



## Marike Zwieneberg, M.D.

**Philosophy of Care** Disorders affecting the brain and spine are often life-altering for patients and their families. Under these circumstances, selecting the optimal treatment strategy for a child is a complex decision process. As a neurosurgeon I strive to educate and empower parents to make these complex healthcare decisions so that they can best fulfill the needs of their child and family.

**Clinical Interests** I specialize in pediatric neurosurgery with specific emphasis on the treatment of brain tumors, craniofacial disorders, epilepsy, spinal dysraphism, and traumatic brain injury. My research interests include studying the effects of injury to the developing brain and long term impact on neurological functioning. Current research projects include evaluation of the cognitive impact of radiation to the pediatric brain and amelioration of its effect by administration of oral selenium compounds. I am interested in the impact of moderate brain injury on the cognitive development of young children and teenagers. I am currently studying these effects in a pediatric brain injury model and am involved with the development of relevant injury models for the pediatric age group. Development of these models will allow us to better understand the pathophysiology of injury and develop more targeted future interventions.

**Title** Assistant Professor

**Specialty** Pediatric Neurological Surgery, Pediatrics

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**Division** Neurological Surgery  
Pediatric Surgery

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

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**Languages** Dutch

**Education** M.D., Erasmus University Rotterdam, Rotterdam, 1997

**Internships** UC Davis Medical Center, Sacramento, California, 2001



## Marike Zwienenberg, M.D.

- Residency** UC Davis Medical Center, Sacramento, California, 2006
- Fellowships** St. Jude Children's Research Hospital/Le Bonheur Children's Medical Center, Memphis, Tennessee, 2006-07
- Board Certifications** American Board of Neurological Surgery, 2012
- Professional Memberships** American Association of Neurological Surgeons  
Congress of Neurological Surgeons  
Pediatric section of American Association of Neurological Surgeons
- Select Recent Publications** Kaufman BA, Matthews AE, Zwienenberg-Lee M and SM Lew. Spinal dural closure with nonpenetrating titanium clips in pediatric neurosurgery. *Journal of Neurosurgery (Pediatrics)*, 6(4): 359-363. 2010
- Utter GH, Shahlaie K, Zwienenberg-Lee M and JP Muizelaar. Anemia in the setting of traumatic brain injury: The arguments for and against liberal transfusion. *Journal of Neurotrauma*, 28: 155-165. 2010
- Sanford RA, Merchant TE, Zwienenberg-Lee M, Kun LE and FA Boop. Advances in surgical techniques for resection of childhood cerebellopontine angle ependymomas are key to survival. *Childs Nerv Syst*, 25: 1229-1240. 2009
- Zwienenberg-Lee M, Hartman J, Rudisill N, Madden LK, Smith K, Eskridge J, Newell D, Verweij B, Bullock MR, Baker A, Coplin W, Mericle R, Dai J, Rocke D and JP Muizelaar. Balloon Prophylaxis for Aneurysmal Vasospasm (BPAV) Study Group. Effect of prophylactic transluminal balloon angioplasty on cerebral vasospasm and outcome in patients with Fisher grade III subarachnoid hemorrhage: results of a phase II multicenter, randomized, clinical trial. *Stroke (Journal of the American Heart Association)*, 39: 1759-1765. 2008
- Zwienenberg-Lee M, Hartmann J, Rudisill N and JP Muizelaar. Endovascular management of cerebral vasospasm. *Neurosurgery*, 59(5 Suppl.): 139-147. 2006
- Pang D, Tse HH, Zwienenberg-Lee M, Smith M and J Zovickian. The combined use of hydroxyapatite and bioresorbable plates to repair cranial defects in children. *Journal of Neurosurgery (Pediatrics I)*, 102: 35-43. 2005
- Pang D, Zwienenberg-Lee M, Smith M and J Zovickian. Progressive cranial nerve palsy following shunting of isolated fourth ventricle. *Journal of Neurosurgery*, 102: 326-331. 2005
- Zwienenberg M, Gong QZ, Berman RF, Muizelaar JP, Lyeth BG. The effect of groups II and III metabotropic glutamate receptor activation on neuronal injury in a rodent model of traumatic brain injury. *Neurosurgery*. 2001 May;48(5):1119-26; discussion 1126-7.



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Zwienenberg M, Muizelaar JP. Severe pediatric head injury: the role of hyperemia revisited. J Neurotrauma. 1999 Oct;16(10):937-43.

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