

Curriculum vitae

Personal Information

First and last name: Theoni Maragkou
URL: <https://www.igmp.unibe.ch>
Date of birth: 14.10.1991
Place of birth: Patras, Greece
Nationality: Greek
Marital status: Single

Employment

Since 10.2022: Consultant Neuropathologist, Head of Neuropathology, Institute of Tissue Medicine and Pathology, University of Bern, Switzerland (Prof. Dr. med. Aurel Perren)
02.2022-09.2022: Specialist/Board certified Neuropathologist, Institute of Tissue Medicine and Pathology, University of Bern, Switzerland (Prof. Dr. med. Aurel Perren)
02.2021-01.2022: Research Fellow in Experimental Pathology, Institute of Tissue Medicine and Pathology, University of Bern, Switzerland (Prof. Dr. pharm. Erik Vassella)
09.2019-01.2021: Resident in Pathology and Neuropathology, Institute of Tissue Medicine and Pathology, University of Bern, Switzerland (Prof. Dr. med. Aurel Perren, Prof. Dr. med. Ekkehard Hewer)
11.2016-07.2019: Resident in Neuropathology, Institute of Neuropathology, University Medical Center Göttingen, Germany (Prof. Dr. med. Wolfgang Brück, Prof. Dr. med. Christine Stadelmann-Nessler)

Education

12.2021-02.2023: Dr. med. (M.D.), Institute of Tissue Medicine and Pathology, University of Bern, Switzerland (Prof. Dr. pharm. Erik Vassella, Prof. Dr. med. Ekkehard Hewer)
10.2021: Swiss Board Examination in Clinical Neuropathology (SIWF/FMH), University Hospital Basel, Switzerland (Prof. Dr. med. Stephan Frank, Dr. med. Jürgen Hench, Prof. Dr. med. Ekkehard Hewer); diploma issuance on 08.2022

- 09.2009-11.2015: Studies of Human Medicine (in English), University of Medicine and Pharmacy (UMF) Carol Davila, Bucharest, Romania
- 09.2003-06.2009: Sotirchopoulos School, Private General Lyceum (Gymnasium), Patras, Greece (Matura/Abitur)

Courses and certificates

- 14-16.02.2024 TRANSFER Leadership and Communication Course, Swiss Army / Kommando Führungs- und Kommunikationsausbildung (KFK), Lucerne, Switzerland
- 18.01.2023 Spatial Multi-Omics: Use in Biology and Medicine, AGORA Workshop Series, Lausanne, Switzerland
- 13-15.06.2022 Basic University Didactics Course, University of Bern, Bern, Switzerland (virtual course)
- 20-22.04.2022 The European Basic Course in Neuropathology, organized by the European Confederation of Neuropathological Societies (Euro-CNS) (virtual course)

External Funding

- Bernese Cancer League, Switzerland (Role: Principal Investigator): “Clinical, pathological and molecular characterization of adult medulloblastomas for targeted therapy: a multicenter cohort study including primary and relapse cases”; 67'500 CHF (2022-2024)
- Foundation of Clinical and Experimental Tumor Research, Switzerland (Role: Principal Investigator): “Clinical, pathological and molecular characterization of adult medulloblastomas for targeted therapy: a multicenter cohort study including primary and relapse cases”; 32'500 CHF (2022-2024)
- Swiss National Science Foundation, Switzerland (Role: Co-Author; Main Applicant: Philippe Schucht): “HORA0 – Polarimetric visualization of healthy brain fiber tracts for tumor delineation during neurosurgery”; 2'336'694 CHF (2022-2026)

Invited and contributed talks

- Invited talk: “New answers to old questions in glioma classification – the neuropathological view”, Joint Annual Meeting of Swiss Society of Neurosurgery (SSNS) and Swiss Society of Neuroradiology (SSNR), Interlaken, Switzerland (2024)
- Invited talk: “Histopathological considerations and the role of methylation profiling in glioma classification”, Intracranial Glioma Workshop: from A to Z, Athens, Greece (2023)

- Invited talk: “WHO classification of gliomas in pediatric patients”, Intracranial Glioma Workshop: from A to Z, Athens, Greece (2023)
- Contributed talk: “Evaluation of MTAP and p16 immunohistochemical deficiency as surrogate marker for CDKN2A/B homozygous deletion in gliomas”, Congress NeuroWoche, Berlin, Germany (2022)
- Contributed talk: “Pathology of anti-MOG antibody-associated demyelination”, Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS), Berlin, Germany (2018)

Awards

- Poster prize for “Pathology of anti-MOG antibody-associated demyelination”, Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS), Berlin, Germany (2018)

Teaching and Supervision Activities

- Lectures, seminars and autopsy demos in Clinical Neuropathology, Faculty of Medicine, University of Bern, Switzerland (for 3rd, 4th and 5th year medical students)
- Lectures in Molecular Pathology, Faculty of Science, University of Bern, Switzerland
- Co-responsible for education of medical residents, Institute of Tissue Medicine and Pathology, University of Bern, Switzerland
- Co-supervisor of a PhD student, Institute of Tissue Medicine and Pathology, University of Bern, Switzerland
- Co-supervisor of a doctoral student (Dr. med.), Institute of Tissue Medicine and Pathology, University of Bern, Switzerland
- Co-supervisor of two master students (M. med.), Institute of Tissue Medicine and Pathology, University of Bern, Switzerland

Memberships and Associations

- Steering Committee of the Young Clinical Neuroscientists (YouClin) Network (SFCNS)
- Swiss Society of Neuropathology (SSNPath)
- German Society of Neuropathology and Neuroanatomy (DGNN)
- European Confederation of Neuropathological Societies (Euro-CNS)

Scientific Work

- **Maragkou T**, Reinhard S, Jungo P, Pasquier B, Neuenschwander M, Schucht P, Vassella E, Hewer E. Evaluation of MTAP and p16 immunohistochemical deficiency as surrogate marker for CDKN2A/B homozygous deletion in gliomas. *Pathology*. 2023 Jun;55(4):466-477. doi: 10.1016/j.pathol.2023.01.005. Epub 2023 Mar 15. PMID: 37032198.
- **Maragkou T**, Quint K, Pollo B, Hewer E. Intraoperative confocal laser endomicroscopy for brain tumors - potential and challenges from a neuropathological perspective. *Free Neuropathol*. 2022 Nov 23;3:3-24. doi: 10.17879/freeneuropathology-2022-4369. PMID: 37284159; PMCID: PMC10209910.
- Gros R, Rodríguez-Núñez O, Felger L, Moriconi S, McKinley R, Pierangelo A, Novikova T, Vassella E, Schucht P, Hewer E, **Maragkou T**. Effects of formalin fixation on polarimetric properties of brain tissue: fresh or fixed? *Neurophotonics*. 2023 Apr;10(2):025009. doi: 10.1117/1.NPh.10.2.025009. Epub 2023 May 24. PMID: 37234458; PMCID: PMC10207713.
- Gros R, Rodríguez-Núñez O, Felger L, Moriconi S, McKinley R, Pierangelo A, Novikova T, Vassella E, Schucht P, Hewer E, **Maragkou T**. Characterization of polarimetric properties in various brain tumor types using wide-field imaging Mueller polarimetry. Submitted in *IEEE Transactions on Medical Imaging* – in 2nd revision process.
- Weng G, Ermiş E, **Maragkou T**, Krcek R, Reinhardt P, Zubak I, Schucht P, Wiest R, Slotboom J, Radojewski P. Accurate prediction of isocitrate dehydrogenase -mutation status of gliomas using SLOW-editing magnetic resonance spectroscopic imaging at 7 T MR. *Neurooncol Adv*. 2023 Jan 3;5(1):vdad001. doi: 10.1093/noajnl/vdad001. PMID: 36875625; PMCID: PMC9977233.
- Kashani E, Schnidrig D, Gheinani AH, Ninck MS, Zens P, **Maragkou T**, Baumgartner U, Schucht P, Rättsch G, Rubin MA; SOCIBP consortium; Berezowska S, Ng CKY, Vassella E. Integrated longitudinal analysis of adult grade 4 diffuse gliomas with long-term relapse interval revealed upregulation of TGF- β signaling in recurrent tumors. *Neuro Oncol*. 2023 Apr 6;25(4):662-673. doi: 10.1093/neuonc/noac220. Erratum in: *Neuro Oncol*. 2023 Feb 14;25(2):430. PMID: 36124685; PMCID: PMC10076939.
- Träger M, Schweizer L, Pérez E, Schmid S, Hain EG, Dittmayer C, Onken J, Fukuoka K, Ichimura K, Schüller U, Dührsen L, Mütter M, Paulus W, Thomas C, Gutt-Will M, Schucht P, **Maragkou T**, Schittenhelm J, Eckert F, Niyazi M, Fleischmann DF, Dorostkar MM, Feyer P, May SA, Moskopp D, Badakhshi H, Radke C, Walter J, Ehret F, Capper D, Kaul D. Adult intracranial ependymoma-relevance of DNA methylation profiling for diagnosis, prognosis, and treatment. *Neuro Oncol*. 2023 Jul 6;25(7):1286-1298. doi: 10.1093/neuonc/noad030. PMID: 36734226; PMCID: PMC10326475.
- Felger L, Rodríguez-Núñez O, Gros R, **Maragkou T**, McKinley R, Moriconi S, Murek M, Zubak I, Novikova T, Pierangelo A, Schucht P. Robustness of the wide-field imaging Mueller polarimetry for brain tissue differentiation and white matter fiber tract

identification in a surgery-like environment: an *ex vivo* study. *Biomed Opt Express*. 2023 May 1;14(5):2400-2415. doi: 10.1364/BOE.486438. PMID: 37206128; PMCID: PMC10191649.

- Ivanov D, Si L, Felger L, **Maragkou T**, Schucht P, Schanne-Klein MC, Ma H, Ossikovski R, Novikova T. Impact of corpus callosum fiber tract crossing on polarimetric images of human brain histological sections: *ex vivo* studies in transmission configuration. *J Biomed Opt*. 2023 Oct;28(10):102908. doi: 10.1117/1.JBO.28.10.102908. Epub 2023 Sep 12. PMID: 37705930; PMCID: PMC10496857.
- Xu Y, Mathis AM, Pollo B, Schlegel J, **Maragkou T**, Seidel K, Schucht P, Smith KA, Porter RW, Raabe A, Little AS, Sanai N, Agbanyim DC, Martirosyan NL, Eschbacher JM, Quint K, Preul MC, Hewer E. Intraoperative *in vivo* confocal laser endomicroscopy imaging at glioma margins: can we detect tumor infiltration? *J Neurosurg*. 2023 Aug 4:1-10. doi: 10.3171/2023.5.JNS23546. Epub ahead of print. PMID: 37542440.
- Renz P, Schoeberlein A, Haesler V, **Maragkou T**, Surbek D, Brosius Lutz A. A Novel Murine Multi-Hit Model of Perinatal Acute Diffuse White Matter Injury Recapitulates Major Features of Human Disease. *Biomedicines*. 2022 Nov 4;10(11):2810. doi: 10.3390/biomedicines10112810. PMID: 36359331; PMCID: PMC9687579.
- Engelhardt S, Dislich B, Zubler C, **Maragkou T**, Wartenberg M, Tzankov A. Myositis als postakute Folge einer COVID-19-Erkrankung? : Auch in Zeiten der Pandemie können Muskelbiopsien oft nur im Kontext einer genauen Weitergabe klinischer Informationen beurteilt werden [Myositis as a post-acute sequela of COVID-19 disease? : Even in times of the pandemic, muscle biopsies can only be assessed in the context of accurate clinical information]. *Pathologie (Heidelb)*. 2022 Sep;43(5):377-380. German. doi: 10.1007/s00292-022-01063-7. Epub 2022 Apr 4. PMID: 35376988; PMCID: PMC8978168.
- Bettag C, Hussein A, Behme D, **Maragkou T**, Rohde V, Mielke D. Endoscopic Fluorescence-Guided Resection Increases Radicality in Glioblastoma Surgery. *Oper Neurosurg (Hagerstown)*. 2020 Jan 1;18(1):41-46. doi: 10.1093/ons/opz082. PMID: 31058980.
- Kube J, **Maragkou T**, Psychogios MN. Supratentorielles intraaxiales Schwannom. *Rofo*. 2019 Mar;191(3):231-233. German. doi: 10.1055/a-0657-4061. Epub 2018 Aug 6. PMID: 30081423.