. The Sodium Potassium ATPase Pump is essential in CNS regeneration (AANS/CNS Section on Pediatric Neurosurgery, Orlando 2005)
22. The role of DNA methylation in CNS regeneration (Neural Tube Defects meeting 2005)

23. The role of DNA methylation in CNS regeneration. American Academy of Neurological Surgeons, San Francisco 2005.
24. Session Moderator. NIH Hydrocephalus consensus conference. Fall 2005
25. Pediatric Neurosurgical Cases. AANS Breakfast Seminar: Meet the Experts. AANS. San Francisco. April 2006
26. Chiari I: Syndrome or Malformation. AANS Breakfast Seminar: The Chiari Malformation. AANS. San Francisco. April 2006
27. American Syringomyelia Alliance Project research web-based presentation. May 2006
28. The Folate Pathway, DNA Methylation, and CNS Repair. FASEB. Palm Springs. August 2006
29. Non-quantitative CSF flow imaging in Chiari I malformation. American Syringomyelia Alliance Project. Denver. July 2006
30. Multi-Center Chiari Trial Update. American Syringomyelia Alliance Project. Seattle. July 2007
31. Understanding the Folate Pathway in CNS Repair. American Academy of Neurological Surgery. Las Vegas. October 2007
32. The methyltransferases in CNS Regeneration after Injury. AANS/CNS Pediatric Section. Miami. December 2007
33. Nitrous Oxide Inhibits Neuronal Elongation in Culture. AANS/CNS Pediatric Section. Miami. December 2007
34. The Association of Faint Midline Lumbar Cutaneous Hemangioma with Occult Spinal Dysraphism. AANS/CNS Pediatric Section. Miami. December 2007
35. The Chiari Malformations: Diagnosis and Controversies. AANS Breakfast Seminar (panelist). Chicago. April 2008
36. Folate and the CNS. Society of Neurological Surgeons. Madison. May 2008
37. Invited Speaker: American Syringomyelia Alliance Project: Phone Seminar. October 2008.
38. Chiari Malformations. AANS/CNS Breakfast Seminar. San Diego. May 2009.
39. Hydrocephalus. AANS/CNS Breakfast Seminar. San Diego. May 2009.
40. Syringomyelia: Definitions, Concepts and Treatment. ASAP Annual Meeting, Madison, WI. July 2009.
41. The Role of Folate Pathway in Repair of the Injured Central Nervous System. Neural Tube Defects Annual Meeting, Burlington, VT. September 2009.
42. Surgical Management of Chiari and Syringomyelia. CNS Annual Meeting. New Orleans. LA. October 2009.
43. Folic Acid Supplementation Enhances CNS Regeneration in Vitro. The American Academy of Neurological Surgery. Palm Beach. FL. October 2009.
44. Epigenetic regulation of CNS regeneration and repair. Duke University. Durham. NC. November 2009.
45. Supplementing methyl donor groups in the rat diet increases neural regeneration after spinal cord injury. AANS/CNS Section on Pediatric Neurological Surgery. Boston. MA. December 2009.

46. Trends in Surgical Management of Chiari I/Syringomyelia in North America. AANS/CNS Section on Pediatric Neurological Surgery. Boston, MA. December 2009.
47. Evaluation of the Child with a CSF Shunt. AANS Annual Meeting. Philadelphia, PA. May 2010.
48. Chiari Malformations and Syringomyelia: Basic Definitions and Concepts. American Syringomyelia and Chiari Alliance Project Annual Meeting. Austin, TX. July 2010.
49. ASAP Sponsored Research: Outcomes and Study Update. American Syringomyelia and Chiari Alliance Project Annual Meeting. Austin, TX. July 2010.
50. Occult Spinal Dysraphism and the Tethered Cord Syndrome. American Syringomyelia and Chiari Alliance Project Annual Meeting. Austin, TX. July 2010.
51. Folate Supplementation. FASEB Summer Research Conference: Folic Acid, Vitamin B12, and One Carbon Metabolism, Carefree Resort, Carefree, Arizona, August 2010.
52. Chiari Controversies. Conquer Chiari Research Conference (moderator). Chicago, November 2010.
53. Congenital Scientific Session. AANS/CNS Section on Pediatric Neurosurgery Annual Meeting (moderator). Cleveland, OH. November-December 2010.
54. Pediatric Neurosurgery Board Review. AANS/CNS Webinar, April 2011.
55. Participant, CSF Think Tank Meeting, Denver, CO, April 2011.
56. Participant, Syringomyelia Research Consortium Investigator Meeting, Dallas, TX, April 2011.
57. Folate Mediated Repair of the Central Nervous System through Epigenic Pathways. Trauma and Neurocritical Care Symposium, West Palm Beach, FL, May 2011.
58. Controversial Topics 2: Choice of Treatment for Syringomyelia Associated with Chiari I Malformation and Enlarged Central Canal. American Syringomyelia and Chiari Alliance Project Annual Meeting, Denver, CO, July 2011.
59. Outcomes in Patients Undergoing Surgical Intervention for Chiari Type 1 Malformation with Syringomyelia. American Syringomyelia and Chiari Alliance Project Annual Meeting, Denver, CO, July 2011.
60. Epigenetic Pathways Modulate Repair of the injured Central Nervous System. American Academy of Neurological Surgeons Annual Meeting. Scottsdale, October 2011
61. The Chiari Malformations in Humans. American College of Veterinary Internal Medicine (ACVIM) 2012 Forum, New Orleans, LA, June 2012.
62. Neuroendoscopy in the Treatment of Human Hydrocephalus and Other Anomalies. Neurology Keynote Speaker. The American College of Veterinary Internal Medicine (ACVIM). New Orleans, LA, June 2012.
63. ASAP Sponsored Research: Outcomes and Study Update. American Syringomyelia and Chiari Alliance Project Annual Meeting. Washington DC. July 2012.

64. Syringomyelia. American Syringomyelia and Chiari Alliance Project Annual Meeting. Washington DC. July 2012.
65. Central Nervous System Repair. Keynote Speaker. Conquer Chiari. Chicago, IL, November 2012.
66. Chiari 0. American Syringomyelia and Chiari Alliance Project Annual Meeting, Los Angeles, CA, July 2013.
67. ASAP Chiari and Syringomyelia Research Update. American Syringomyelia and Chiari Alliance Project Annual Meeting, Los Angeles, CA, July 2013.
68. Surgery for obstructive non-tumoral posterior fossa problems. 42<sup>nd</sup> Annual Meeting of the AANS/CNS Section on Pediatric Neurological Surgery, Toronto, Ontario, December 2013.
69. General Overview of Surgical Aspects of Pediatric Chiari with Focus on Chiari I and Syringomyelia. American Syringomyelia and Chiari Alliance Project Annual Meeting, Princeton, NJ, July 2014.
70. ASAP Chiari and Syringomyelia Research Update. American Syringomyelia and Chiari Alliance Project Annual Meeting, Princeton, NJ, July 2014.
71. Folate, Epigenetics, and Central Nervous System Repair. Translational Science Research Seminar Series, Nemours/Alfred I duPont Hospital for Children, Wilmington, DE, September 2014 (Visiting Professor).
72. Neuroendoscopy. Grand Rounds. Jefferson University Department of Neurosurgery. September 2014 (Visiting Professor).

#### *International*

1. The current management of pediatric brain tumors. American University of Beirut Neurology and Neurosurgery Grand Rounds. December 1998.
2. Spina Bifida Occulta. Neurology/Neurosurgery Grand rounds. American University of Beirut. December 1998.
3. Ventricle size and CT scan reports. WALN Second Homecoming Meeting. Beirut June 1999.
4. Shunt Deaths in the 1990s. WALN Second Homecoming Meeting. Beirut June 1999.
5. New Observations in Syringomyelia. Pan Arab Neurosurgical Society. October 2000.
6. Pediatric Brain Tumors. Middle East Medical Assembly. Beirut, May 2001
7. The folic acid effect is not limited to the embryonic CNS: Recent data from the injured adult CNS. 3<sup>rd</sup> International Neural Tube Defects Conference. Charleston, SC. September 2003.
8. Hydrocephalus: To shunt or not to shunt. WALN. Beirut. July 2004.
9. The role of DNA methylation in CNS regeneration. 4<sup>th</sup> International Neural Tube Defects Conference. Indian Wells, CA. September 2005.
10. Folate, DNA Methylation, and CNS Repair. WALN. Beirut. Lebanon. June 2006.
11. The Role of the Folate Pathway in CNS Regeneration and Repair. 5<sup>th</sup> International NTD Research Conference. Monterey. September 2007.
12. Folate and CNS Repair. WALN. Beirut. Lebanon. June 2009.
13. Epigenetics. WALN. Beirut. Lebanon. June 2009.

14. Endoscopy for Hydrocephalus. WALN. Beirut. Lebanon. June 2009.
15. Management of Tethered Cord Syndrome in adults. World Congress of Neurological Surgery Annual Meeting. Boston. MA. August-September 2009.
16. Myelomeningocele Closures. World Congress of Neurological Surgery Annual Meeting. Boston. MA. August-September 2009.
17. The role of the folate pathway in repair to the injured Central Nervous System. 6<sup>th</sup> International NTD Conference. Burlington. VT. September 2009.
18. Pediatric Neuroendoscopy. 4<sup>th</sup> World Congress for Endoscopic Surgery of the Brain, Skull Base and Spine. Pittsburgh, PA. April 2010.
19. Folate Promotes Endogenous Axonal Regeneration by Epigenetic Mechanisms. 8<sup>th</sup> International Conference on Homocysteine Metabolism, Lisboa, Portugal, June 2011.
20. Folic Acid Exerts Direct Effects on Spinal Cord Neurons to Enhance Axonal Regrowth after Injury: *in vitro*, 7<sup>th</sup> International Conference on Neural Tube Defects, Austin, TX, November 2011.
21. Transgenerational Epigenetic Enhancement of CNS Axon Regeneration through Folate Supplementation. The American Society of Pediatric Neurosurgeons 35<sup>th</sup> Annual Meeting, San Juan, Puerto Rico, February 2012.
22. Parameters of Folate-mediated Tissue Regeneration and Fairy Tale Heroines, FASEB Summer Research Conference Crete, July 2012.
23. Vein of Galen Malformation: Case Report. In, Great Saves and Great Complications. The World Association of Lebanese Neurosurgeons. Beirut, Lebanon. June 2013.
24. Intraventricular Neuroendoscopy: A Personal Experience. The World Association of Lebanese Neurosurgeons. Beirut, Lebanon. June 2013.
25. Transgenerational Epigenetic Inheritance of a Therapeutic Trait Methyl Supplementation. 8<sup>th</sup> International Conference on Neural Tube Defects. October 2013.
26. Spina bifida. Present challenges and future prospects. Invited Presentation. The American Society of Pediatric Neurosurgeons 37<sup>th</sup> Annual Meeting, Guanacaste, Costa Rica, January 2014.

#### CLINICAL TRIALS

1. Endoscopic Shunt Insertion Trial. Multi-center trial based in Vancouver, Canada (local PI) - completed
2. Genetic Study of Neural Tube Defects. Multi-Center trial based at Duke University Medical Center, Durham, NC (local PI) - ongoing
3. Shunt Infection Trial. Multi-center trial based in Utah (local PI) - completed
4. Folic acid in Pediatric Head Injury: A randomized controlled trial (PI) - completed
5. CSF Flow Studies in Chiari I malformation (PI) - completed
6. American Syringomyelia and Chiari Alliance Project: Chiari/syringomyelia surgery multi-center trial (Study PI) – accrual completed
7. Park Reeves Consortium Registry and Data Use Agreement, University of Washington (local PI) - ongoing

## RESEARCH SUPPORT

### Current

1. Theodore W. Batterman Family Foundation (1/1/13-12/31/15 no cost extension to 12/31/16), \$406,808

Title: Wisconsin Hydrocephalus Overshunting Project

Effort: .24 Calendar

Role: PI

2. American Syringomyelia Alliance Project (5/1/2007-4/30/2015), \$203,704

Title: Outcomes in Patients Undergoing Surgical Intervention for Chiari Type I Malformation with Syringomyelia Multi-Center Chiari Clinical Trial

Effort: .6 Calendar

Role: PI

3. Washington University (5/18/2011- )

Title: Park Reeves Syringomyelia Registry and Data Use Agreement

Effort: 1% (clinical Trial)

Role: Local PI

4. March of Dimes Gene Discovery and Translational Research Grant (6/1/2014-5/31/2017) \$275,000

Title: Epigenetic inheritance of a therapeutic trait.

Effort: 25%

Role: PI

### Completed

1. Howard Hughes Medical Investigator UW Pilot Project (2003-2005), \$50,000

Title: Folate antagonists in the injured adult CNS

The goal of this study is to identify the effect of select folate antagonists on CNS regeneration and recovery after injury. This study is providing the preliminary data needed for the in-depth study of the mechanism by which the folate pathway participates in CNS repair, as proposed in this application.

Role: PI

Effort: 25%

2. CreFF awardee from UW-GCRC supported by NIH-M01 RR03186 (expired)

Title: Randomized, placebo-controlled, double-blind, parallel group study to determine the efficacy and safety of intravenous folic acid in pediatric patients following severe traumatic brain injury: A pilot study.



The goal of this study is to examine the efficacy and safety of folic acid in children who have suffered a severe head injury within 6 hours of the traumatic event.

Role: PI  
Effort: 10%

3. American Syringomyelia Alliance Project \$50,000 (Completed)

Title: Spatial and Temporal CSF flow patterns in Chiari I malformation and the development of syringomyelia.

The objective of this pilot study is to examine the temporal and spatial dynamics at the foramen magnum of normal individual and patients with Chiari I malformation, with the long range goal of guiding therapy. My role is to provide the clinical population and help with the interpretation of the results in specific clinical settings. This study is providing preliminary data for submission of the NIH proposal below.

Role: PI  
Effort: 5%

5. Med School Research Committee: \$15,000 (PI)

6. Sponsor: American Association of Neurological Surgeons (7/2010-6/2011), \$40,000

Title: Folic Acid Increases Spinal Cord Regeneration Across Multiple Generations-Fellowship for Nirav Patel

Role: Mentor

8. NIH 3R01HD047516-04S1 ARRA Supplement (9/2009-9/2011) \$281,108

Title: Folic acid enhances repair in the adult CNS.

Role: PI  
Effort: 20% in conjunction with 1R01HD047516-01

9. 1R15NS071455-01 NIH R15 (5/2010-4/2012) \$486,116

Title: Clinical Utility of MR based Hydrodynamic Parameters in Chiari Malformation.

Role: Collaborator (PI Frank Loth)

Effort: 0%

11. Kohl for Kids \$50,000

Title: Think First Injury Prevention Program-Madison chapter

Role: Chapter Sponsor

12. NIH 1R01HD047516-01 (2006-2012) \$878,672

Title: Folic acid enhances repair in the adult CNS.

The objective of this study is to identify the mechanism of action of the folate and methionine-methylation pathway in CNS regeneration and recovery from injury.

Role: PI  
Effort: 25%

13. Sponsor: UW Graduate School Fall Competition (7/12/12-6/30/13) \$34,939

Title: Transgenerational effects of folate on CNS repair  
Role: PI

14. CSF Flow and CFD Studies for Chiari Malformation. Conquer Chiari.  
\$75,000 (co-PI with Frank Loth, PhD)

PATENTS APPROVED OR PENDING

1. P01334US: Electrosurgical drill for endoscopic craniosynostosis (expired)
2. Activation of axon repair by defined gene combinations CAP23/GAP43 (expired)
3. 5-methyltetrahydrofolic acid as therapy for tissue injury. Patent 61/075, 650 filed June 25, 2008 (expired).

PUBLICATIONS:

*Peer-reviewed*

1. **Iskandar BJ**, Oakes WJ, McLaughlin C, Osumi A, and Tien RD: Terminal Syringohydromyelia and Occult Spinal Dysraphism. *J Neurosurg* 81(4):513-519, 1994 (with cover illustration).
2. **Iskandar BJ**, Nashold BS Jr: History of functional neurosurgery. *Neurosurgery Clinics of North America* 6(1):1-25, 1995.
3. Ovelmen-Levitt J, Gorecki J, Nguyen B, **Iskandar BJ**, Nashold BS Jr: Spontaneous and Evoked Dysesthesias Observed in the Rat after Spinal Cordotomies. *Journal of Stereotactic and Functional Neurosurgery* 65 (1-4):157-60, 1995.
4. **Iskandar BJ**, McLaughlin C, Mapstone TB, Grabb PA, Oakes WJ: Pitfalls in the diagnosis of ventricular shunt dysfunction: Radiology reports and ventricular size. *Pediatrics* 101(6): 1031-1036, 1998.
5. **Iskandar BJ**, Hedlund G, Grabb PA, Oakes WJ: The resolution of syringomyelia after posterior fossa decompression. *J Neurosurg* 89(2):212-216, 1998.
6. **Iskandar BJ**, Fulmer B, Hadley M, Oakes WJ: Congenital tethered spinal cord in adults. *J Neurosurg* 88:958-961, 1998.
7. **Iskandar BJ**, Tubbs S, Mapstone T, Grabb PA, Bartolucci AA, Oakes WJ: Shunt Deaths in the 1990s. *Pediatric Neurosurgery* 28:173-176, 1998
8. **Iskandar BJ**: Current trends in the management of hydrocephalus, in *Picture of Health* television series, 1998.
9. Rauzzino MJ, **Iskandar B**, Oakes WJ: Occult Spinal Dysraphism. *Contemporary Neurosurgery* 20(22):1-6, 1998.
10. **Iskandar BJ**, McLaughlin C, Oakes WJ: Split Cord Malformations in Myelomeningocele Patients. *British Journal of Neurosurgery* 14(3):200-3, 2000
11. Binder DK, **Iskandar BJ**: Modern neurosurgery for psychiatric disorders. *Neurosurgery* 47(1): 9-23, 2000.
12. **Iskandar BJ**, Grabb P, Oakes WJ: Chiari Zero: The resolution of syringomyelia after posterior fossa decompression. *Neurosurgical Focus* 8(3): article 5, 2000.

13. Bomze HM, Bulsara KR, **Iskandar BJ**, Caroni P, Skene JHP: Activation of spinal axon regeneration by replacing two growth cone proteins in adult neurons. *Nature Neuroscience* 4(1):38-43, 2001.
14. **Iskandar BJ**, Ramirez L: An illustrated guide to epilepsy surgery. *Seminars in Pediatric Neurology* 7(3):224-240, 2000.
15. Melvin EC, George TM, Worley G, Franklin A, Mackey J, Viles K, Shah N, Drake CR, Enterline DS, McLone D, Nye J, Oakes WJ, McLaughlin C, Walker ML, Peterson P, Brei T, Buran C, Aben J, Ohm B, **Iskandar BJ**, Qumsiyeh M, Vance J, Perlcak-Vance MA, Speer MC and the NTD Collaborative Group: Genetic Studies in Neural Tube Defects. *Pediatr Neurosurg* 32:1-9, 2000.
16. Bulsara KR, **Iskandar BJ**, Villavicencio AT, Skene JHP. A New Millenium for Spinal Cord Regeneration: Growth Associated Genes. *Spine* 27:1946-1949, 2002.
17. Unlu A, Hariharan N, **Iskandar BJ**: Spinal cord regeneration induced by a voltage-gated calcium channel agonist. *Neurological Research* 24:639-642, 2002.
18. Haughton V, Korosek F, Medow J, Dolar M, **Iskandar BJ**: Peak systolic and diastolic CSF velocity in the foramen magnum in adult Chiari I patients and normal subjects *AJNR* 24:168-176, 2003.
19. Swartz KR, Resnick DK, **Iskandar BJ**, Wargowski D, Brockmeyer D, Opitz JM: Craniocervical Anomalies in Dubowitz Syndrome. Three Cases and a Literature Review. *Pediatric Neurosurgery* 38:238-243, 2003.
20. Maganti R, Rutecki P, Bell B, Woodard A, Jones J, Ramirez L, **Iskandar B**: Epilepsy Surgery Outcome Among United States Veterans *Epilepsy and Behavior* 4(6):723-8, 2003.
21. Dolar MTV, Haughton VM, **Iskandar BJ**, Quigley M. Effect of suboccipital craniectomy on CSF flow velocity in patients with Chiari I malformations *AJNR* 25:142-145, 2004.
22. **Iskandar BJ**, Mount D: Flat Heads: When to Worry, What to Do. *The Wisper* November 2003.
23. Lapsiwala S, **Iskandar BJ**: Congenital tethered cord presenting in adulthood: A review *Neurological Research* 26:735-40, 2004 .
24. **Iskandar BJ**: Comments: Russell Silver Syndrome and Tethered Spinal Cord. *Child's Nervous System* 20 (7): 480-82, 2004.
25. Tubbs RS, Wellons JC 3rd, **Iskandar BJ**, Oakes WJ. Isolated flat capillary midline lumbosacral hemangiomas as indicators of occult spinal dysraphism. *Journal of Neurosurgery-Pediatrics*. 100(2):86-9, 2004.
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87. **Iskandar BJ**. Transgenerational epigenetic enhancement of CNS axon regeneration through folate supplementation. ASPN. Puerto Rico, January 2012.
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