**Curriculum Vitae**

October 2023

**Name:**

David I. Sandberg, M.D., F.A.A.N.S, F.A.C.S, F.A.A.P.

**Present Title:**

Director of Pediatric Neurosurgery, Professor of Pediatric Surgery and Neurosurgery, Dr. Marnie Rose Professorship in Pediatric Neurosurgery

THINK Neurology Chair in Pediatric Tumor Research and Innovation

**Business Address:**

University of Texas Health Science Center at Houston

Department of Pediatric Surgery

6431 Fannin Street, Suite 5.144

Houston, Texas 77030

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David.I.Sandberg@uth.tmc.edu

**Undergraduate Education:**

1989 - 1993 Harvard University, Cambridge, Massachusetts

B.A. – History, *magna cum laude*

**Graduate Education:**

1993 - 1997 Johns Hopkins University School of Medicine, Baltimore, Maryland

M.D. – Medicine

**Postgraduate Training:**

1997 - 1998 Weill Medical College of Cornell University, New York, New York

New York Presbyterian Hospital - Cornell Campus, New York,

New York, Surgical Intern

1998 - 2003 Weill Medical College of Cornell University, New York, New York New York - Presbyterian Hospital and Memorial-Sloan Kettering Cancer Center, New York, New York

Resident in Neurosurgery

2000 Hospital for Sick Children; Toronto, Ontario, Canada

Visiting Fellow in Pediatric Neurosurgery

* 1. Children’s Hospital Los Angeles, Los Angeles, California Fellow in Pediatric Neurosurgery

**Academic Appointments:**

2004 – 2009 Assistant Professor of Clinical Neurological Surgery and Pediatrics, University of Miami Miller School of Medicine

2009 – 2010 Associate Professor of Clinical Neurological Surgery and Pediatrics, University of Miami Miller School of Medicine

2010 – May 2012 Voluntary Associate Professor of Clinical Neurological Surgery and Pediatrics, University of Miami Miller School of Medicine

June 2012 – August 2016 Director of Pediatric Neurosurgery Mischer Neuroscience Institute and Children's Memorial Hermann Hospital

Associate Professor University of Texas Medical School at Houston

Associate Professor and Co-Director of Pediatric Brain Tumor Program, University of Texas MD Anderson Cancer Center (July, 2012)

Sept. 2016 – present Professor of Pediatric Surgery and Neurosurgery

Director of Pediatric Neurosurgery

McGovern Medical School, University of Texas Health

Science Center at Houston, and Children’s Memorial

Hermann Hospital

Dr Marnie Rose Professorship in Pediatric Neurosurgery

Co-Director of Pediatric Brain Tumor Program, University of

Texas MD Anderson Cancer Center

**Hospital Appointments:**

2004 – 2009 Miami Children’s Hospital and Jackson Memorial Hospital,

Miami, Florida

2012 – Present Memorial Hermann/Children’s Memorial Hospital, Houston, Texas

2012 – Present The Woman’s Hospital of Texas, Houston, Texas

2012 – Present UT M.D. Anderson Cancer Center, Houston, Texas

2012 – 2020 Shriner’s Hospital for Children, Houston, Texas

**Licensure:**

**Active:**

2012 - Present Texas, License #**P3236**

**Inactive:**

1998 New York State License

2002 California State License

2004 Florida State License

**Certifications:**

American Board of Neurological Surgery, Primary Examination

American Board of Neurological Surgery, Diplomat

American Board of Pediatric Neurological Surgery

American Board of Surgery – General Surgery

Advanced Trauma Life Support

Advanced Cardiac Life Support

Pediatric Advanced Life Support

**Professional Organizations:**

**Local:**

2012 - Present Houston Pediatric Society, Secretary 2013

2012 - Present Harris County Medical Society

2013 - Present Dr. Marnie Rose Foundation – Honorary Board Member, 2013

**Regional:**

2012 - Present Texas Association of Neurological Surgeons, active member

**National:**

1999 - Present Congress of Neurological Surgeons (CNS) - resident member; active member 2004 - present; Member International Fellowship Selection Subcommittee 2006, 2007; Annual Meeting Abstract Reviewer 2011

1999 - Present American Association of Neurological Surgeons (AANS) - resident member; active provisional member 2004, active member 2007 – present, Membership Committee, 2010 – 2013, Annual Meeting Abstract Reviewer (2014 meeting).

2004 - Present Children’s Oncology Group, Associate Member

2005 - Present Pediatric Section Member, AANS/CNS; 2010 - 2019 member of Traveling Fellowship Committee; 2015 – 2019 Chairman of Traveling Fellowship Committee; Annual Meeting Abstract Reviewer 2007, 2011, 2013; Member of Pediatric Section Annual Meeting Subcommittee 2017-2018; 2017 National Meeting Co-Chairman

2007 - Present American Academy of Pediatrics, Fellow

2008 - Present American Society of Pediatric Neurosurgeons, Member

2008 - Present American College of Surgeons, Fellow

2012 - Present Hydrocephalus Association, Active Member; 2015-2018 Member

of Medical Advisory Board; Grant Reviewer 2017

2016 – Present Pediatric Arachnoid Cyst Foundation, Board of Directors

2018 – Present Cure4Kids, Intracranial GCT ACR Working Group

**International**:

2004 - Present Foundation for International Education in Neurological Surgery; member, Board of Directors, 2004-present; Secretary and Member

of Executive Committee, March, 2013 – March, 2018.

**Honors and Awards:**

1989 Valedictorian of class of 815 students, North Miami Beach Senior High School

1989 National Merit Scholar

1990 Robert C. Byrd Honors Scholarship

1990 Detur Prize for Academic Achievement

1992 Samuel H. Abramson Research Fellowship

1992 John Harvard Scholarship

1993 Phi Beta Kappa

1994 National Institutes of Health, Summer Research Fellowship

1999 AANS/CNS Resident Traveling Fellowship in Pediatric Neurosurgery

2001 Kenneth Shulman Award from AANS/CNS for best paper presented at Pediatric Neurological Surgery Section meeting

2002 Cornell Medical Center Alumni Council Distinguished Housestaff Award

2010 Miami Children’s Hospital Research Institute: Award for Excellence in Research

2013 AANS International Visiting Surgeons Fellowship Sponsor for Juan

Bosco Gonzalez Torres, M.D.

2015 Houston Men of Distinction Annual Award

2015 Hydrocephalus Association Medical Honoree Houston Walk

2016 Dr. Marnie Rose Professorship in Pediatric Neurosurgery

2018 Houston Business Journal Health Care Hero Honoree

2019 American Association of Neurological Surgeons Humanitarian

Award

2020 Houston Men of Distinction Annual Award

2023 THINK Neurology Chair in Pediatric Tumor Research and

Innovation

**Additional Educational Activities:**

1. Course Director, State of the Art Review: Pediatric Neurosurgery Course with Spanish Translation. AANS/CNS Pediatric Section Meeting, Miami, Florida, 2007.
2. Faculty, AANS Goodman Oral Board Review Course, Houston, Texas, 2009, 2010, 2011, 2012, 2013, 2014, 2015.
3. Faculty, Society of Neurological Surgeons Boot Camp, Houston, Texas, 2012, 2015
4. Faculty, 1st Annual Combined Ventricular and Skull Base Endoscopy Course for Neurosurgeons, Saint Louis University, St. Louis, Missouri, 2013.
5. Course Co-Director, Pediatric Neuro-Oncology Symposium, The University of Texas MD Anderson Cancer Center, 2014.
6. Faculty, 2st Annual Combined Ventricular and Skull Base Endoscopy Course for Neurosurgeons, Saint Louis University, St. Louis, Missouri, 2014.
7. Course Co-Director, Pediatric Neuroscience Symposium, Children’s Memorial Hermann Hospital, 2015.
8. Course Co-Director, Pediatric Neuroscience Symposium, Children’s Memorial Hermann Hospital, 2016
9. Course Co-Director, Pediatric Neuroscience Symposium, Children’s Memorial Hermann Hospital, 2017
10. Course Co-Director, Pediatric Neuroscience Symposium, Children’s Memorial Hermann Hospital, 2018
11. Faculty, AANS Global Neurosurgical Practice Course, San Diego, CA, 2019
12. Course Co-Director, Pediatric Neuroscience Symposium, Children’s Memorial Hermann Hospital, 2019
13. Course Co-Director, Pediatric Neuroscience Symposium, Children’s Memorial Hermann Hospital, 2020
14. Course Co-Director, Pediatric Neuroscience Symposium, Children’s Memorial Hermann Hospital, 2021
15. Course Co-Director, Pediatric Neuroscience Symposium, Children’s Memorial Hermann Hospital, 2022
16. Course Co-Director, Pediatric Neuroscience Symposium, Children’s Memorial Hermann Hospital, 2023

**Editorial Positions:**

1. Editor, ISPN Guide to Pediatric Neurosurgery, Tumor Section, 2011
2. Ad hoc reviewer, Neurosurgical Focus, 2005, 2006.
3. Ad hoc reviewer, Neurosurgery, 2007 – 2014, 2017, 2018, 2020
4. Ad hoc reviewer, Childs Nervous System, 2008 – 2012, 2014, 2020
5. Ad hoc reviewer, Case Reports in Medicine, 2009.
6. Ad hoc reviewer, American Journal of Neuroradiology, 2009, 2010.
7. Ad hoc reviewer, The Open Neurology Journal, 2010.
8. Ad hoc reviewer, Future Neurology, 2010.
9. Ad hoc reviewer, International Journal of Neuroscience, 2011.
10. Ad hoc reviewer, Journal of Neuro-Oncology, 2012, 2018, 2020
11. Ad hoc reviewer, CNS Oncology, 2012.
12. Ad hoc reviewer, Pediatric Neurosurgery, 2014, 2017, 2020, 2022
13. Reviewer and Section Editor, World Neurosurgery, 2015.; Ad hoc reviewer 2016
14. Ad hoc reviewer, Operative Neurosurgery, 2016, 2021, 2022, 2023
15. Ad hoc reviewer, JAMA Pediatrics, 2017

**Service on Other Hospital Committees:**

Miami Children’s Hospital Mortality Committee, 2008-2012

Miami Children’s Hospital Performance Improvement Committee, 2011-2012

Children’s Memorial Hermann Hospital Greatness Project, Steering Committee, 2016

Memorial Hermann Oncology Service Line Physician Strategic Steering Committee;

2016-2017

Faculty Appointments, Promotions, and Tenure Ad Hoc Committee, McGovern Medical

School, 2019

Neurosurgery Chairman Search Committee, McGovern Medical School, 2022

Pediatric Neuro-Oncology Search Committee Co-Chair, MD Anderson Cancer Center, 2022

**Service to the Community:**

**Volunteer Neurosurgical Medical Trips Abroad:**

1999 Guatemala City, Guatemala

2001 Guatemala City, Guatemala

2001 Tegucigalpa, Honduras – (FIENS) Foundation for International Education in Neurological Surgery.

2002 Tegucigalpa, Honduras – (FIENS) Foundation for International Education in Neurological Surgery.

2004 Lima, Peru – (FIENS) Foundation for International Education in Neurological Surgery.

2004 Tegucigalpa, Honduras – (FIENS) Foundation for International Education in Neurological Surgery.

2005 Tegucigalpa, Honduras – (FIENS) Foundation for International Education in Neurological Surgery.

2006 Mbale, Uganda – CURE International

2007 Port-au-Prince, Haiti – Project Medishare

2008 Port-au-Prince, Haiti – Project Medishare

2009 Guatemala City, Guatemala – (FIENS) Foundation of International Education in Neurological Surgery

2009 Port-au-Prince, Haiti – Project Medishare

2010 Port-au-Prince, Haiti – Project Medishare

2013 Port-au-Prince, Haiti – Project Medishare

2014 Port-au-Prince, Haiti – Project Medishare

2015 Port-au-Prince, Haiti – Project Medishare

2017 Port-au-Prince, Haiti – Project Medishare

2018 Port-au-Prince, Haiti – Project Medishare

2019 Port-au-Prince, Haiti – Project Medishare

2023 Oaxaca, Mexico

2023 Oaxaca, Mexico (second trip)

**Sponsorship of Undergraduate Students:**

April 6, 2015 – June 5, 2015 Ashley Niemerski, Observership, University of Texas Health Science Center at Houston

**Sponsorship of Medical Students:**

2008-2009 Derek Covington, University of Miami Miller School of Medicine; awarded AOA fellowship for study on Chiari Malformations

2009-2011 Kenneth Crandall, University of Miami Miller School of Medicine; studies in piglets on local drug delivery into the fourth ventricle

May 27, 2014 – August 11, 2014 Eliel N. Arrey, Summer Research Program, University of Texas Health Science Center at Houston

May 26, 2015 – August 10, 2015 Joshua Gu, Summer Research Program, University of Texas Health Science Center at Houston

May 2016 – August, 2016 Claudia Martinez, Summer Research Program, University of Texas Health Science Center at Houston

May 2017 – August 2017 Joe Brewer, Summer Research Program, University of Texas Health Science Center at Houston

November 2018-2020 Natasha Kharas, McGovern Medical School, sponsorship of primate research project

April 2021 Corinne Mayap Fotso, McGovern Medical School, sponsorship of primate research project

**Pediatric Neurosurgery Fellowship Director**:

July 2020 – June 2021 Ahmed Belal, M.D.

July 2023—June 2023 Bharath Raju, M.D.

**Sponsorship of International Observers:**

May 1, 2013 – August 1, 2013 Juan Bosco Gonzalez, MD (Nicaragua), Observership awarded by the 2013 American Association of Neurological Surgeons International Visiting Surgeons Fellowship, University of Texas Health Science Center at Houston.

May 2, 2016 – July 1, 2016 Ali Riazi, MD (Iran)

**Mentoring Activities:**

**2012 – Present Observerships, University of Texas Health Science Center at Houston**

Supervision of medical students rotating through pediatric neurosurgery

**2014 – Present Summer Research Program, University of Texas Health Science Center at Houston**

Supervision of medical students performing summer research projects in the Division of Pediatric Neurosurgery

**2018 – Present Goldie Scholars Program**

Mentoring of Low Income College Scholarship Recipients

**Current Grant Support:**

2019-2024 **R01 NS111292** (PI: Sirianni)

Funding institution NIH/$1,660,000

Role: co-Investigator

Title: “Targeting leptomeningeal metastasis in medulloblastoma”

2019-2024 **RO1 HD099543** (PI: Sirianni)

Funding Institution NIH/$2,475,000

Role: co-Investigator

Title: “Intrathecal delivery of radiation sensitizing

nanoparticles in pediatric neuro-oncology”

**Past Grant Support:**

2001, 2002 **Emily Dorfman Foundation**. Co-investigator, $100,000 research grant. Convection-Enhanced Delivery for the Treatment of Diffuse Pontine Gliomas.

2005 **Miami Children’s Hospital Research Institute Seed Grant**

Principal Investigator, $20,000 grant. Chemotherapy Administration into The Fourth Ventricle.

2007 **Woman’s Cancer Association of the University of Miami.**

Principal Investigator, $50,000 grant. Direct Administration of Chemotherapy into the Fourth Ventricle of the Brain: A Novel Treatment Approach to Malignant Tumors of the Posterior Fossa in Children.

2008 **Miami Children’s Hospital Foundation.** Principal Investigator, $25,000 grant. Direct Administration of Chemotherapy into the Fourth Ventricle: A Novel Treatment Approach for Malignant Posterior Fossa Brain Tumors of Childhood.

2010 **Woman’s Cancer Association of the University of Miami**

Principal Investigator, $50,000 grant. Direct Administration of Chemotherapy into the Fourth Ventricle of the Brain in Primates: A Model for Treatment of Malignant Posterior Fossa Brain Tumors in Children.

2013 - 2015 **Texas 4000 for Cancer**

Principal Investigator, $50,000 grant. Methotrexate Infusion

into the Fourth Ventricle in Children with Malignant Fourth

Ventricular Brain Tumors: A Pilot Study.

2013 – 2016 **Cure Childhood Cancer, Inc.**

Co-Principal Investigator, $200,000 grant. Pilot study on

administration of NK cells into the fourth ventricle for

treatment of patients with posterior fossa brain tumors.

2015 **Houston Men of Distinction Annual Award**

Principal Investigator, $100,000 grant. Local Delivery of Chemotherapy into the Fourth Ventricle of the Brain: A Novel Treatment Modality for Malignant Pediatric Brain Tumors.

2018 **Ian’s Friends Foundation**

Principal Investigator, $125,000 grant to study local drug delivery in the brain for malignant brain tumors in children

**Research Interests:**

2004-present **Direct Administration of Chemotherapy into the Fourth Ventricle for Treatment of Malignant Posterior Fossa Tumors of Childhood.** Principal Investigator, developed piglet and primate models for direct infusions into the fourth ventricle. Principal Investigator of First in

Humans Clinical Trials for Fourth ventricular Drug Delivery at UT Houston and University of Texas MD Anderson Cancer Center, 2012-present.

2000-2002 **Convection-Enhanced Delivery for the Treatment of Diffuse Pontine Gliomas**. Co-investigator; demonstrated safety and determined distribution parameters for brain stem infusions in a rat model.

2005-2012 **Novel Optical Guidance for Surgical Resection of Pediatric Neoplastic and Epileptogenic Brain Lesions.** Co-investigator, investigating intraoperative optical imaging techniques.

**Publications:**

**Abstracts (\*Reviewed)**:

1. Frucht DM, Yeung C, **Sandberg D**, Holland SM. "Interleukin-12 Deficiency in Patients With Familial Disseminated Mycobacterium Avium Complex Infection." **Journal of Investigative Medicine Suppl.** 43(2): 364A, 1995.
2. **Sandberg D**, Watts M, Tyler B, Brem H. "Cytotoxicity of Taxotere in Vitro Against Human and Rat Malignant Glioma Cell Lines." American Association of Neurological Surgeons. Denver, Colorado, 1997. (poster presentation).
3. Watts M, **Sandberg D**, Sills A, Bohan E, Gibbons C, Brem H. "Chemotherapeutic Resistance Patterns of Tumor Specimens From Patients With Glioblastoma Multiforme and Glioma Cell Lines. American Association of Neurological Surgeons. Denver, Colorado, 1997. (poster presentation).
4. **Sandberg D**, Souweidane M. "Endoscopic-Guided Proximal Catheter Placement in Treatment of Posterior Fossa Cysts." AANS/CNS Section on Pediatric Neurological Surgery. Indianapolis, Indiana, 1998. (poster presentation).
5. **Sandberg D**, Bilsky M, Souweidane M, Bzdil J, Gargan-Klinger R, Gutin P. "Ventricular Access Devices for Leptomeningeal Disease: Techniques and Complications." Congress of Neurological Surgeons. Boston, Massachusetts, 1999. (poster presentation).
6. Souweidane M, **Sandberg D**, Bilsky M, Gutin P. "Endoscopic Biopsy of Tumors of the Third Ventricle." Congress of Neurological Surgeons. Boston, Massachusetts, 1999. (oral poster presentation).
7. Souweidane M, **Sandberg D**, Rutka J, Resch L, Edgar M. "MIB-1 Staining Index of Pediatric Meningiomas." AANS/CNS Section on Pediatric Neurological Surgery. Atlanta, 1999. (oral presentation).
8. **Sandberg D**, Edgar M, Souweidane M. "Convection-Enhanced Delivery into the Brain Stem: An animal model." Congress of Neurological Surgeons. San Diego, California, 2001. (oral presentation).
9. **Sandberg D**, Edgar M, Souweidane M. “Convection-Enhanced Delivery into the Rat Brain Stem: A Potential Delivery Mechanism for the Treatment of Diffuse Pontine Gliomas.” AANS/CNS Section on Pediatric Neurological Surgery. New York, New York, 2001 (oral presentation).
10. **Sandberg D**, Edgar M, Souweidane M. “Convection-Enhanced Delivery into the Rat Brain Stem: A Potential Delivery Mechanism for the Treatment of Diffuse Pontine Gliomas.” American Association of Neurological Surgeons. Chicago, Illinois, 2002 (oral presentation for Kenneth Shulman Award).
11. Ochiogrosso G, Sandberg D, Edgar M, Souweidane M. "Chronic Brain Stem Infusion as a Potential Delivery System for Diffuse Pontine Gliomas: An Animal Model.” American Association of Neurological Surgeons. Chicago, Illinois, 2002 (oral presentation).
12. **Sandberg DI**, Souweidane MM, Kushner BH,, Laquaglia MP, Bilsky MH, Kushner BH. "Treatment of spinal involvement in neuroblastoma patients." Congress of Neurological Surgeons. Denver, Colorado, 2003 (oral presentation).
13. Oh BH, Krieger MD, **Sandberg DI**, Finlay J, McComb JG. "Neurofibromatosis 3: A Report of Patients Meeting Diagnostic Criteria for Both Neurofibromatosis 1 and 2." International Symposium on Pediatric Neuro-Oncology. Boston, MA 2004 (oral presentation).
14. Heller C, Krieger MD, **Sandberg DI**, Oh BC, McComb JG. "Programmable Versus Fixed-Pressure Valves for the Treatment of Hydrocephalus in Children." 32nd Annual Meeting of the International Society for Pediatric Neurosurgery. Buenos Aires, Argentina, 2004 (oral presentation).
15. **Sandberg DI**, McComb JG, Krieger MD, Gilles FH. "Why do arachnoid cysts enlarge?" 32nd Annual Meeting of the International Society for Pediatric Neurosurgery. Buenos Aires, Argentina, 2004 (oral presentation).
16. Heller C, Krieger MD, **Sandberg DI**, Oh BC, McComb JG. "Programmable Versus Fixed-Pressure Valves for the Treatment of Hydrocephalus in Children." AANS/CNS Section on Pediatric Neurological Surgery. San Francisco, CA, 2004 (oral presentation).
17. **Sandberg DI**, McComb JG, Krieger MD. "Chemical Analysis of Fluid Obtained From Intracranial Arachnoid Cysts in Pediatric Patients." AANS/CNS Section on Pediatric Neurological Surgery. San Francisco, CA, 2004 (oral presentation).
18. **Sandberg DI**, McComb JG, Krieger MD. "Craniotomy for Multiloculated Hydrocephalus in Pediatric Patients." AANS/CNS Section on Pediatric Neurological Surgery. San Francisco, CA, 2004 (oral presentation).
19. Berry C, Hoh DJ, **Sandberg DI**, Sosa IJ, Krieger MD, McComb JG. "The Use of Cranial Fixation Pins in Pediatric Neurosurgery." Congress of Neurological Surgeons. Boston, MA, 2005 (oral presentation).
20. **Sandberg DI**, Morrison G, Bhatia S, Olavarria G, Ragheb J, Duchowny M, Jayakar P, Lin W-C. "Optical Characterization of Pediatric Brain Tumors and Epileptogenic Lesions." AANS/CNS Section on Pediatric Neurological Surgery. Orlando, FL, 2005 (oral presentation).
21. Crandall, K, Kuluz J, Padgett K, Landrum J, Babino D, Petito CK, He D, Solano J, Gonzalez-Brito M, **Sandberg DI**. "A Novel Method of Chemotherapy Delivery to the Fourth Ventricle." Eastern-Atlantic Student Research Forum. Miami, FL, 2007 (oral presentation).
22. Farhat H, Delgado AL, Salame J, **Sandberg D**, Bhatia S, Ragheb J, Zauner A. "Safety and Efficacy of Neuroendovascular Procedures in Children." American Association of Neurological Surgeons. Washington, D.C., 2007 (oral presentation).
23. Bhatia S, Ragheb J, **Sandberg DI**, Morrison G, Jayakar P, Fernandez A, Lin WC. "In Vivo Characterization of Pediatric Epileptogenic Lesions Using Optical Spectroscopy. American Association of Neurological Surgeons. Washington, D.C., 2007 (oral presentation).
24. Brindle TI, Ragheb J, Bhatia S, Morrison G, **Sandberg DI**. "Management of Idiopathic Small Syringes in Pediatric Patients." AANS/CNS Section on Pediatric Neurological Surgery; Miami, FL 2007 (poster presentation).
25. Ragheb J, Bhatia S, **Sandberg D**, Morrison G, Lin W-C, Oh S, Fernald B. "Fluorescence and Diffuse Reflectance Spectroscopy for Intraoperative Guidance in Pediatric Brain Surgery." AANS/CNS Section on Pediatric Neurological Surgery; Miami, FL 2007 (oral presentation).
26. **Sandberg DI**, Crandall K, Petito CK, Padgett K, Landrum J, Babino D, He D, Solano J, Gonzalez-Brito M, Kuluz JW. "Direct Administration of Chemotherapy into the Fourth Ventricle in a Piglet Model." AANS/CNS Section on Pediatric Neurological Surgery; Miami, FL 2007 (oral presentation).
27. **Sandberg DI**, Crandall K, Petito CK, Padgett K, Landrum J, Babino D, He D, Benglis DM, Ramirez MA, Kuluz JW. "Distribution of Etoposide in Cerebrospinal Fluid After Infusions into the Fourth Ventricle in Piglets." American Society of Pediatric Neurosurgeons; Cabo San Lucas, Mexico, 2008 (oral presentation); published in J Neurosurg Pediatrics: 2008, April 1(4): 354A.
28. Oh S, Fernald B, Bhatia S, Ragheb J, **Sandberg D**, Johnson M, Lin W-C. "Differentiating Pediatric Epileptic Cortical Lesions from Normal Cortex by Using Time-Dependent Diffuse Reflectance Spectroscopy *In Vivo*." International Society of Optical Engineering; Orlando, FL,

2009 (oral presentation).

1. Ragheb J, Bhatia S, **Sandberg D**, McNeil A. "Pediatric Neurosurgery in Haiti." American Society of Pediatric Neurosurgeons. Kohala Coast, HI, 2009 (oral presentation).
2. **Sandberg DI**, Solano J, Petito CK, Mian A, Mou C, Koru-Sengul T, Gonzalez-Brito M, Padgett KR, Luqman A, Buitrago JC, Alam F, Wilkerson JR, Crandall KM, Kuluz JW. "Safety and Pharmacokinetic Analysis After Methotrexate Administration Directly into the Fourth Ventricle in a Piglet Model." American Association of Neurological Surgery. Philadelphia, PA, 2010 (electronic poster).
3. Benglis D, Covington DB, Bhatia R, Bhatia S, Elhammady S, Ragheb J, Morrison G, **Sandberg DI**. "Outcomes in Pediatric Patients with Chiari I Malformation Treated Without Surgery." American Association of Neurological Surgery. Philadelphia, PA, 2010 (oral presentation).
4. Alghamdi S, Castellano-Sanchez A, Brathwaite C, Melnick S, **Sandberg D**, Olavarria G, Khatib Z, Giannini C, Burger P. "Diffuse Low Grade Leptomeningeal Glio-Neuronal Tumor Not an Oligodendrogliomatosis: Clinico-Pathological Features of 2 Cases". America Association of Neuropathologists, Seattle, WA, 2011 (poster presentation).
5. Nair S, **Sandberg DI**, Ragheb J, Khatib Z, Zoeller G, Thambuswamy M, Lee V, DeAngulo G. "Observation as a Strategy for Management of Solitary Calvarial Eosinophilic Granuloma." American Society of Pediatric Hematology Oncology. Baltimore, MD, 2011 (poster presentation).
6. **Sandberg DI**, Peet MM, Johnson MD, Cole P, Koru-Sengul T, Luqman AW. "Chemotherapy Administration Directly into the Fourth Ventricle in a Non-Human Primate Model." AANS/CNS Section on Pediatrics. Austin, TX, 2011 (oral presentation).
7. **Sandberg DI**, Nair S, Khatib Z, Ragheb J, Lee V, De Angulo G. "Non-operative Management of Solitary Eosinophilic Granulomas of the Calvarium." American Society of Pediatric Neurosurgeons, Puerto Rico, 2012 (oral presentation).
8. **Sandberg DI**, Zoeller G, Bhatia, S, Ragheb J. "Endoscopic Choroid Plexus Coagulation in Infants with Hydranencephaly and Hydrocephalus with Minimal Cortical Mantle." American Association of Neurological Surgery. Miami, FL 2012 (electronic poster presentation).
9. Chamiraju P, **Sandberg DI**, Ragheb J, Bhatia S. “Role of Endoscopic Third Ventriculostomy and Choroid Plexus Coagulation in Post-Hemorrhagic Hydrocephalus of Prematurity.” AANS/CNS Section on Pediatric Neurological Surgery. St. Louis, MO, 2012 (oral presentation).
10. **Sandberg DI**, Soumen Khatua, M.D., Michael Rytting, M.D., Wafik Zaky, M.D., Marcia Kerr, R.N., Mary Tomaras, B.S., Tiffany Butler, R.N., Leena Ketonen, M.D., Ph.D., Uma Kundu, M.D., Bartlett D. Moore, Ph.D., Grace Yang, M.Ed., LPC. “Methotrexate Infusion Directly into the Fourth Ventricle in Children with Malignant Fourth Ventricular Brain Tumors: A Pilot Clinical Trial. AANS/CNS Section on Pediatric Neurological Surgery. Toronto, CA 2013 (oral presentation).
11. **Sandberg DI**, Austin MT, Nguyen H, Eberth JM, Heczey A, Hughes DP, Elting LS. “Health Disparities Impact Outcome in Children with CNS Malignancies.” American Association of Neurological Surgeons Meeting. San Francisco, CA, 2014 (oral presentation).
12. **Sandberg DI**, Khatua S, Rytting, M, Zaky W, Tomaras M, Kerr M, Ketonen L, Kundu U, Moore BD, Yang G. “Methotrexate Infusion Directly into the Fourth Ventricle for Treatment of Recurrent Malignant Fourth Ventricular Brain Tumors: A Pilot Clinical Trial.” American Society of Pediatric Hematology/Oncology. Chicago, IL, 2014 (poster presentation).
13. Steinbok P, **Sandberg D**, Hengel R, Dix D, Bhatia S, Limbrik D, Tamber M, Souweidane M, Handler M. “Non-operative management of suspected solitary calvarial histiocytosis in children.” Histiocyte Society, 30th Annual Meeting, Toronto, CA, 2014 (poster presentation).
14. Ramani N, Kannan G, Zaky W, Morani A, **Sandberg D**, Ketonen L, Maher O, Corrales-Medina F, Meador H, Khatua S. Temozolomide, Bevacizumab with or without Irinotecan in Pediatric Brain Tumors – MD Anderson Cancer Center Experience.16th International Symposium on Pediatric Neuro-Oncology, Singapore, 2014.
15. Maher O, **Sandberg D**, Kannan G, McGovern S, Ketonen L, Katua S, Zaky W. “Primary Leptomeningeal Primitive Neuroectodernal Tumor: Case Report. 19th Annual Scientific Meeting of the Society for Neuro-Oncology, Miami, FL 2014.
16. Arrey EN, Kerr ML, Fletcher S, Cox CS, **Sandberg DI**. “Linear Non-Displaced Skull Fractures in Children: Is Hospitalization Necessary?” AANS/CNS Section on Pediatric Neurological Surgery. Amelia Island, FL 2014 (oral presentation).
17. **Sandberg DI**. “Neurological Deterioration After Aggressive Resection of Midbrain Tumor.” American Society of Pediatric Neurosurgeons, Kona, HI, 2015 (oral presentation).

46. **Sandberg DI,** Rytting M, Zaky W**,** Kerr M, Ketonen L, Kundu U, Moore BD, Yang

G, Hou P, Sitton C, Cooper LJ, Gopalakrishnan V, Lee DA, Thall PF, Khatua S. “Pilot Clinical Trial Evaluating Chemotherapy Administration Directly into the Fourth Ventricle in Children with Malignant Fourth Ventricular Brain Tumors.” AANS/CNS Section on Pediatric Neurological Surgery. Seattle, WA 2015 (oral presentation).

1. Khatua S, **Sandberg DI**, Keetonen L, Cooper LJ, Gopalakrishnan V, Lee DA,

Moyes J, Liu D, Zaky W. “Phase I Study of Fourth Ventricular Infusions of Ex-Vivo Expanded Natural Killer Cells in Children with Recurrent/Refractory Malignant Posterior Fossa Tumors of the Central Nervous System.” Society for Neuro-Oncology. San Antonio, TX 2015 (poster presentation).

48. **Sandberg DI**, Kerr M. “Technical Pearls: Ventricular Access Device

Placement in the Fourth Ventricle to Treat Malignant Fourth Ventricle Brain

Tumors.” American Society of Pediatric Neurosurgeons, Aruba 2016 (oral

presentation).

49. Gu JL, Johnson A, Kerr M, Moise KJ, Bebbington MW, Pedroza C, **Sandberg**

**DI**. “Correlating Prenatal Imaging Findings of Fetal Ventriculomegaly with the

Need for Surgical Intervention in the First Three Month After Birth.” American

Association of Neurological Surgeons, Chicago 2016 (oral presentation).

50. Frim, DM, Madsen JR, Boyle TP, Neuman MI, Tamber MS, Hickey RW,

Heuer GG, Zorc J, Leonard JR, Leonard JC, Keating R, Chamberlain J,

Zakrzewshi P, Klinge P, Merck LM, Piatt JH, Bennett JE, **Sandberg DI**, Boop

FA. “Thermal Flow Detection Improves Diagnostic Accuracy of Shunt

Malfunction: A Prospective, Multicenter, Operator-Blinded Study. American

Association of Neurological Surgeons, Chicago 2016 (oral plenary

presentation).

51. Patel, R, Sitton C, Kerr M, Fletcher S, Shah M, **Sandberg DI.** “Role of

Cerebrospinal Fluid (CSF) Imaging in Evaluating Distribution of Infused Agents

From the Fourth Ventricle to the Total Spine.” American Society of

Neuroradiology, Washington DC, 2016 (electronic poster presentation).

52. **Sandberg DI**, Patel RP, Kerr M, Sitton CW, Ketonen LM, Ping Hou P,

Johnson JM, Shah MN, Fletcher S, Zaky W, Rytting ME, Khatua S. “Phase-

Contrast Cine Cerebrospinal Fluid (CSF) Flow Magnetic Resonance Imaging

(MRI) in Evaluating Distribution of Infused Agents from the Fourth Ventricle to the Total Spine.” AANS/CNS Section on Pediatric Neurological Surgery. Orlando, FL 2016 (oral presentation).

53. Martinez CL, Fletcher S, Shah MN, Kerr M, **Sandberg DI**. “Survey of

Techniques Used to Access Ventricular Shunts and Reservoirs.”

AANS/CNS Section on Pediatric Neurological Surgery. Orlando, FL 2016 (poster presentation).

54. Venkataraman SS\*, Herbert JP\*, Turkmani AH, Kerr ML, Greives MR,

Fletcher SA, **Sandberg DI**, Cox CS, Kitagawa RS, Day AL, Shah MN. “Pediatric Blunt Cerebrovascular Injury: the McGovern Experience.” AANS/CNS Section on Pediatric Neurological Surgery. Orlando, FL 2016 (poster presentation).

55. Grabell DA, Shah MN, Pinney SS, **Sandberg DI**, Greives MR, Hebert AA.

“Lumbosacral Hemangiomas and Tethered Cord.” Houston Dermatological

Society; Houston, TX, 2016 (oral presentation).

56. Grabell D, Shah M, Pinney S, **Sandberg DI**, Greives M, Hebert A.

“Lumbosacral Hemangiomas and Tethered Cord.” American Academy of Dermatology Annual Meeting; Orlando, FL, 2017. (poster presentation)

57. Boyle, TP, Madsen JR, M.D., Neuman MI, Tamber MS, Hickey, RW, Heuer

GG, Leonard JR, Leonard JC, Keating R, Chamberlain J, Frim DM, Zakrzewski P, Klinge PM, Merck LH, Piatt JH, M.D., Bennett JE, **Sandberg DI**, Boop FA, Zorc JJ. “ShuntCheck Versus Neuroimaging For Diagnosing

Ventricular Shunt Malfunction in the Emergency Department.” Pediatric Academic Societies Annual Meeting; San Francisco, CA, 2017 (oral presentation).

58. **Sandberg DI**, Kerr M, Rytting M, Zaky W, Patel RP, Sitton C, Ketonen L,

Shah MN, Fletcher S, Khatua S. “Chemotherapy Administration Directly into

the Fourth Ventricle in Children with Recurrent Malignant Brain Tumors: Results of Two Pilot Clinical Trials.” International Society for Pediatric Neurosurgery Annual Meeting; Denver, CO, 2017 (oral flash presentation).

59. Brewer JW, Cox CS, Fletcher SA, Shah MN, Sandberg M, Kerr ML,

**Sandberg DI**. “Analysis of Pediatric Gunshot Wounds in Houston Texas: A Social Perspective.” AANS/CNS Section on Pediatric Neurological Surgery. Houston, TX, 2017 (oral presentation).

60. Mastall M, Majd N, Hess K, Fuller G, Alfaro K, Gule-Monroe M, Huse J,

Khatua S, Rao G, **Sandberg D,** Wefel J, Yeboa D, Zaky W, Mahajan A,

Puduvalli V, Suki D, Weathers S, Harrison R, De Groot J, Penas-Prado M.

“Characterization of Adult Medulloblastoma Patients at Recurrence;

Retrospective review of the MD Anderson Experience.” Society for Neuro-

Oncology Annual Meeting, New Orleans, LA, 2018 (poster presentation).

61. Trimble, DJ, Parker SL, Zhu L, Cox CS, Kitagawa RS, Fletcher SA,

**Sandberg DI**, Shah MN. “Outcomes in Pediatric Patients with Blunt Head

Trauma and a Glasgow Coma Scale Score of 3 at Presentation.”

AANS/CNS Section on Pediatric Neurosurgery. Nashville, TN, 2018 (oral

presentation).

62. **Sandberg DI**, Yu B, Patel R, Hagan J, Miesner E, Sabin J, Smith S,

Fletcher S, Shah MN, Sirianni RW, Taylor MD. “Infusion of 5-Azacytidine

5-AZA) into the Fourth Ventricle or Resection Cavity in Children With

Recurrent Posterior Fossa: A Pilot Study. American Society of Pediatric

Neurosurgeons. Kauai, HI, 2019 (oral presentation).

63. Fishel Bartal M., Bergh EP , Sosa M, Fletcher S, Lopez S, Austin M, Tsao K,

Moise Jr. K, Johnson A , Shah M, **Sandberg DI**, Papanna R. “Primary

Versus patch-based skin repair for in-utero spina bifida repair: Predictors

and clinical outcomes.” Society for Maternal-Fetal Medicine 40th Annual

meeting, Dallas, TX, 2020 (poster presentation)

64. Kharas N, Yu B, Jannsen CF, Trimble AL, Ballester LY, Patel R, Elmquist W,

Mohammad AS, Talele S, Sirianni RW, **Sandberg DI**. “High Dose MTX110

(Soluble Panobinostat) Safely Administered into the Fourth Ventricle in a

Non-Human Primate Model. American Association of Neurological

Surgeons, Boston, MA 2020 (accepted as e-poster, meeting cancelled due

to Covid19 pandemic)

65. Kharas N, Yu B, Jannsen CF, Trimble AL, Ballester LY, Patel R, Elmquist W,

Mohammad AS, Talele S, Sirianni RW, **Sandberg DI**. “High Dose MTX110

(Soluble Panobinostat) Safely Administered into the Fourth Ventricle in a

Non-Human Primate Model. Congress of Neurological Surgeons, 2020

(video presentation, virtual meeting)

66. Kharas N, Yu B, Jannsen CF, Trimble AL, Ballester LY, Patel R, Elmquist W,

Mohammad AS, Elmquist WF, Sirianni RW, **Sandberg DI**. “High Dose

MTX110 (Soluble Panobinostat) Safely Administered into the Fourth

Ventricle in a Non-Human Primate Model.” AANS/CNS 2020 Pediatric

Section Meeting (oral presentation, virtual meeting).

67. Fowler M, Sirianni R, **Sandberg D**, Ballester L, Yu B, Mehta S. “Synthetic

Electrospun Scoffolds as a Medulloblastoma Leptomeningeal Metastasis.”

Biomedical Engineering Society Virtual Meeting 2020 (poster presentation).

68. Steinbok P, Cheong A, Dix D, **Sandberg DI**. “Non-operative management of

suspected calvarial Langerhans Cell Histiocytosis in children – a prospective

multicenter study. International Society of Pediatric Neurosurgery, Virtual

Meeting 2021, published in Child’s Nervous System (2021) 37:3624

69. **Sandberg DI**. “A Challenging Loculated Cystic Lesion: What to do When the

First Two Operations Fail.” American Society of Pediatric Neurosurgeons.

Puerto Rico, 2023, oral presentation.

70. Anderson M, Hersh D, Ackerman L, Albert G, Auguste K, Chern J,

Danielpour M, DeCuypere M, Dewan M, Dunbar E, Edwards B, Garcia C,

Gernsback J, Gonda D, Governale L, Haught J, Iqbal M, Kaufman C,

Koutsouras G, Lehmann H, Martin J, Michelow I, Mierke S, Monsour M,

Notarianni C, OKeiff H, Omini M, Patel S, Pen C, Proctor C, Ravindra V,

Rothstein B, **Sandberg D**, Shirrell M, Still M, Tanaka T, Tomei K, Tovar-

Spinoza Z, Tye G, Votoupal M, Yu B, Pindrik J. “Pediatric Sinogenic and

Otogenic Intracranial Infections: Preliminary Results of a Multicenter Study.

2023 AANS/CNS Section Meeting on Pediatric Neurological Surgery,

Oklahoma City, OK, oral presentation.

71. Martinez, Emilie L, Welscher A, Shah MN, **Sandberg DI**. “Elevation of

Depressed Skull Fracture in Neonates Utilizing a Breast Pump and Custom

Molded Flange.” 2023 AANS/CNS Section Meeting on Pediatric Neurological

Surgery, Oklahoma City, OK, digital poster presentation.

**Refereed Original Articles in Journals:**

1. Frucht DM, **Sandberg DI**, Brown MR, Gerstberger SM, Holland SM. “IL-12-Independent Costimulation Pathways for Interferon-Gamma Production in Familial Disseminated Mycobacterium Avium Complex Infection. **Clin Immunol** **91(2)**: 234-41, 1999.
2. **Sandberg DI**, Lavyne MH: "Symptomatic Spinal Epidural Lipomatosis After Local Epidural Steroid Injections: Case Report.” **Neurosurgery 45**: 162-165, 1999.
3. **Sandberg DI**, Souweidane MM. "Endoscopic-Guided Proximal Catheter Placement in Treatment of Posterior Fossa Cysts." **Pediatr Neurosurg 30**: 180-185, 1999.
4. **Sandberg DI**, Souweidane MM. "Hemifacial Spasm Caused by a Pilocytic Astrocytoma of the Fourth Ventricle." **Pediatr Neurol 21**: 754-756, 1999.
5. **Sandberg DI**, Bilsky MH, Souweidane MM, Bzdil J, Gutin PH. "Ommaya Reservoirs for the Treatment of Leptomeningeal Metastases. **Neurosurgery 47**: 49-55, 2000.
6. Souweidane M, Sandberg D, Bilsky M, Gutin P. "Endoscopic Biopsy of Tumors of the Third Ventricle." Pediatr Neurosurg 33: 132-137, 2000.
7. Bilsky MH, Schefler AC, Sandberg DI, Dunkel IJ, Rosenblum M. "Sclerosing Epitheliod Fibrosarcomas Involving the Neuraxis: Report of Three Cases." Neurosurgery 47: 956-960, 2000.
8. Sandberg DI, Edgar MA, Resch L, Rutka JT, Becker LE, Souweidane MM. "MIB-1 Staining Index of Pediatric Meningiomas." Neurosurgery 48: 590-597, 2001.
9. Sandberg DI, Lamberti-Pasculli M, Drake JM, Humphreys RP, Rutka JT. "Spontaneous Intraparenchymal Hemorrhage in Full-term Neonates." Neurosurgery 48: 1042-1049, 2001.
10. Sandberg DI, Edgar MA, Souweidane MM. "Convection-Enhanced Delivery into the Rat Brain Stem. " J Neurosurg 96: 885-891, 2002.
11. Sandberg DI, Edgar MA, Souweidane MM. "Effect of Hyperosmolar Mannitol on Convection-Enhanced Delivery into the Rat Brain Stem." J Neuro-Oncology 58: 187-192, 2002.
12. Occhiogrosso G, Edgar MA, Sandberg DI, Souweidane MM. "Prolonged Convection-Enhanced Delivery into the Rat Brainstem." Neurosurgery 52: 388-394, 2003.
13. Sandberg DI, Bilsky MH, Kushner BH, Souweidane MM, Kramer KK, Laquaglia MP, Panageas KS, Cheung NK-V. "Treatment of Spinal Involvement in Neuroblastoma Patients." Pediatric Neurosurgery 39: 291-298, 2003.
14. Sandberg DI, Ragheb J, Dunoyer D, Bhatia S, Olavarria G, Morrison G. “Surgical Outcomes and Seizure Control Rates After Resection of Dysembryoplastic Neuroepithelial Tumors.” Neurosurg Focus 18 (6a): E5, 2005.
15. Sandberg DI, McComb JG, Krieger MD. “Craniotomy for Fenestration of Multiloculated Hydrocephalus in Pediatric Patients.” Neurosurgery 57 (1 Suppl.):100-106, 2005.
16. Sandberg DI, McComb JG, Krieger MD. “Chemical Analysis of Fluid Obtained From Intracranial Arachnoid Cysts in Pediatric Patients.” J Neurosurg (5 Suppl Pediatrics) 103: 427-432, 2005.
17. Nimmagadda A, Sandberg DI, Ragheb J. “Spontaneous Involution of a Large Pineal Region Hemorrhagic Cyst in an Infant.” J Neurosurg (4 Suppl Pediatrics) 104: 275-278, 2006.
18. Trombly R, Sandberg DI, Wolfe SA, Ragheb J. “High-flow Orbital Arteriovenous Malformation in a child: case report and review of current management options.” J Craniofacial Surgery 17(4): 779-782, 2006.
19. Sandberg DI, Navarro R, Blanch J, Ragheb J. “Anomalous Venous Drainage Preventing Safe Posterior Fossa Decompression in Patients with Chiari Malformation Type I and Multisutural Craniosynostosis.” J Neurosurg (4 Suppl Pediatrics) 106: 490-494, 2007.
20. Benglis DM, Sandberg DI. “Acute Neurological Deficit After Minor Trauma in an Infant With Achondroplasia and Cervicomendullary Compression.” J Neurosurg ( 2 Suppl Pediatrics) 107: 152-155, 2007.
21. Sandberg DI. “Endoscopic Management of Hydrocephalus in Pediatric Patients: A Review of Indications, Techniques, and Outcomes.” J Child Neurology 23(5): 550-560, 2008.
22. Wykoff CC, Lam BL, Brathwaite CD, Biegel JA, McKeown CA, Rosenblum MK, Allewelt HB, Sandberg DI. “Atypical Teratoid/Rhabdoid Tumor Arising from the Third Cranial Nerve.” J Neuro-Ophthalmology, 28: 207-211, 2008.
23. Berry C, Sandberg DI, Hoh DJ, Krieger MD, McComb JG. “Use of Cranial Fixation Pins in Pediatric Neurosurgery." Neurosurgery 62: 913-919, 2008.
24. Crandall KM, Pacheco-Jacome EP, Sandberg DI. “Delayed Presentation and Conservative Management of an Odontoid Basilar Synchondrosis Fracture in a Child.” J Neurosurg Pediatrics 1: 402-405, 2008.
25. Sandberg DI, Crandall KM, Petito CK, Padgett KR, Landrum J, Babino D, He D, Solano J, Gonzalez-Brito M, Kuluz JW. “Chemotherapy Administration Directly into the Fourth Ventricle in a New Piglet Model.” J Neurosurg Pediatrics 1: 373-380, 2008.
26. Elhammady MSA, Benglis DM, Bhatia S, Sandberg DI, Ragheb J. “Ventriculoatrial Shunt Catheter Displacement in a Child with Partial Anomalous Pulmonary Venous Return.” J Neurosurg Pediatrics 2:68-70, 2008.
27. Bhatia S, Ragheb J, Johnson M, Oh S, Sandberg DI, Lin WC. “The Role of Optical Spectroscopy in Epilepsy Surgery in Children.” Neurosurgery Focus 25(3):E24, 2008.
28. Sandberg DI, Heros RC. “Influence of Protein, Red Blood Cell Count, and Surgical Site on Shunt Performance Following Aneurysmal Subarachnoid Hemorrhage.” J Neurosurg 109 (6): 998-999, 2008.
29. Lin WC, Sandberg DI, Bhatia S, Johnson M, Morrison G, Ragheb J. “Optical Spectroscopy for In-vitro Differentiation of Pediatric Neoplastic and Epileptogenic Brain Lesions.” J Biomed Opt 14(1): 014028, 2009.
30. Covington DB, Rosenblum MK, Brathwaite CD, Sandberg DI. “Angiocentric Glioma-like Tumor of the Midbrain.” Pediatric Neurosurgery 45: 229-433, 2009.

31. Lin WC, Sandberg DI, Bhatia S, Johnson M, Morrison G, Ragheb J. “Optical

Spectroscopy for In-vitro Differentiation of Pediatric Neoplastic and

Epileptogenic Brain Lesions.” J Biomed Opt 14(1): 014028, 2009.

32. Sandberg DI, Crandall KM, Koru-Sengul T, Padgett KR, Landrum J, Babino D,

Petito CK, Solano J, Gonzalez-Brito M, Kuluz JW. “Pharmacokinetic Analysis of

Etoposide Distribution after Administation Directly into the Fourth Ventricle in a Piglet Model.” J Neurooncol 97 (1): 25-32, 2010.

33. Ahmad F, Sandberg DI. “Endoscopic Management of Intraventricular Brain

Tumors in Pediatric Patients: A Review of Indications, Techniques, and

Outcomes.” J Child Neurol 25(3): 359-367, 2010.

34. Johnson J, Ragheb J, Garg R, Patten W, Sandberg DI, Bhatia S. “Neurogenic

Stunned Myocardium After Acute Hydrocephalus.” J Neurosurg Pediatrics 5(5): 428-33, 2010.

35. Zoeller GK, Brathwaite CD, Sandberg DI. “Malignant Transformation of an

Optic Pathway Glioma Without Prior Radiation Therapy.” J Neurosurg Pediatrics 5(5): 507-510, 2010

36. Sandberg DI, Solano J, Petito CK, Mian A, Mou C, Koru-Sengul T, Gonzalez-

Brito M, Padgett KR, Luqman A, Buitrago JC, Alam F, Wilkerson JR, Crandall KM, Kuluz JM. “Safety and Pharmacokinetic Analysis of Methotrexate Administered Directly into the Fourth Ventricle in a Piglet Model.” J Neurooncol 100:397-406, 2010.

37. Benglis Jr. D, Covington D, Bhatia R, Bhatia S, Elhammady MS, Ragheb J,

Morrison G, Sandberg DI. “Outcomes in Pediatric Patients with Chiari Malfomation Type I Followed Up Without Surgery.” J Neurosurg Pediatrics 7:375-379, 2011.

38. Sandberg DI, Peet MM, Johnson MD, Cole P, Koru-Sengul T, Luqman AW.

"Chemotherapy administration directly into the fourth ventricle in a nonhuman primate model." J Neurosurg Pediatrics 9: 530-541, 2012. PMID:22546032

39. Sandberg DI, Chamiraju P, Zoeller G, Bhatia S, Ragheb J. “Endoscopic

Choroid Plexus Coagulation in Intnts with Hydranencephaly or Hydrocephalus with a Minimal Cortical Mantle.” Pediatric Neurosurgery, 48: 6-12, 2012.

40. Ahmad F, Rosenblum MK, Chamyan G, Sandberg DI. “Infiltrative brainstem

and cerebellar neurocytoma.” J Neurosurg Pediatrics 2012, epub ahead of print.

41. Mazur LJ, Khatua S, Sandberg DI. Unilateral amaurosis in a teenager with

spina bifida and a ventriculoperitoneal shunt. Consultant for Pediatricians: 424-6, 2013.

42. Esquenazi Y, Sandberg DI, Rekate HL. "Successful treatment of hyperphagia by

resection of a hypothalamic hamartoma." J Neurosurg Pediatrics 11:630-634,

2013.

43. De Angulo G, Nair S, Lee V, Khatib Z, Ragheb J, Sandberg DI. “Nonoperative

management of solitary eosinophilic granulomas of the calvaria.” J Neurosurg Pediatrics 12 (1):1-5, 2013.

44. Chamiraju P, Bhatia S, Sandberg DI, Ragheb J. “Endoscopic third

ventriculostomy and choroid plexus cauterization in posthemorrhagic hydrocephalus of prematurity. J Neurosurg Pediatrics 13 (4):433-439, 2014.

45. Luna B, Bhatia S, Yoo C, Felty Q, Sandberg DI, Duchowny M, Khatib Z, Miller I,

Ragheb J, Prasanna J, Roy D. “Bayesian Network and Mechanistic Hierarchical Structure Modeling of Increased likelihood of Developing Intractable Childhood Epilepsy from the Combined Effect of mtDNA Variants, Oxidative Damage, and Copy Number.” J Mol Neurosci 54 (4): 752-766, 2014.

46. Chance A, Sandberg DI. “Hydrocephalus in patients with closed neural tube

defects.” Childs Nerv Syst 3(2):; 329-332, 2015.

47. Cykowski MD, Hicks J, Sandberg DI, Olar A, Bridge JA, Greipp PT, Navarro P,

Kolodziej S, Bhattacharjee MB. “Brain Metastasis of Crystal-Deficient, CD68-Positive Alveolar Soft Part Sarcoma: Ultrastructural Features and Differential Diagnosis. Ultrastruc Pathol 39 (1), 69-7, 2015.

48.Luna B, Bhatia S, Yoo C, Felty Q, Sandberg DI, Duchowny M, Khatib Z, Miller I,

Ragheb J, Prassana J, Roy D. “Proteomic and Mitochondrial Genomic Analyses of Pediatric Brain Tumors. Molec Neurobiol 52 (3): 1341-6, 2015,.

49. Arrey EN, Kerr ML, Fletcher S, Cox CS, Sandberg DI. “Linear Non-Displaced

Skull Fractures in Children: Who should be observed or admitted?” J Neurosurg Pediatrics, 4:1-6, 2015.

50. Sandberg DI, Rytting M, Zaky W, Kerr M, Ketonen L, Kundu U, Moore BD, Yang

G, Hou P, Sitton C, Cooper LJ, Gopalakrishnan V, Lee DA, Thall PF, Khatua S.

“Methotrexate Administration Directly into the Fourth Ventricle in Children with

Malignant Fourth Ventricle Brain Tumors: A Pilot Clinical Trial.” J Neurooncol, 125(1): 133-141, 2015.

51. Sandberg DI. “Endoscopic Resection of Intraventricular Brain Tumors in

Children.” World Neurosurgery 89:708-9, 2016.

52. Sandberg DI, Kerr ML. “Ventricular Access Device Placement in the Fourth

Ventricle to Treat Malignant Fourth Ventricle Brain Tumors: Technical Note.”

Child’s Nerv Syst. 32 (4): 703-7, 2016

53. Fu KJ, Barr RM, Shah MN, Fletcher SA, Sandberg DI, Teichgraeber JF,

Greives MR. “An Outcomes Comparison Between Autologous and Alloplastic

Cranioplasty in the Pediatric Population.” J Craniofac Surg 27 (3):593-597,

2016.

54. Srihawan C, Castelblanco RL, Salazar L, Wootton SJ, Aguilera E, Ostrosky-

Zeichner L, Sandberg DI, Choi H, Lee K, Kitagawa R, Tandon N, Hasburn R.

“Clinical Characteristics and Predictors of Adverse Outcome in Adult and Pediatric Patients with Healthcare-Associated Ventriculitis and Meningitis.” Open Forum Infec Dis 13 (3): 77, 2016.

55. Austin MT, Hamilton E, Zebda D, Nguyen H, Eberth JM, Chang Y, Elting LS,

Sandberg DI. “Health Disparities and Impact on Outcomes in Children with

Primary Central Nervous System Solid Tumors.” J Neurosurg Pediatr 19:1-9,

2016.

56. Gu JL, Johnson A, Kerr M, Moise KJ, Bebbington MW, Pedroza C, Sandberg

DI. “Correlating Prenatal Imaging Findings of Fetal Ventriculomegaly with the

Need for Surgical Intervention in the First 3 Months After Birth.” Pediatr

Neurosurg; 52 (1): 20-25, 2017.

57. Martinez CI, Fletcher S, Shah MN, Kerr ML, Sandberg DI. “Survey of

Techniques Utilized to Access Ventricular Shunts and Reservoirs.” Pediatr

Neurosurg, 52 (4): 250-256, 2017

58. Patel RP, Sitton CW, Ketonen LM, Hou P, Johnson JM, Romo S, Fletcher S,

Shah MN, Kerr M, Zaky W, Rytting ME, Khatua S, Sandberg DI. “Phase-

Contrast Cerebrospinal Fluid Magnetic Resonance Imaging in Qualitative

Evaluation of Patency of CSF Flow Pathways Prior to Infusion of

Chemotherapeutic and Other Agents into the Fourth Ventricle.” Childs Nerv

Syst 34 (3): 481-486, 2018.

59. Herbert JP, Venkataraman SS, Turkmani AH, Zhu L, Kerr ML, Patel RP, Ugalde

IT, Fletcher SA, Sandberg DI, Cox CS Jr., Kitagawa RS, Day AL, Shah MN.

“Pediatric Blunt Cerebrovascular Injury: the McGovern Screening Score.” J

Neurosurg Pediatr. 16: 1-11, 2018.

60. Alexiades NG, Ahn ES, Blount JP, Brockmeyer DL, Browd SR, Heuer GG,

Hankinson TC, Iskandar BJ, Jea A, Krieger MD, Leonard JR, Limbrick DD Jr,

Maher CO, Proctor MR, Sandberg DI, Wellons JC 3rd, Shao B, Feldstein NA,

Anderson RCE. “Development of Best Practices to Minimize Wound

Complications After Complex Tethered Spinal Cord Surgery: A Modified Delphi Study.” J Neurosurg Pediatr.22 (6): 701-709, 2018.

61. Brewer JW Jr, Cox CS, Fletcher SA, Shah MN, Sandberg DI. “Analysis of

Pediatric Gunshot Wounds in Houston, Texas: A Social Perspective.” J

Pediatr Surg, 54 (4):783-791, 2019. PMID: 30502006.

62. Sandberg DI, Yu B, Patel R, Hagan J, Miesner E, Sabin J, Smith S, Fletcher S, Shah MN, Sirianni RW, Taylor MD. “Infusion of 5-Azacytidine (5-AZA) into the fourth ventricle or tumor resection cavity in children with recurrent posterior fossa ependymoma: a pilot clinical trial.” J Neurooncol, 141 (2)” 448-457, 2019. PMID:30460634

63. Kennis BA, Michel KA, Brugmann WB, Laureano A, Tao RH, Somanchi SS,

Einstein SA, Bravo-Alegria JB, Maegawa S, Wabha A, Kiany S, Gordon N, Silla

L, Schellingerhout D, Khatua S, Zaky W, Sandberg D, Cooper L, Lee DA,

Bankson JA, Gopalakrishnan V. “Monitoring of Intracerebellarly-Administered

Natural Killer Cells with Fluorine-19 MRI. J Neurooncol, 142 (3): 395-407,

2019.

64. Householder KT, Dharmaraj S, Sandberg DI, Weschler-Reya RJ, Sirianni RW.

“Fate of nanoparticles in the central nervous system after intrathecal injection in healthy mice.” Sci Rep 9 (1) 12587, 2019.

65. Melin AA, Moffitt J, Hopkins DC, Shah MN, Sandberg DI, Teichgraeber JF,

Greives MR. “Is Less Actually More? An Evaluation of Surgical Outcomes

Between Endocopic Suturectomy and Open Cranial Vault Remodeling for

Craniosynostosis.” J Craniofac Surg, 31 (4): 924-926, 2020.

PMID:32049919

66. Khatua S, Cooper LJN, Sandberg DI, Ketonen L, Johnson JM, Rytting ME, Liu

DD, Meador H, Trikha P, Nakkula RJ, Behbehani GK, Ragoonanan D, Gupta S,

Kotrotsou A, Idris T, Shpall EJ, Rezvani K, Colen R, Zaky W, Lee DA,

Gopalakrishnan V. “Phase I Study of intraventricular infusions of autologous

ex-vivo expanded NK cells in children with recurrent medulloblastoma and

ependymoma.” Neuro Oncol 222 (8): 1214-1225, 2020. PMID: 32152626.

67. Fowler MJ, Cotter JD, Knight BE, Sevick-Muraca EM, Sandberg DI, Sirianni

RW. “Intrathecal drug delivery in the era of nanomedicine.” Adv Drug Deliv

Rev., (165-166):77-95, 2020. PMID:32142739.

68.Trimble DJ, Parker SL, Zhu L, Cox CS, Kitagawa RS, Fletcher SA, **Sandberg**

**DI**, Shah MN. “Outcomes and prognostic factors of pediatric patients with a

Glasgow Coma Score of 3 after blunt head trauma.” Childs Nerv Syst. 2020

36 (11): 2657-2665, PMID: 32372363.

69. Iqbal F, Ballester LY, Akash N, Sandberg DI, Bhattacharjee MB. “5 Year-Old

with worsening seizure disorder.” Brain Pathol 30 (3): 717-718, 2020. PMID:

32385958.

70. Sandberg DI, Kharas N, Yu B, Janssen CF, Trimble A, Ballester LY, Patel R,

Mohammad AS, Elmquist WF, Sirianni RW. “High-dose MTX110 (soluble

panobinostat) safely administered into the fourth ventricle in a nonhuman

primate model. J Neurosurg Pediatr 1:1-9, 2020.

PMID: 32357333.

71. Lopez-Rivera V, Sheriff FG, Sandberg DI, Blackburn S, Dannenbaum M,

Sheth SA, Day AL, Chen PR. “De novo thalamic arteriovenous malformation in

A boy with a brainstem cavernous malformation.: J Clin Neurosci 76:226-228, 2020. PMID: 32331948.

72. Madsen JR, Boyle TP, Neuman MI, Park E, Tamber MS, Hickey RW, Heuer GG, Zorc JJ, Leonard JR, Leonard JC, Keating R, Chamberlain JM, Frim DM,

Zakrzewski P, Klinge P, Merck LH, Piatt J, Bennett JE, **Sandberg DI**, Boop FA,

Hameed MQ. “Diagnostic Accuracy of Non-Invasive Thermal Evaluation of Ventriculoperitoneal Shunt Flow in Shunt Malfunction: A Prospective, Multi-

Site, Operator-Blinded Study.” **Neurosurgery** 87 (5): 939-948, 2020. PMID:32459841

73. Mullarkey MP, Nehme G, Modiuddin S, Ballester LY, Bhattacharjee MB,

Trivedi D, Shah MN, Fuller GN, Zaky W, **Sandberg DI**. “Posttreatment

Maturation of Medulloblastoma into Gangliocytoma: Report of 2 Cases.”

**Pediatr Neurosurg** 3:1-10, 2020. PMID:32882694.

74. Fotso C, **Sandberg DI**. “Spontaneous Resolution of Large Subdural

Hematoma with Midline Shift: A Case Report.” **Childs Nerv Syst**, 2021,

37:703-705. PMID:32561984.

75. Nguyen PD, Belal A, Washington GN, Greives MR, **Sandberg DI**, Fletcher SA,

Shah MN. “Distraction Osteogenesis with Temporal Bone Remodeling for

Unicoronal Craniosynostosis.” **Neurosurgical Focus:Video**, April 2021, V15.

76. Zima LA, Belal Am, **Sandberg DI**. “Choroid Plexus cauterization to treat

inadequate abdominal cerebrospinal fluid absorption: case report.” **Childs**

**Nerv Syst**, 2022, 38:817-820. PMID: 34309719.

77. Watkins MW, Shah EG, Funke ME, Garcia-Torodo S, Shah MN, Tandon N,

Maestu F, Laohathai C, **Sandberg DI**, Lankford J, Thompson S, Mosher J,

Von Allmen G. “Indications for Inpatient Magnetoencephalogaphy in Children: An Institution’s Experience.” **Front Hum Neurosci**, 2021 15:667777. PMID: 34149382.

78. Majd NK, Mastall M, Lin H, Dibaj SS, Kess KR, Yuan Y, Garcia MM, Fuller

GN, Alfaro KD, Gule-Monroe MK, Huse JT, Khatua S, Rao G, **Sandberg DI,**

Wefel JS, Yeboa DN, Paulino AC, McGovern SL, Zaky W, Mahajan A, Suki D,

Weathers SP, Harriso RA, De Groo JF, Pudavali VK, Penas-Prado M.

“Clinical Characterization of Adult Medulloblastoma and the Effect of First-Line

Therapies on Outcome; The MD Anderson Cancer Center Experience.”

**Neurooncol Adv** 2021, 3(1) PMID: 34377987

79. Fairchild B, Cepeda A Jr, Maiorino e, Shah MN, **Sandberg DI**, Fletcher SA,

Nguyen PD, Greives M. “Back to the beginning: An Algorithmic Approach to

Neonatal Myelomeningocele Repair.” **Ann Plast Surg** 2022, 89(1): 82-88,

PMID: 34864746

80. Steinbok P, Cheong A, Dix DB, Bhatia S, Handler MH, Limbrick DD Jr, Niazi

T, Price AV, Ragheb J, Souweidane M, Tamber MS, **Sandberg DI**.

“Nonoperative Management of Childhood Calvarial Langerhans-Cell

Histiocytosis.” **N Engl J Med** 2022, 386 (26): 2532-2534. PMID 35767446.

81. Hoffman C, Hartl R, Shlobin NA, Tshimbombu TN, Albabaa SK, Haglund

MM, Rubiano AM, Dewan MC, Stippler M, Mahmud MR, Wohns R, Shabani

HK, Rocque B, **Sandberg DI**, Lafuente J, Dempsey R, Rosseau G. “Future

Directions for Global Clinical Neurosurgical Training: Challenges and

Opportunities.” **World Neurosurgery** 2022, e404-e418. PMID:35868506

82. Alexiades NG, Shao B, Ahn ES, Blount JP, Brockmeyer DL, Hankinson TC,

Nevsick CL, **Sandberg DI**, Heuer GG, Saiman L, Feldstein NA, Anderson

RCE. “High prevalence of gram-negative and multiorganism surgical site

Infection after pediatric complex tethered spinal cord surgery: a multicenter

Study. **J Neurosurg Pediatr** 2022, Epub ahead of print. PMID: 35901675

83. Rituraj Upadhyay,  Swapnil Khose,  Halyna Pokhylevych,  Arnold

Paulino, Mary Frances McAleer,  Amol Ghia,  Jing Li,  Debra Nana

Yeboa,  Monica Loghin, Rebecca Harrison,  Barbara O’Brien,  Carlos

Kamiya-Matsuoka,  John De Groot, Vinay K Puduvalli,  Claudio

Tatsui,  Christopher Alvarez-Breckenridge,  Sujit Prabhu, Larry

Rhines,  Wafik Zaky,  Frank Lin,  Jeffery S Weinberg,  Gregory

Fuller, **David I Sandberg,** Jason Michael Johnson,  Susan L McGovern.

“Patterns of failure after radiation therapy in primary spinal high-grade

gliomas: A single institution analysis.” **Neuro-Oncology Advances** 2022.

Epub ahead of print. PMID:36128585

84. Pokhylevych H, Khose S, Gule-Monroe MK, Chen MM, Fuller G, Gruschkus

SK, Sadighi Z, Zaky W, **Sandberg DI**, McGovern SL, Johnson JM.

“Contrast Enhancement Patterns in Pediatric Glioblastomas. **J Comput**

**Assist Tomogr** 2022. 47 (1): 115-120. PMID:36112052

85. Alexiades NG, Shao B, Ahn ES, Blount JP, Brockmeyer DL, Hankinson TC,

Nesvick CL, **Sandberg DI**, Heuer GG, Saiman L, Feldstein NA, Anderson

RCE. “High Prevalence of Gram-Negative and Multiorganism Surgical Site

Infections After Pediatric Complex Tethered Cord Surgery: A Multicenter

Study. **J Neurosurg Pediatr** 2022; 22:1-7. PMID: 35901675

86. Gregory TA, Mastall M, Lin H, Hess KR, Yuan Y, Martin-Bejarano Garcia M,

Fuller GN, Alfaro KD, Gule-Monroe MK, Huse JT, Khatua S, Rao G, **Sandberg DI**, Wefel JS, Yeboa DN, Paulino AC, McGovern SL, Zaky W, Mahajan A, Suki D, Weathers SP, Harrison RA, de Groot JF, Puduvalli VK, Penas-Prado M, Majd NK. “Characterization of Recurrence patterns and

Outcomes of Medulloblastoma in Adults: the University of Texas MD Anderson Cancer Center Experience. **Neurooncol Adv** 2023; 5 (1): eCollection. PMID: 37114244

87. Fowler MJ, Riley CO, Tomasson E, Mehta S, Grande-Allen J, Ballester L,

**Sandberg DI**, Janssen C, Sirianni RW. “Engineering subarachnoid

Trabeculae with electrospun poly(caprolactone) (PCL) scaffolds to study

Leptomeningeal metastasis in medulloblastoma.” **Biomater Adv** 2023;

Online ahead of print. OMID:37918168

Chapters:

1. Sandberg DI, McComb JG, Krieger MD. “Compartmentalized Hydrocephalus: Craniotomy for Fenestration.” Controversies in Pediatric Neurosurgery. Thieme Medical Publishers, New York, 2010.
2. **Sandberg DI**. “Depressed Skull Fractures.” **Fundamentals of Operative Techniques in Neurosurgery.** 2010.
3. **Sandberg DI**. “Arachnoid Cysts.” **Fundamentals of Operative Techniques in Neurosurgery.** 2010
4. Kunkle B, **Sandberg D**, Jayakar P, Felty Q, Roy D. “Gene-Environment Interaction and Susceptibility to Pediatric Brain Tumors.” **Environmental Factors, Genes, and the Development of Human Cancers.** Springer Science + Business Media, 2010.
5. **Sandberg DI**, Ahmad F. “Pediatric Intraventricular Brain Tumors: Endoscopic Neurosurgical Techniques. *Teratoid/Rhabdoid, Brain Tumors, and Glioma***, Pediatric Cancer 2.** Springer Science + Business Media B.V., 2011.
6. **Sandberg, DI**: “Cerebellar Astrocytoma.” **ISPN Guide to Pediatric Neurosurgery** (online, 2012).
7. **Sandberg, DI**: “Medulloblastoma.” **ISPN Guide to Pediatric Neurosurgery** (online, 2012).

8. Esquenazi Y, **Sandberg DI**. “Complications Related to Endoscopic Fenestration

in Loculated Hydrocephalus.” **Complications of CSF Shunting in**

**Hydrocephalus.**  Springer, 2015.

9. Katzen SL, Fletcher SA, Shah MN, **Sandberg DI**. “Pediatric Neurosurgery.” **The**

**Neuro ICU Book, 2nd edition**. McGraw Hill, 2015.

10. Lewis CT, Arevalo O, Patel RP, **Sandberg DI**. Mega Cisterna Magna. In Incidental Findings in Neuroimaging and Their Management: A Guide for Radiologists, Neurosurgeons, and Neurologists. Thieme Publishing, 2020.

11. Lewis CT, Arevalo O, Patel RP, **Sandberg DI**. Benign Enlargement of Subarachnoid Spaces. In Incidental Findings in Neuroimaging and Their Management: A Guide for Radiologists, Neurosurgeons, and Neurologists. Thieme Publishing, 2020.

12. Lewis CT, Arevalo O, Patel RP, **Sandberg DI**. Filum Terminale Lipoma. In Incidental Findings in Neuroimaging and Their Management: A Guide for Radiologists, Neurosurgeons, and Neurologists. Thieme Publishing, 2020.

13. Lewis CT, Arevalo O, Patel RP, **Sandberg DI**. Ventriculus Terminalis. In Incidental Findings in Neuroimaging and Their Management: A Guide for Radiologists, Neurosurgeons, and Neurologists. Thieme Publishing, 2020.

14. Lewis CT, Arevalo O, Patel RP, **Sandberg DI**. Prominent Central Canal. In Incidental Findings in Neuroimaging and Their Management: A Guide for Radiologists, Neurosurgeons, and Neurologists. Thieme Publishing, 2020.

15. Lewis CT, Arevalo O, Patel RP, **Sandberg DI**. Low-Lying Conus. In Incidental Findings in Neuroimaging and Their Management: A Guide for Radiologists, Neurosurgeons, and Neurologists. Thieme Publishing, 2020.

16. Shah MN and **Sandberg DI.** Public Sevice in Neurosurgery. In Surviving

Neurosurgery: Vignettes of Resilience. Springer, 2021

**Other Professional Communications:**

**Presentations:**

1. Hospital Escuela; Tegucigalpa, Honduras. “Convection-Enhanced Delivery into the Brain Stem: An Animal Model.” May, 2001
2. Hospital Escuela; Tegucigalpa, Honduras. “Neurosurgical Residency Training in the United States.” May, 2001.
3. Hospital Escuela; Tegucigalpa, Honduras.”Management of Open and Closed Neural Tube Defects.” May, 2002.
4. Hospital Escuela; Tegucigalpa, Honduras. “Contemporary Management of Hydrocephalus.” May, 2002.
5. Symposium on Pediatric Neurosurgery, New York Presbyterian Hospital; New York, NY. “Spinal Dysraphism: Definitions, Diagnosis, and Management." January, 2003.
6. Hospital Escuela; Tegucigalpa, Honduras. “Endoscopic Management of Brain Tumors.” August, 2004.
7. Hospital Escuela; Tegucigalpa, Honduras. “Endoscopic Management of Hydrocephalus.” August, 2004.
8. Lima, Peru; Peruvian Neurosurgical Association. “Endoscopic Management of Hydrocephalus.” August, 2004.
9. Pediatric Neurosurgery Update, Miami Children’s Hospital; Miami, FL. “Spina Bifida Occulta – What’s that on my Baby’s Back?” November, 2004.
10. Grand Rounds, Department of Pediatrics, University of Miami; Miami, FL. “Contemporary Management of Hydrocephalus” December, 2004.
11. Grand Rounds, Miami Children’s Hospital; Miami, FL. “Contemporary Management of Pediatric Brain Tumors.” January, 2005.
12. Grand Rounds, Department of Pediatrics, Plantation General Hospital; Plantation, FL. “Contemporary Management of Pediatric Brain Tumors.” June, 2005.
13. Hospital Escuela; Tegucigalpa, Honduras. “Contemporary Management of Pediatric Brain Tumors.” August, 2005.
14. Eleventh Annual Brain Injury Symposium; Wyndham Miami Beach Resort, Miami Beach, FL. “Evaluation and Management of Pediatric Head Trauma.” October, 2005.
15. Florida Cleft Palate and Craniofacial (FCPA) Winter Symposium. “The Child with a Craniofacial Condition.” Coral Gables, FL. January, 2007.
16. XXVIII Annual Child Neurology Postgraduate Course, Miami Children’s Hospital, Miami, FL. “Advances in Neuroendoscopy.” May, 2007.
17. Seventh Hubert L. Rosomoff Research Day, University of Miami School of Medicine, Department of Neurological Surgery. “Direct Administration of Chemotherapy into the Fourth Ventricle: a Novel Therapeutic Approach for the Treatment of Malignant Posterior Fossa Tumors of Childhood." June, 2007.
18. Grand Rounds, Department of Pediatrics, University of Miami; Miami, FL. “Spina Bifida Occulta – What’s that on my Baby’s Back?” July, 2007.
19. XII Pan-American Congress of Neurology, Santo Domingo, Dominican Republic. “Manejo Endoscópico de la Hidrocefalia: Una Visión Práctica.” October, 2007.
20. Pediatric Brain and Spinal Cord Injury Conference, Coconut Grove, Florida. “Advances in Neuroendoscopy to Treat Brain Tumors in Children.” November, 2007.
21. AANS/CNS Pediatric Section Meeting, Nurses Seminar, Miami, Florida. “Controversies in the Management of Chiari Malformations.” November, 2007.
22. AANS/CNS Pediatric Section Meeting, State of the Art Review: Pediatric Neurosurgery Course with Spanish Translation. "Management of Posterior Fossa Tumors in Children." December, 2007.
23. Visiting Professor, Johns Hopkins University School of Medicine, Department of Neurosurgery. “Direct Administration of Chemotherapy into the Fourth Ventricle: A Novel Therapeutic Approach for the Treatment of Malignant Posterior Fossa Tumors of Childhood.” March 6, 2008.
24. AANS, Breakfast Seminar on International Opportunities in Neurosurgery. “Neurosurgery in Developing Countries: A Collection of Experiences.” April 28, 2008.
25. XXVIX Annual Child Neurology Postgraduate Course, Miami Children’s Hospital, Miami, FL. “Controversies in the Management of Chiari Malformations.: May 1, 2008.
26. Assocación de Cirugia Neurológica de Guatemala. “Manejo Endoscópico de la Hidrocefalia.” Guatemala City, Guatemala. January 15, 2009
27. Florida Brain Tumor Association Annual Brain Tumor Conference. Ft. Lauderdale, FL. “Minimally Invasive Neuroendoscopy in the Management of Pediatric Brain Tumors.” January 24, 2009.
28. Miami Children’s Hospital Postgraduate Course: Perspectives in Pediatrics. Miami, FL. “Advances in the Management of Brain Tumors.” March 9, 2009.
29. AANS, Breakfast Seminar on International Opportunities in Neurosurgery. San Diego, CA. “Neurosurgery in Developing Countries: A Collection of Experiences.” May 5, 2009.
30. XXX Annual Child Neurology, Neurosurgery, and Psychiatry Postgraduate Course, Miami Children’s Hospital, Miami, FL. “Management of Open and Closed Neural Tube Defects.” May, 2009.
31. Ninth Hubert L. Rosomoff Research Day, University of Miami Miller School of Medicine, Department of Neurological Surgery. “Pharmacokinetic Analysis of Etoposide Distribution After Administration Directly into the Fourth Ventricle in a Piglet Model. Miami, FL, May, 2009.
32. XIV Congreso Peruano de Neurocirugia. “Tratamiento Endoscopico de Hidrocefalia.” Lima, Peru, October, 2009.
33. XIV Congreso Peruano de Neurocirugia. “Tratamiento de Tumors de Fosa Posterior en Ninos.” Lima, Peru, October, 2009.
34. XIV Congreso Peruano de Neurocirugia. “Tratamiento de Tumors Intraventriculares con Neuroendoscopia.” Lima, Peru, October, 2009.
35. XIV Congreso Peruano de Neurocirugia. “Tratamiento Quirurgico de la Epilepsia.” Lima, Peru, October, 2009.
36. XIV Congreso Peruano de Neurocirugia. “Manejo de Pacientes Despues del Trauma Intracranial.” Lima, Peru, October, 2009.
37. XIV Congreso Peruano de Neurocirugia. “El Examen y Manejo de Pacientes con Problemas Neurologicas.” Lima, Peru, October, 2009..
38. Congress of Neurological Surgeons. Luncheon Seminar: “Surgical Management of Chiari and Syringomyelia.” New Orleans, October, 2009.
39. 7th Annual Pediatric Brain and Spinal Cord Injury Conference. “Neurosurgical Challenges in Pediatric TBI and SCI.” Miami, FL, October, 2009.
40. VIII Congreso Annual de la Sociedad Iberoamericana de Diagnóstico y Tratamiento Prenatal (SIADTP). “Ventriculomegaly and Arachnoid Cyst: Pediatric Neurosurgery Perspective.” Miami, FL December, 2009.
41. Care of the Sick Newborn Conference, Jackson Memorial Hospital. “Management of Hydrocephalus in Neonates.” Miami, FL; April, 2010.
42. American Association of Neurological Surgeons, Breakfast Seminar: “Current and Future Treatments for Hydrocephalus.” Philadelphia, PA; May, 2010
43. XIII Curso de Educacion Continua en Neurocirugia Pediatrica; Federacion Latinoamerica de Neurocirugia. “Manejo de los Tumores de la Región Pineal.” San Jose, Costa Rica, June, 2010.
44. XIII Curso de Educacion Continua en Neurocirugia Pediatrica; Federacion Latinoamerica de Neurocirugia. “Manejo de los Meduloblastomas.” San Jose, Costa Rica, June, 2010.
45. XIII Curso de Educacion Continua en Neurocirugia Pediatrica; Federacion Latinoamerica de Neurocirugia. “Craneosinostosis: Trigonocefalia.” San Jose, Costa Rica, June, 2010.
46. XIII Curso de Educacion Continua en Neurocirugia Pediatrica; Federacion Latinoamerica de Neurocirugia. “Tratamiento Endoscópico de los Tumores Intraventriculares.” San Jose, Costa Rica, June, 2010.
47. XIII Curso de Educacion Continua en Neurocirugia Pediatrica; Federacion Latinoamerica de Neurocirugia. “Hidrocefalia: Alternativas al Shunt Ventrículo-Peritoneal.” San Jose, Costa Rica, June, 2010
48. American Association of Neurological Surgeons, Breakfast Seminar: “Current and Future Treatments for Hydrocephalus.” Denver, CO; April, 2011
49. XXXII Annual Child Neurology, Neurosurgery, and Psychiatry Postgraduate Course, Miami Children’s Hospital. “Management of Neonatal Hydrocephalus.” Miami, FL; July, 2011.
50. Congress of Neurological Surgeons, Section on Pediatric Neurological Surgery. “Medulloblastoma: Literature Review.” Washington, DC; October, 2011.
51. American Association of Neurological Surgeon, Breakfast Seminar on Current and Future Treatments for Hydrocephalus. “Endoscopy: Role in Current and Future Treatment of Hydrocephalus.” Miami, FL; April, 2012.
52. Twelfth Hubert L. Rosomoff Research Day, University of Miami Miller School of Medicine, Department of Neurological Surgery. “Chemotherapy Administration Directly into the Fourth

Ventricle in Non-Human Primates." Miami, FL, May, 2012.

1. XVI Congreso Venezolano de Neurocirugia. "Tratamiento Endoscopico de los Tumores Intraventriculares." Valencia, Venezuela, May, 2012.
2. XVI Congreso Venezolano de Neurocirugia. "Tercer Ventriculostomia Endoscopica: Indicaciones, Tecnicas, y Resultados." Valencia, Venezuela, May, 2012.
3. XVI Congreso Venezolano de Neurocirugia. "Tumores de la Fosa Posterior: Como Hacerlo, Principios de Tecnica Quirurciga." Valencia, Venezuela, May, 2012.
4. Grand Rounds, The Woman’s Hospital of Texas. “Management of Neonatal Hydrocephalus.” Houston, TX, September 2012.
5. Grand Rounds, Department of Pediatrics, University of Texas-Houston Health Science Center. “Minimally Invasive Endoscopic Neurosurgery.” Houston, TX, September 2012.
6. Congress of Neurological Surgeons, Section on Pediatric Neurological Surgery. “Volunteer Opportunities in Pediatric Neurosurgery.” Chicago, IL, October 2012.
7. Conquer Chiari Research Conference. “Outcomes in Pediatric Chiari Patients Followed Without Surgery.” Chicago, IL, November 2012.
8. Grand Rounds, UT-Houston Department of Neurosurgery. “International Volunteer Opportunities in Neurosurgery.” Houston, Texas, January 2013.
9. First Annual Neuro ICU Symposium: Cutting Edge Management of Neurological and Neurosurgical Emergencies and Critical Care; University of Texas-Houston. “Modern Management of Hydrocephalus.” Houston, Texas, March, 2013.

62. Grand Rounds, UT-Houston Department of Pathology and Laboratory

Medicine. “Chemotherapy Administration Directly into the Fourth Ventricle:

From Animal Models to Human Clinical Trial.” Houston, Texas, April, 2013.

63. Houston Pediatric Society. “Modern Management of Hydrocephalus.”

Houston, Texas, April, 2013.

64. MIT Enterprise Forum. “Navigating in the Ventricles of the Brain: Making

Neurosurgery Safer and Minimally Invasive.” Houston, Texas, May 2013.

65. FLANC Pediatric Neurosurgery Course. “Concepts in Epilepsy Surgery.” Los

Mochis, Mexico (via video conference), June, 2013.

66. FLANC Pediatric Neurosurgery Course. “Management of Pineal Region

Tumors.” Los Mochis, Mexico (via video conference), June, 2013.

67. 1st Annual Combined Ventricular and Skull Base Endoscopy Course for

Neurosurgeons, Saint Louis University. “Endoscopic Biopsy/Resection of Intraventricular Brain Tumors.” St. Louis, Missouri, September, 2013.

68. Texas Pediatric Society Annual Meeting. “Modern Management of

Hydrocephalus in Children: An Update for Pediatricians.” Galveston, Texas,

September, 2013

69. Pediatric Neuro-Oncology Symposium, MD Anderson Cancer Center. "Local

Delivery of Chemotherapy into the Fourth Ventricle of the Brain: A Novel Treatment Modality for Malignant Posterior Fossa Brain Tumors." Houston, Texas, February 2014.

70. Second Annual Neuro ICU Symposium: Cutting Edge Management of

Neurological and Neurosurgical Emergencies and Critical Care; University of Texas-Houston. “Modern Management of Hydrocephalus – To Shunt or Not to Shunt.” Houston, Texas, March, 2014

71. American Association of Neurological Surgeons Annual Meeting. Practical

Clinic, Goodman Oral Board Review. “Pediatric Neurosurgery Cases for Oral Board Examination.” San Francisco, CA, April, 2014.

72. University of Texas MD Anderson Cancer Center, Institutional Grand

Rounds. “Chemotherapy Administration Directly into the Fourth Ventricle of the Brain: A Novel Means of Treating Malignant Fourth Ventricular Brain Tumors.” Houston, TX, July 2014.

73. 2st Annual Combined Ventricular and Skull Base Endoscopy Course for

Neurosurgeons, Saint Louis University. “Endoscopic Biopsy/Resection of

Intraventricular Brain Tumors.” St. Louis, Missouri, September, 2014.

74. Third Annual Neuro ICU Symposium: Cutting Edge Management of

Neurological and Neurosurgical Emergencies and Critical Care. “Pediatric Neurosurgery.” Houston, Texas, March, 2015.

75. Global Academic Programs Conference 2015: “Delivery of Chemotherapy

into the Fourth Ventricle of the Brain: A Novel Therapeutic Approach for Malignant Pediatric Brain Tumors.” Houston, Texas, April 2015.

76. XI Brazilian Congress of Pediatric Neurosurgery. “Local Delivery of

Chemotherapy and Other Agents into the Fourth Ventricle.” Belem, Brazil,

June, 2015.

77. XI Brazilian Congress of Pediatric Neurosurgery. “Pediatric Neurosurgery

Certification.” Belem, Brazil, June, 2015.

78. XI Brazilian Congress of Pediatric Neurosurgery. “Treatment of

Intraventricular Tumors.” Belem, Brazil, June, 2015.

79. Grand Rounds, Department of Pediatrics, The Woman’s Hospital of Texas.

“Modern Management of Hydrocephalus. Houston, TX, April, 2016.

80. IX Reunion Internacional de Neurocirugia Pediatrica. “Tratamiento

Quirúrgico de Mielomeningocele.” Veracruz, Mexico, May, 2016

81. IX Reunion Internacional de Neurocirugia Pediatrica. “Asociacion Entre

Malformacion de Chiari y Craneosinostosis.” Veracruz, Mexico, May, 2016

82. IX Reunion Internacional de Neurocirugia Pediatrica. “Entrega Local de

Quimioterapia y Otros Agentes Directamente en el Cuarto Ventrículo Para

Tratar Tumores Malignos Pediátricos.” Veracruz, Mexico, May, 2016

83. 8th Annual Symposium, SETRAC Regional Healthcare Preparedness

Coalition. “Emergency Care of Children with Head Injuries – The Pespective of a Pediatric Neurosurgeon. Galveston, Texas, October, 2016

84. Grand Rounds on the Green Neurosurgery Symposium. “Local Delivery of

Chemotherapy and Novel Agents Directly into the Fourth Ventricle of the

Brain to Treat Malignant Pediatric Brain tumors.” Sea Island, Georgia,

October, 2016.

85. Visiting Professor, LSU Department of Neurosurgery. “Local Delivery of

Chemotherapy and Novel Agents Directly into the Fourth Ventricle of the

Brain to treat Malignant Pediatric Brain Tumors.” New Orleans, LA, October,

2016.

86. Neuroscience Update in Pediatric Neuro-Oncology. “Direct Drug Delivery

into the Fourth Ventricle of the Brain to Treat Recurrent Malignant Posterior Fossa Tumors.” Houston, Texas, April, 2017.

87. Grand Rounds, Division of Pediatric, The University of Texas MD Anderson

Cancer Center. “Endoscopic Management of Brain Tumors in Children.”

Houston, Texas, May, 2017.

88. Global Academic Program, The University of Texas MD Anderson Cancer

Center. “Phase-Contrast Cine Cerebrospinal Fluid Flow Magnetic

Resonance Imaging (MRI) in Evaluating Distribution of Infused Agents from

The Fourth Ventricle to the Total Spine.” Houston, Texas, May, 2017.

89. Visiting Professor, Department of Neurosurgery, Weill Medical College of

Cornell University. “Local Delivery of Chemotherapy and Novel Agents

Directly into the Fourth Ventricle of the Brain to treat Malignant Pediatric

Brain Tumors.” New York, NY, May, 2017.

90. IX Congreso CentroAmericano de Neurocirugia. “Controversias en el

Manejo de la Malformacion Chiari I.” Guatemala City, Guatemala, May, 2017.

91. IX Congreso CentroAmericano de Neurocirugia. “Entrega Local de

Quimioterapia y Otros Agentes Directamente en el Cuarto Ventrículo Para Tratar Tumores Malignos Pediátricos.” Guatemala City, Guatemala, May, 2017.

92. Society of Neurological Surgeons. “Innovations in Pediatric Brain Tumor

Treatment.” Houston, TX, May, 2017.

93. Ian’s Friends Foundation WhatIFF Symposium. “Local Drug Delivery Directly

Into the Fourth Ventricle of the Brain: A Novel Treatment Approach for Malignant Tumors of the Posterior Fossa.” Atlanta, GA, September, 2017.

94. International Society for Pediatric Neurosurgery. “Neuro-endoscopy:

Indications and Techniques for Treating Hydrocephalus, Tumors, and Cysts

in Children.” Denver, CO, October, 2017.

95. XVIII Congreso Peruano de Neurocirugia. “Tratamiento Endocopico de la

Hidrocefalia.” Lima, Peru, October, 2017.

96. XVIII Congreso Peruano de Neurocirugia. “Tumores de la Fosa Posterior y

Anatomia Quirurgica Relevante.” Lima, Peru, October, 2017.

97. XVIII Congreso Peruano de Neurocirugia. “Manejo de Tumores en Region

Pineal.” Lima, Peru, October, 2017.

98. XVIII Congreso Peruano de Neurocirugia. “Asociacion de la Malformacion

Chiari con Craneosinostosis de las Suturas Multiples.” Lima, Peru, November, 2017.

99. XVIII Congreso Peruano de Neurocirugia. “Entrega Local de Quimioterapia

y Otros Agentes Directamente en el IV Ventriculo Para Tumores Malignos

Pediatricos.” Lima, Peru, November, 2017.

100. XVIII Congreso Peruano de Neurocirugia. “Tratamiento Endocopico de los

Tumores Intraventriculares.” Lima, Peru, November, 2017.

101. XVIII Congreso Peruano de Neurocirugia. “Controversias en el Manejo do

la Malformacion Chiari I.” Lima, Peru, November, 2017.

102. AANS/CNS Pediatric Section Meeting Advance Practice Provider Seminar.

“Overview of Pediatric Brain Tumors.” Houston, Texas, November, 2017.

103. Texas Association of Neurological Surgeons Annual Meeting. “Update on

Local Delivery Techniques to Treat Malignant Posterior Fossa Tumors in

Children.” Houston, Texas, February, 2018.

104. Harvard University. “Advancing Neurosurgical Care in Developing

Countries: A Top-Down Approach to Improving Global Health. Cambridge, Massachusetts, May, 2018.

105. Chiari and Syringomyelia Foundation Symposium. “Outcomes in Pediatric

Patients With Chiari I Malformations Followed Without Surgery. Houston,

Texas, October, 2018.

106. Visiting Professor, LSU/Shreveport Department of Neurosurgery. “Local

Delivery of Chemotherapy and Novel Agents Directly into the Fourth Ventricle to treat Malignant Pediatric Brain Tumors in Children.” Shreveport, LA, December, 2018.

107. American Association of Neurological Surgeons, Global Neurosurgical

Practice Course. “Myelomeningocele Repair.” San Diego, CA, April, 2019.

108. Ian’s Friends Foundation WhatIFF Symposium. “Development of

Panobinostat Cyclodextrin Networks for Intraventricular Drug Delivery.” Atlanta, GA, September, 2019.

109. Pediatric Brain Tumor Consortium Novel Drug Delivery Systems

Symposium. “Direct Delivery of Chemotherapy into the Fourth Ventricle for Malignant Posterior Fossa tumors. Denver, CO, October, 2019

110. Neurosurgery Unit of the Edgardo Rebabliati Martins Hospital. “Tratamiento

de Tumores de Fosa Posterior.” Lima Peru (via videoconference) July,

2020

111. AANS/CNS 2020 Pediatric Section Meeting, Fellows Bootcamp. “ETV and

Intraventricular Neuroendoscopy.” Virtual Meeting, December, 2020

112. AANS/CNS 2020 Pediatric Section Meeting. “Expert in the Field: Abstract

Summary, Medulloblastoma.” Virtual Meeting, December, 2020

113. Global Neurosurgery Education Summit, Weill Cornell Medical Center.

“Bassett Fellowship (FIENS).” Virtual Meeting, November, 2021.

114. Ian’s Friends Foundation WhatIFF Symposium. “Local Drug Delivery

Directly Into the Fourth Ventricle of the Brain to Treat Malignant Tumors of

the Posterior Fossa.” Atlanta, GA, September, 2022.

115. UTHealth Neurosciences Symposium. “Management of Arachnoid Cysts

and Other Brain Cysts.” Houston, Texas, September, 2022

116. Texas Clinical Symposium on Women’s & Children’s Health, presented by

the Woman’s Hospital of Texas. “Management of Hydrocephalus in

Neonates.” Houston, Texas, October, 2022.

117. Lone Star College Montgomery, Paramedic Training. “Emergency Care of

Children with Head Injuries.” Houston, Texas, October, 2022.

118. AANS/CNS Pediatric Section Meeting. “Nonoperative Management of

Childhood Calvairal Langerhans-Cell Histiocytosis.” Washington, DC,

December, 2022

119. İzmir Kâtip Celebi University, Online Neurosurgery Conference Program.

“Chemotherapeutic administration into the fourth ventricle to treat malignant

fourth ventricle brain tumors.” Izmir, Turkey (virtual), January, 2023.

120. American Society of Pediatric Neurosurgeons. “Some Arachnoid Cysts

Need Surgery.” Puerto Rico, January, 2023

121. Global Surgery Student Alliance, McGovern Medical School. “Global

Neurosurgery.” Houston, Texas, January, 2023

122. MD Anderson Cancer Center, Department of Radiation Oncology

Conference; “Surgical Management of Pediatric CNS Tumors.” Houston, Texas, February, 2023

123. Fourth Annual Conference of Neurosurgery Department, Children’s Cancer

Hospital Egypt 57357. “Direct Administration of Chemotherapy into the

Fourth Ventricle of the Brain to Treat Recurrent Malignant Brain Tumors in

Children.” Cairo, Egypt, March, 2023.

124. Fourth Annual Conference of Neurosurgery Department, Children’s Cancer

Hospital Egypt 57357. “Neurosurgical Management of Arachnoid Cysts.”

Cairo, Egypt, March, 2023.

**Visiting Professorships:**

2008 Johns Hopkins Hospital, Department of Neurosurgery

2016 Louisiana State University, New Orleans, Department of Neurosurgery

2017 Weill Medical College of Cornell University, Department of Neurosurgery

2018 Louisiana State University, Shreveport, Department of Neurosurgery