



## Curriculum Vitae

**Prof Dr. med. Luigi Mariani**

Chefarzt und Ordinarius

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Born 13.8.1964 in Zürich, Switzerland; **Married, four children**

Languages: Italian, German, French, English

### Positions

|                    |   |
|--------------------|---|
| Since 2008-present | <b>Chairman and Professor</b> of Neurosurgery, University Hospital Basel<br><b>Head of Laboratory Brain Tumor Biology</b> , Dept. of Biomedicine, University of Basel<br><b>Head of the Hirntumorzentrum am Tumorzentrum</b> of the University Hospital Basel |
| Since 2013-present | <b>Board Member</b> of the Ente Ospedaliero Cantonale, Bellinzona   |
| 2005-2008          | <b>Vice-Chairman</b> , Neurosurgery, University Hospital Inselspital Bern (Prof. R. Seiler)   |
| 2004-2008          | <b>Associate Professor</b> , Head of Neurooncology and Vascular Neurosurgery, University Hospital Inselspital Bern (Prof. R. Seiler)  |
| 1996-2003          | <b>Consultant</b> , Neurosurgery, University Hospital Inselspital Bern (Prof. R. Seiler)  |

### Education - Training

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| 2008   | <b>Professor of Neurosurgery</b> , University Hospital Basel                               |
| 2004   | <b>Venia Docendi ("Habilitation")</b> in Neurosurgery, Bern                                |
| 1998   | <b>Swiss Board Certification (FMH) in Neurosurgery</b> , Bern                              |
| 1990-8 | <b>Residency</b> : Lausanne (1990, 1993); Zurich (1991-2); Lugano (1994); Bern (1994-1998) |
| 1993   | <b>Doctoral Degree</b> , Lausanne  |
| 1989   | <b>Medical Doctor Diploma</b> , Lausanne   |
| 1983   | <b>Bachelor, Summa cum laude</b> , Lugano  |

### Clinical/Surgical Subspecialties - Training

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| 1998-Present | <b>&gt;4000 Surgical procedures</b> , including: <ul style="list-style-type: none"> <li>• <b>&gt;1000 patients with Intracranial Tumors</b> (including &gt;200 pituitary tumors, &gt;100 vestibular schwannomas)</li> <li>• <b>&gt;1000 microsurgical procedures on the Spine and the Spinal Cord</b></li> <li>• <b>&gt;100 patients for Epilepsy Surgery</b> in adults and children</li> <li>• <b>&gt;500 Vascular Neurosurgical procedures</b></li> </ul> |
| 2000-2001    | <b>Fellowship</b> : Observational and Research Fellowship, Neurooncological, Neurovascular and Skull Base Surgery. Barrow Neurological Institute in Phoenix, Arizona, USA (R.F. Spetzler, MD).  |

### Research Training

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|-----------|---|
| 1991-1992 | <b>Molecular Biology</b> of brain tumors (Prof. P. Kleihues, Zürich). |
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- 1996                   **Clinical Experimental Research** on Intraarterial treatment strategies for glioma (Prof. G. Schroth, Bern)
- 2000-2001           **Molecular- and Cell Biology** of glioma-invasion, Barrow Neurological Institute, Phoenix, Arizona (PhD M.E. Berens).

Ongoing Official Functions

- Since 2013-present:   **President**, Epilepsy-Committee of the Swiss Federation of Neuro-Societies  
Since 2013-present:   **President**, Board-Certification Committee of the Swiss Society of Neurosurgery

Memberships

- Swiss Society of Neurosurgery  
American Association of Neurological Surgery (AANS, Cushing Society)  
Congress of Neurological Surgeons  
Training Committee of the European Association of Neurological Surgery  
European Association of Neuro-Oncology

### Original Publications by Prof. Dr. med. L. Mariani Since 2010

Andres RH, Pendharkar AV, Kuhlen DB, **Mariani L.** Ventricular enlargement due to acute hyponatremia in a patient with a ventriculoperitoneal shunt. *J Neurosurg*, 113(1):82-4, 2010.

Schindler K, Amor F, Gast H, Müller M, Stibal A, **Mariani L**, Rummel C. Peri-ictal correlation dynamics of high-frequency (80-200 Hz) intracranial EEG. *Epilepsy Res* 89(1):72-8, 2010. Epub 2009 Dec 9.

Cordier D, Forrer F, Maecke H, Mueller J, **Mariani L**, Sailer M, Merlo A. Neoadjuvant targeting of glioblastoma multiforme with radiolabelled DOTAGA-Substance P – Results of a phase I study. *J Neuro-Oncol*, 100(1):129-36, 2010. Epub 2010 Mar 10.

Jost G, Frank S, Fischer N, Taub E, **Mariani L**. An epidural neuroblastoma causing spinal cord compression in a 67 year-old-woman. *Rare Tumors* 30;2(2):e27, 2010.

Kim YH, Nobusawa S, Mittelbronn M, Paulus W, Brokinkel B, Keyvani K, Sure U, Wrede K, Nakazato Y, Tanaka Y, Vital A, **Mariani L**, Stawski R, Watanabe T, De Girolami U, Kleihues P, Ohgaki H. Molecular classification of low-grade diffuse gliomas. *Am J Pathol*, 177(6):2708-14, 2010. Epub 2010 Nov 12.

Ochsenbein AF, Schubert AD, Vassella E, **Mariani L**. Quantitative analysis of O(6)-methylguaninetransferase (MGMT) promoter methylation in patients with low-grade gliomas. *J Neurooncol*, 103:345-51, 2010.

Kim YH, Nobusawa S, Mittelbronn M, Paulus W, Brokinkel B, Keyvani K, Sure U, Wrede K, Nakazato Y, Tanaka Y, Vital A, **Mariani L**, Stawski R, Watanabe T, De Girolami U, Kleihues P, Ohgaki H. Molecular classification of low-grade diffuse gliomas. *Am J Pathol*, 177(6):2708-14, 2010.

Ochsenbein AF, Schubert AD, Vassella E, **Mariani L**. Quantitative analysis of O(6)-methylguaninetransferase (MGMT) promoter methylation in patients with low-grade gliomas. *J Neurooncol* 103:345-51, 2010.

Vassella E, Vajtai I, Bandi N, Arnold M, Kocher V, **Mariani L**. Primer extension based quantitative polymerase chain reaction reveals differences in the methylation status of the MGMT promoter in diffusely infiltration gliomas (WHO grade II-IV) of adults. *J Neurooncol* 104(1):293-303, 2011.

Young-Ho Kim, Joel Lachuer, Michel Mittelbronn, Werner Paulus, Benjamin Brokinkel, Kathy Keyvani, Ulrich Sure, Karsten Wrede, Sumihito Nobusawa, Yoichi Nakazato, Yuko Tanaka, Anne Vital, **Luigi Mariani** and Hiroko Ohgaki. Alterations in the RB1 pathway in low-grade diffuse gliomas lacking common genetic alterations. *Brain Pathol*, 21(6):645-651, 2011.

Monika Hegi, Annie-Claire Diserens, Pierre Bady, Yuta Kamoshima, Mathilde Kouwenhoven, Mauro Delorenzi, Wanyu Lambiv, Marie-France Hamou, Matthias Matter, Arend Koch, Frank Heppner, Yasuhiro Yonekawa, Adrian Merlo, Karl Frei, **Luigi Mariani**, and Silvia Hofer. Pathway Analysis of Glioblastoma Tissue after Preoperative Treatment with the EGFR Tyrosine Kinase Inhibitor Gefitinib - A Phase II Trial. *Mol Cancer Ther*, 10(6):1102-12, 2011.

Schindler K, Gast H, Stiglitz L, Stibal A, Hauf M, Wiest R, **Mariani L**, Rummel C. Forbidden ordinal patterns of peri-ictal intracranial EEG indicate deterministic dynamics in human epileptic seizures. *Epilepsia*, 52:1771-80, 2011.

Largo RD, Schaefer DJ, Krueger J, Harschnitz O, Zimmerer S, Jaquieré C, Haug MD, **Mariani L**, Kunz C. Intracranial application of free fasciocutaneous flaps in a novel sandwich technique for skull base reconstruction. *Int J Oral Maxillofac Surg*, 40(9):931-7, 2011.

Reinert M, Mono ML, Kuhlen D, **Mariani L**, Barth A, Beck J, Andres RH, Gralla J, Wymann R, Schmidt J, Kauert C, Schroth G, Arnold M, Mattle HP, Raabe A, Fischer U. Restenosis after microsurgical non-patch carotid endarterectomy in 586 patients. *Acta Neurochir (Wien)* 154(3):423-31; discussion 431, 2012.

Schatlo B, Fung C, Fathi AR, Sailer M, Winkler K, Daniel RT, Bijlenga P, Ahlbom P, Seule M, Zumofen D, Reinert M, Woernle C, Stienen M, Levivier M, Hildebrandt G, **Mariani L**, Bernays R, Fandino J, Raabe A, Keller E, Schaller K. Introducing a nationwide registry: the Swiss study on aneurysmal subarachnoid haemorrhage (Swiss SOS). *Acta Neurochir (Wien)* 154(12):2173-8; discussion 2178, 2012.

Rummel C, Goodfellow M, Gast H, Hauf M, Amor F, Stibal A, **Mariani L**, Wiest R, Schindler K. A systems-level approach to human epileptic seizures. *Neuroinformatics* 11(2):159-73, 2013.

Bady P, Sciuscio D, Diserens AC, Bloch J, van den Bent MJ, Marosi C, Dietrich PY, Weller M, **Mariani L**, Heppner FL, McDonald DR, Lacombe D, Stupp R, Delorenzi M, Hegi ME. MGMT methylation analysis of glioblastoma on the Infinium methylation BeadChip identifies two distinct CpG regions associated with gene silencing and outcome, yielding a prediction model for comparisons across datasets, tumor grades, and CIMP-status. *Acta Neuropathol* 124(4):547-60, 2012.

Kim YH, Nonoguchi N, Paulus W, Brokinkel B, Keyvani K, Sure U, Wrede K, **Mariani L**, Giangaspero F, Tanaka Y, Nakazato Y, Vital A, Mittelbronn M, Perry A, Ohgaki H. Frequent BRAF gain in low-grade diffuse gliomas with 1p/19q loss. *Brain Pathol*, 22(6):834-40, 2012.

Hauf M, Jann K, Schindler K, Scheidegger O, Meyer K, Rummel C, **Mariani L**, Koenig T, Wiest R. Localizing seizure-onset zones in presurgical evaluation of drug-resistant epilepsy by electroencephalography/fMRI: effectiveness of alternative thresholding strategies. *AJNR Am J Neuroradiol* 33(9):1818-24, 2012.

Pierscianek D, Kim YH, Motomura K, Mittelbronn M, Paulus W, Brokinkel B, Keyvani K, Wrede K, Nakazato Y, Tanaka Y, **Mariani L**, Vital A, Sure U, Ohgaki H. MET gain in diffuse astrocytomas is associated with poorer outcome. *Brain Pathol* 23(1):13-8, 2013.

Leu S, von Felten S, Frank S, Vassella E, Vajtai I, Taylor E, Schulz M, Hutter G, Hench J, Schucht P, Boulay JL, **Mariani L.** IDH/MGMT-driven molecular classification of low-grade glioma is a strong predictor for long-term survival. *Neuro Oncol* 15(4):469-79, 2013.

Stienen MN et al for the Swiss SOS study group. Current practice in neuropsychological outcome reporting after aneurysmal subarachnoid haemorrhage. *Acta Neurochir (Wien)* 155(11):2045-51, 2013.

Sailer MH, Gerber A, Tostado C, Hutter G, Cordier D, **Mariani L.**, Ritz MF. Non-invasive neural stem cells become invasive in vitro by combined FGF2 and BMP4 signaling. *J Cell Sci* 126(Pt 16):3533-40, 2013.

Motomura K, Mittelbronn M, Paulus W, Brokinkel B, Keyvani K, Sure U, Wrede K, Nakazato Y, Tanaka Y, Nonoguchi N, Pierscianek D, Kim YH, **Mariani L.**, Vital A, Perry A, Ohgaki H. PDGFRA gain in low-grade diffuse gliomas. *J Neuropathol Exp Neurol* 72(1):61-6, 2013.

Cordier D, Gerber A, Kluba C, Bauman A, Hutter G, Mindt TL, **Mariani L.** Expression of Different Neurokinin-1 Receptor (NK1R) Isoforms in Glioblastoma Multiforme: Potential Implications for Targeted Therapy. *Cancer Biother Radiopharm* 29(5):221-6, 2014.

Jost GF, Wasner M, Taub E, Walti L, **Mariani L.**, Trampuz A. Sonication of catheter tips for improved detection of microorganisms on external ventricular drains and ventriculo-peritoneal shunts. *J Clin Neurosci* 21(4):578-82, 2014.

Schucht P, Banz V, Trochhsler M, Iff S, Krähenbühl AK, Reinert M, Beck J, Raabe A, Candinas D, Kuhlen D, **Mariani L.** Laparoscopically assisted ventriculoperitoneal shunt placement: a prospective randomized controlled trial. *J Neurosurg* 23:1-10, 2014.

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Haemmig S, Baumgartner U, Glück A, Zbinden S, Tschan MP, Kappeler A, **Mariani L.**, Vajtai I, Vassella E. miR-125b controls apoptosis and temozolamide resistance by targeting TNFAIP3 and NKIRAS2 in glioblastomas. *Cell Death Dis* 5:e1279, 2014.

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Cordier D, Gozé C, Schädelin S, Rigau V, **Mariani L.**, Duffau H. A better surgical resectability of WHO grade II gliomas is independent of favorable molecular markers. *J Neurooncol* 121(1):185-93, 2015.

Hewer E1, **Mariani L.**, Vajtai I. Glioma-like proliferation in a cortical hamartoma of tuberous sclerosis complex. *Brain Tumor Pathol* 2015 Jan;32(1):76-8, 2015.

Zweifel-Zehnder AE, Stienen MN, Chicherio C, Studerus-Germann A, Bläsi S, Rossi S, Gutbrod K, Schmid N, Veaud V, Mondadori C, (...), Fandino J, **Mariani L.**, Raabe A, Roy TD, Reinert M, Robert T, Schatlo B, Bijlenga P, Schaller K, Monsch A. Call for uniform neuropsychological assessment after aneurysmal subarachnoid hemorrhage: Swiss recommendations. *Acta Neurochir (Wien)* 157(9):1449-58, 2015.

Ajammal K, Ritz M-F, Ramadoss A, Sauter G, Boulay J-L, **Mariani L.** Combined expression of nestin and SPARC identifies *in situ* tumor cells in astrocytic tumors of all grades. *J Cytol Histol* 6:2, 2015.

Winzeler B, Zweifel C, Nigro N, Arici B, Bally M, Schuetz P, Blum CA, Kelly C, Berkmann S, Huber A, Gentili F, Zadeh G, Landolt H, **Mariani L.**, Müller B, Christ-Crain M. Postoperative Copeptin Concentration Predicts Diabetes Insipidus After Pituitary Surgery. *J Clin Endocrinol Metab* 100:2275-2282, 2015.

Engel DC, Ferrari A, Tasman AJ, Schmid R, Schindel R, Haile SR, **Mariani L.**, Fournier JY. A basic model for training of microscopic and endoscopic transsphenoidal pituitary surgery: the Egghead. *Acta Neurochir (Wien)*, 2015 Aug 21. Epub ahead of print.

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