

Curriculum vitae

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Place of Birth: Anchorage, Alaska

Education

Year	Degree (Honors)	Field of Study (Thesis advisor for PhDs)	Institution
1993 - 1997	M.D. with Thesis	Medicine	University of California, San Francisco, San Francisco, CA
1988 - 1993	B.S.	Molecular Biology	San Jose State University, San Jose, CA

Postdoctoral Training

Year(s)	Titles	Specialty/Discipline (Lab PI for postdoc research)	Institution
2007 - 2008	Research Fellow	Center for Developmental Biology, Luis Parada, Ph.D	UT Texas Southwestern Medical Center, Dallas, TX
2005 - 2007	Assistant Instructor	Center for Developmental Biology, Steven Kernie, MD	UT Texas Southwestern Medical Center, Dallas, TX
2002 - 2005	Fellow	Pediatric Critical Care	UT Southwestern Medical Center, Dallas, TX
1997 - 2000	Resident	Pediatrics	University of California, San Francisco, San Francisco, CA

Faculty Academic Appointments

Year(s)	Academic Title	Department	Academic Institution
2008 - present	Assistant Professor	Pediatric Critical Care	Children's Health
2005 - 2008	Assistant Instructor	Pediatrics	UT Southwestern Medical Center, Dallas, TX
2000 - 2002	Clinical Associate	Pediatrics/Neonatology	University of California, San

	Instructor		Francisco, San Francisco, CA
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Current Licensure and Certification

Licensure

- 2006- Texas Medical Board
- 1998 Medical Board of California

Board and Other Certification

- 2018 American Society of Neuroimaging Ultrasound Physics and Transcranial Doppler Certification
- 2016 Emergency Neurologic Life Support, Society of Neurocritical Care
- 2006 Board Certified, Pediatric Critical Care (Recertified 2017)
- 2000 American Board of Pediatrics

Honors and Awards

Year	Name of Honor/Award	Awarding Organization
1996	Deans Prize for Research	University of California, San Francisco
1995	Lowell Glasgow Award	Western Society of Pediatric Research

Appointments at Hospitals/Affiliated Institutions

<u>Past</u>			
Year(s)	Position Title	Department/Division	Institution
2000 - 2002	Staff Physician	Pediatric Hospitalist Program	Marin General Hospital, Marin, CA
2000 - 2002	Staff Physician	San Francisco Neonatology Medical Group	Mills Peninsula Hospital, Burlingame, CA
<u>Current</u>			
Year(s)	Position Title	Department/Division	Institution
2008 - present	Attending	Pediatric Critical Care	Children’s Health
2012	Secondary Faculty	Neurology and Neurotherapeutics/Neurocritical Care	UT Southwestern Medical Center, Dallas, TX
2008	Assistant Professor	Pediatrics/Critical Care	UT Southwestern Medical Center, Dallas, TX

Major Administrative/Leadership Positions

Year(s)	Position Title	Institution
2009 - 2014	PICU physician leader, central line blood stream infection reduction team	Children's Medical Center, Dallas, TX

Committee Service (*Member, unless noted otherwise*)

Year(s)	Name of Committee	Institution/Organization
<u>UTSW</u>		
2016	Scholarship Oversight Committee, Amy Lee	UT Southwestern Medical Center, Dallas, TX
2014	Scholarship Oversight Committee, Robyn Puente	UT Southwestern Medical Center, Dallas, TX
2011	Scholarship Oversight Committee, Ashraf Resheidat	UT Southwestern Medical Center, Dallas, TX
2009	Scholarship Oversight Committee, Kyle Lieppman	UT Southwestern Medical Center, Dallas, TX
2006 - 2008	Stem Cells in the Nervous System, Center for Developmental Biology	UT Southwestern Medical Center, Dallas, TX
<u>Hospital</u>		
2013 - present	Center for Cerebrovascular Disorders in Children	Children's Medical Center, Dallas, TX
<u>State/Regional</u>		
<u>National/International</u>		
2014 - 2015	Steering Committee, Approaches and Decisions after Pediatric TBI Trial	Pediatric Neurocritical Care Research Group
2013	Multiple Medical Therapies for Pediatric Traumatic Brain Injury Workgroup	

Professional Societies

Dates	<u>Society Name, member</u>
2009 - present	Pediatric Neurocritical Care Research Group
2018-	American Society of Neuroimaging
2016	American Institute of Ultrasound Medicine
2013	Neurocritical Care Society
2005 - 2014	Perot Center for Brain and Nerve Injury
<u>Fellowships</u>	
1990 - 1993	Minority Access to Research Careers Fellow

Editorial Activities

Year(s)	Journal Name
<u>Ad Hoc Reviewer</u>	
2108	Neurocritical Care
2017	National Neurotrauma Society Symposium Abstract Selection Committee
2016	Journal of Neurotrauma
2013	Journal of Pediatric Nephrology
2012	Journal of Pediatric Critical Care
2012	Journal of Experimental Neurology
2011	Journal of Pediatric Research
2010	BMC Medical Research Journal

Grant Support

<u>Present</u>	
2015	<i>Grantor:</i> Texas Institute of Brain Injury and Repair
	<i>Title of Project:</i> Maintenance of CPP in moderate to severe traumatic brain injury attenuates CNS inflammation after TBI
	<i>Role:</i> Co-Investigator
	<i>Total Award:</i> \$100,000
2014	<i>Grantor:</i> National Institute of Neurologic Disorders and Stroke
	<i>Title of Project:</i> Approaches and Decisions in Pediatric Traumatic Brain Injury
	<i>Role:</i> Site PI
	<i>Total Award:</i> \$240,000

<u>Past</u>	
2006 - 2008	<i>Grantor:</i> Children's Medical Center Clinical Research Advisory Committee
	<i>Title of Project:</i> Transplanted Adult Neural Stem Cell Contributions to Brain Remodeling after Traumatic Brain Injury in Mice
	<i>Role:</i> Principal Investigator
	<i>Total Award:</i> \$15,000

Clinical Trials Activities

<u>Present</u>	
2017-	<i>Grantor:</i> National Institute of Neurologic Disorders and Stroke
	<i>Title of Project:</i> Magnetic Resonance Imagine Markers of Outcome after Severe Pediatric TBI
	<i>Role:</i> Site PI

2017-	<i>Grantor:</i> National Institute of Neurologic Disorders and Stroke
	<i>Title of Project:</i> Genetic and Environmental Influences on Recovery of Severe Pediatric Brain Injury
	<i>Role:</i> Site PI

<u>Past</u>	
2014-2017	<i>Grantor:</i> National Institute of Neurologic Disorders and Stroke
	<i>Title of Project:</i> Approaches and Decisions in Pediatric Traumatic Brain Injury
	<i>Role:</i> Site PI
2010 - 2014	<i>Grantor:</i> National Heart Lung and Blood Institute
	<i>Title of Project:</i> Therapeutic Hypothermia After Pediatric Cardiac Arrest (THAPCA) Trial
	<i>Role:</i> Co-Site PI
2010 - 2013	<i>Grantor:</i> National Institute of Neurologic Disorders and Stroke
	<i>Title of Project:</i> Neurobehavioral and Social Outcome of Head Injury in Adolescents
	<i>Role:</i> Co-Investigator and Site PI
2009 - 2011	<i>Grantor:</i> National Institute for Child Health and Development
	<i>Title of Project:</i> Genetic Factor in Outcome From Traumatic Brain Injury
	<i>Role:</i> Site PI
2008 - 2013	<i>Grantor:</i> Perot Center for Brain and Nerve Injury
	<i>Title of Project:</i> Long-term Study of Brain Injury in Children: Blood, Serum, CSF and DNA Repository and Database
	<i>Role:</i> PI
2006 - 2010	<i>Grantor:</i> National Institute of Neurologic Disorders and Stroke
	<i>Title of Project:</i> Comparison of Hypothermia and Normothermia after Severe TBI in Children (Cool KIDS) Trial
	<i>Role:</i> Co-Site PI

Teaching Activities

Year(s)	Activity
<u>Medical and graduate school didactic and small group teaching</u>	
2016 - present	ICU Resident Lecture Series; Pediatric Neurologic Emergencies
2015 - present	ICU Fellow Didactic Conference- Cerebral Blood Flow
2015	Solutions for Patient Safety-Building HAC Responsibility- CLABSI Focused Webinar
2015	ICU Fellow Didactic Conference- Cerebral Resuscitation After Cardiac Arrest
2014	ICU Fellow Didactic Conference- Seizures, Neurologic Monitoring and ICP Therapy
2013 - present	Neurocritical Conference Series
2013 - present	ICU Resident Lecture Series- Pediatric Stroke
2013	ICU Fellow Didactic Conference- Traumatic Brain injury

<u>Mentored Trainees</u>	
2018	UTSW Pediatric Critical Care Fellow Danyal Thaver. A Study of Multimodal methods of Cerebral Vascular Autoregulation after Pediatric Acute Severe Brain Injury
2017	UT Southwestern Medical Center Medical Student Summer Research Program; Kelsey Kirkman, Study of optic nerve sheath ultrasound to predict elevated ICP in pediatric neurocritical care patients
2015	UT Southwestern Medical Center Medical Student Summer Research Program; Claire Usala Association of ApoE allelic variation with outcome after pediatric TBI
2012	UT Southwestern Medical Student Summer Research Program; Karen Wong, Correlation of GOSEP with IQ in children after moderate and Severe TBI
2010	UT Southwestern Medical Student Summer Research Program; Xiao Shen, Correlation of CT classification outcomes after pediatric TBI
2010	UT Southwestern Medical Student Summer Research Program; Nicci Owusu-Brackett, Hematoma Expansion in Children after Traumatic Brain Injury
2009	UT Southwestern Medical Student Summer Research Program; Emily Smitherman, MRI volumetric analysis of FLAIR lesion volume after pediatric TBI
<u>Postgraduate medical education (graduate & continuing medical education)</u>	
2015 - present	Nurse Residency Program, Essentials of Neuroprotection

Invited Lectures

Year(s)	Title	Location
<u>Regional/Local</u>		
2017	Evaluation and Management of Acute Pediatric Neurovascular Emergencies; Center for Cerebrovascular Disorders in Children Annual Conference	Children's Health, Legacy Campus Plano, TX
2017	Evaluation and Management of Neurocritical Care Disorders; New Frontiers in Pediatric Neurology Annual Meeting	UT Southwestern Medical Center, Dallas, TX
2016	Maintenance of CPP Attenuates CNS Inflammation after Severe Pediatric Traumatic Brain Injury; Trauma Grand Rounds:	Children's Medical Center, Dallas, TX
2016	Complex Care with Compassion: Medical Technology in Pediatric Palliative Care	Cooks Children's Hospital, Fort Worth, TX
2016	Schwartz Center Rounds	Children's Medical Center, Dallas, TX
2016	Anesthetic Considerations in Pediatric Neurocritical Care; Anesthesia Grand Rounds	Children's Medical Center, Dallas, TX
2013	Anatomy of Motor Vehicle Crashed in Head Injured Children; Trauma Grand Rounds	Children's Medical Center, Dallas, TX
2011	Neuroimaging and Neurocognitive Outcome After Traumatic Brain Injury in Children	Children's Health, Legacy Campus Plano, TX
2010	Predicting Outcome After Pediatric TBI using	Children's Medical Center, Dallas,

	Quantitative MRI Volume Analysis; Neurosurgery Grand Rounds	TX
2010	Neurocognitive Outcome After Traumatic Brain Injury in Children; Trauma Grand Rounds:	Children's Medical Center, Dallas, TX
2006	CNS Remodeling after Ischemic Injury; Brain and Nerve Injury Center Conference	Children's Medical Center, Dallas, TX

Service to the Community

Year(s)	Role	Organization or institution
2008 - 2010	Fundraising Chair	Dallas Heart Ball Dallas, TX

Bibliography

Peer-Reviewed Publications

1.	Slovis JC, Gupta N, Li NY, Kernie SG, Miles DK. Assessment of Recovery Following Pediatric Traumatic Brain Injury. <i>Pediatric Critical Care Medicine</i> 2018 April; 19(3):353-360
2.	Cohn EC, Robertson TS, Scott SA, Finley AM, Huang R, Miles DK. Extubation Failure and Tracheostomy Placement in Children with Acute Neurocritical Illness. <i>Neurocritical Care</i> . 2018 Feb 28(1):83-92
3.	Bell MJ, Adelson PD, Wisniewski SR; (*collaborating author) Investigators of the ADAPT Study Challenges and opportunities for pediatric severe TBI-review of the evidence and exploring a way forward. <i>Child Nervous System</i> 2017 Oct 33(10):1663-1667
4.	Ferguson N, Sarnaik A., Miles D, Shafi N, Peters M, Truemper E, Vavilala M, Bell M, Wisniewski S, Luther J, Hartman A, Kochanek P. Abusive Head Trauma and Mortality - An Analysis from an International Comparative Effectiveness Study of Children with Severe Traumatic Brain Injury. <i>Critical Care Medicine</i> . 2017 Aug 45(8): 1398-1407
5.	Tian F, Jenks C, Potter D, Miles D, Raman L. Regional cerebral abnormalities measured by frequency-domain near-infrared spectroscopy in pediatric patients during extracorporeal membrane oxygenation. <i>American Society for Artificial Internal Organs</i> . 2017 Sep/Oct 63(5):e52-e59
6.	Kurz JE, Poloyac SM, Abend NS, Fabio A, Bell MJ, Wainwright MS; (*collaborating author) Investigators for the ADAPT Trial. Variation in Anticonvulsant Selection and Electroencephalographic Monitoring Following Severe Traumatic Brain Injury in Children-Understanding Resource Availability in Sites Participating in a Comparative Effectiveness Study. <i>Pediatric Critical Care Medicine</i> . 2016 Jul 17(7):649-57
7.	Smitherman E, Hernandez A, Stavinoha PL, Huang R, Kernie SG, Diaz-Arrastia R, Miles DK. Predicting Outcome after Pediatric Traumatic Brain Injury by Early Magnetic Resonance Imaging Lesion Location and Volume. <i>Journal of Neurotrauma</i> . 2016 Jan 33(1):35-48
8.	Bell MJ, Adelson PD, Hutchison JS, Kochanek PM, Tasker RC, Vavilala MS, Beers SR, Fabio A, Kelsey SF, Wisniewski SR, Multiple Medical Therapies for Pediatric Traumatic Brain Injury Workgroup (*collaborating author). Differences in medical therapy goals for children with severe traumatic brain injury-an international study. <i>Pediatric Critical Care Medicine</i> . 2013 Oct 14(8): 811-818

9.	Chen Y*, Miles D*, Hoang T, Shi J, Hurlock E, Kernie SG, Lu QR. The basic helix-loop-helix transcription factor olig2 is critical for reactive astrocyte proliferation after cortical injury. <i>Journal of Neuroscience</i> . 2008 Oct 28(43):10983-9, *co-first authors
10.	Miles D., Orr B.A., Kernie S.G. Hypoxic-ischemic brain injury activates early hippocampal stem/progenitor cells to replace vulnerable neuroblasts. <i>Hippocampus</i> . 2008;18(8):793-806
11.	Koch JD., Miles DK, Gilley JA, Yang C, Kernie SG. Brief exposure to hyperoxia depletes the glial progenitor pool and impairs functional recovery following hypoxic-ischemic brain injury. <i>Journal of Cerebral Blood Flow and Metabolism</i> . 2008 Jul 28(7):1294-1306
12.	Shi J, Miles D, Orr BA, Massa SA, Kernie SG. Injury induced neurogenesis in Bax- deficient mice: evidence for regulation by voltage-gated potassium channels. <i>European Journal of Neuroscience</i> . 2007 Jun 25(12):3499-512
13.	Miles D, Freedman MH, Stephens K, Pallavicini M, Sievers EL, Weaver M, Grunberger T, Thompson P, Shannon KM. Patterns of Hematopoietic lineage involvement in children with Neurofibromatosis, Type I and malignant myeloid disorders. <i>Blood</i> . 1996 Dec 88(11): 4314-20
14.	<u>Miles D.K.</u> , MD With Thesis Dissertation: (1997) Allelic loss at the NF1 locus and lineage involvement in children with Neurofibromatosis (NF1) and malignant myeloid disorders. Vi, 39 leaves: ill.; cm.

Reviews, Chapters, Monographs and Editorials

1.	Cruz-Navarro J., Miles, D.K., McDonagh D.L. <u>Pediatric Neurocritical Care</u> . Editors Agrawal, G., Britz G. <i>Pediatric Vascular Neurosurgery</i> . Springer International Publishing, Switzerland 2017
2.	Miles D.K., Kernie S.G. <u>Activation of neural stem and progenitor cells after brain injury</u> . <i>Progress in Brain Research</i> 2006;157:187-197.

Clinical Practice Guidelines and Quality Improvement

1.	<i>Developed and Implemented a Collaborative PICU to Anesthesia Bedside Communication Handoff Tool and Checklist for Pediatric Neurocritical Care Patients</i> . Children’s Health - Children’s Medical Center, Dallas, TX
2.	<i>Post Cardiac Arrest Resuscitation Evaluation and Planning Checklist</i> . Children’s Health - Children’s Medical Center, Dallas, TX
3.	<i>Guidelines for the Management of Normothermia in Pediatric Neurocritical Care Patients</i> . Children’s Health - Children’s Medical Center, Dallas, TX
4.	<i>Guidelines for the Multidisciplinary Treatment and Management of Children with Acute Fulminant Liver Failure</i> . Children’s Health - Children’s Medical Center, Dallas, TX
5.	<i>Guidelines for the Multidisciplinary Treatment and Management of Status Epileptics, Refractory Status Epilepticus and Super Refractory Status Epilepticus</i> . Children’s Health - Children’s Medical Center, Dallas, TX
6.	<i>Guidelines for Multidisciplinary Treatment and Management Severe Traumatic Brain Injury in the PICU</i> . Children’s Health - Children’s Medical Center, Dallas, TX