



Marike Zwienenberg, M.D.

Philosophy of Care

Disorders affecting the brain and spine are often life-altering for patients and their families. When faced with disease affecting the central nervous system, selecting the optimal treatment strategy for a child can be difficult and complex. As a neurosurgeon I strive to educate and empower parents to make these challenging healthcare decisions so that they can best fulfill the needs of their child and family.

Clinical Interests

Dr. Zwienenberg is fellowship trained and board certified in general Neurological Surgery and Pediatric Neurological Surgery. She provides medical and surgical care to patients with brain and spinal cord tumors, hydrocephalus, craniofacial disorders, epilepsy, spinal dysraphism (including fetal surgery), vascular anomalies and traumatic brain injury. She has expertise in minimally invasive endoscopic surgery for hydrocephalus and craniosynostosis.

Research/Academic Interests

Dr. Zwienenberg's research interests include studying the effects of injury to the developing brain and the long-term impact on neurological functioning and developmental outcome. Her clinical research interests include the development of clinical guidelines and decision instruments to optimize the care of children with traumatic brain injury.

Title Health Sciences Associate Clinical Professor

Specialty Pediatric Neurological Surgery

Department [Neurological Surgery](#)

Division Neurological Surgery

Clinic UC Davis Medical Group, Sacramento - Midtown

Center/Program Affiliation [UC Davis Children's Hospital](#)

Trauma Program

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Languages Dutch



Marike Zwienenberg, M.D.

- Education** M.D., Erasmus University Rotterdam, Rotterdam, The Netherlands 1997
- Internships** General Surgery, UC Davis Medical Center, Sacramento CA 2000-2001
- Residency** Neurological Surgery, UC Davis Medical Center, Sacramento CA 2001-2006
- Fellowships** Pediatric Neurological Surgery, St. Jude Childrens Research Hospital/Le Bonheur Childrens Medical Center, Memphis TN 2006-2007
- Board Certifications** American Board of Neurological Surgery
American Board of Pediatrics - Pediatric Neurological Surgery
- Professional Memberships** American Society of Pediatric Neurosurgeons
- Honors and Awards** UC Davis Deans Team Award for Clinical Excellence: Craniopagus separation surgery, 2021
Sacramento Magazine Top Doctor Neurological Surgery: 2016, 2018, 2019, 2020, 2021
Sacramento Magazine Top Doctor Pediatric Neurological Surgery: 2018, 2019, 2020, 2021
UC Davis Deans Team Award for Clinical Excellence: Fetal Surgery team, 2017
Outstanding leadership award, UC Davis Department of Neurological Surgery, 2016
Americas Best Doctors, 2016
Deans Team Award for Excellence in Clinical Care, UC Davis School of Medicine, 2014
- Select Recent Publications** Ondek K, Brevnova O, Jimenez-Ornelas C, Vergara A, Zwienenberg M, Gurkoff G. A new model of repeat mTBI in adolescent rats. *Exp Neurol.* 2020 Sep;331:113360. doi:10.1016/j.expneurol.2020.113360. Epub 2020 May 20. PMID:32442552.
- Goodarzi A, Garza N, Lechpammer M, Anthony R, Zwienenberg M. The molecular oncology of bilateral high-grade thalamic astrocytomas in children. *Childs Nerv Syst.* 2019 Sep 14. doi: 10.1007/s00381-019-04372-0. [Epub ahead of print] PMID:31522255
- Greenan K, Taylor SL, Fulkerson D, Shahlaie K, Gerndt C, Krueger EM, Zwienenberg M. Selection of children with ultra-severe traumatic brain injury for neurosurgical intervention. *J Neurosurg Pediatr.* 2019 Apr 5:1-10. doi: 10.3171/2019.1.PEDS18293. [Epub ahead of print] PMID: 30952132



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Nishijima DK, Yang Z, Urbich M, Holmes JF, Zwienenberg-Lee M, Melnikow J, Kuppermann N. Cost-effectiveness of the PECARN rules in children with minor head trauma. *Ann Emerg Med*. 2015 Jan;65(1):72-80.e6. doi:10.1016/j.annemergmed.2014.08.019. Epub 2014 Nov 12. PMID:25443992.

Sarkar K, Keachie K, Nguyen U, Muizelaar JP, Zwienenberg-Lee M, Shahlaie K. Computed tomography characteristics in pediatric versus adult traumatic brain injury. *J Neurosurg Pediatr*. 2014 Mar;13(3):307-14. doi:10.3171/2013.12.PEDS13223. Epub 2014 Jan 10. PMID:24410128

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Justice CM, Yagnik G, Kim Y, Peter I, Jabs EW, Erazo M, Ye X, Ainehsazan E, Shi L, Cunningham ML, Kimonis V, Roscioli T, Wall SA, Wilkie AO, Stoler J, Richtsmeier JT, Heuzé Y, Sanchez-Lara PA, Buckley MF, Druschel CM, Mills JL, Caggana M, Romitti PA, Kay DM, Senders C, Taub PJ, Klein OD, Boggan J, Zwienenberg-Lee M, Naydenov C, Kim J, Wilson AF, Boyadjiev SA. A genome-wide association study identifies susceptibility loci for nonsyndromic sagittal craniosynostosis near BMP2 and within BBS9. *Nat Genet.* 2012 Dec;44(12):1360-4. doi:10.1038/ng.2463. Epub 2012 Nov 18. PMID:23160099.

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