

## 2022 Publications

### Tumour

**miR-497 and 219 in blood aid meningioma classification.** Abdelrahman A, Negroni C, Sahm F, Adams CL, Urbanic-Purkart T, Khalil M, Vergura R, Morelli C, Hanemann CO. [J Neurooncol. 2022 Sep 8. doi: 10.1007/s11060-022-04126-0. Epub ahead of print. PMID: 36076132.](#)

**Amplification of the PLAG-family genes-PLAGL1 and PLAGL2-is a key feature of the novel tumor type CNS embryonal tumor with PLAGL amplification.** Keck MK, Sill M, Wittmann A, Joshi P, Stichel D, Beck P, Okonechnikow K, Sievers P, Wefers AK, Roncaroli F, Avula S, McCabe MG, Hayden JT, Wesseling P, Øra I, Nistér M, Kranendonk MEG, Tops BBJ, Zapotocky M, Zamecnik J, Vasiljevic A, Fenouil T, Meyronet D, von Hoff K, Schüller U, Loiseau H, Figarella-Branger D, Kramm CM, Sturm D, Scheie D, Rauramaa T, Pesola J, Gojo J, Haberler C, Brandner S, Jacques T, Sexton Oates A, Saffery R, Koscielniak E, Baker SJ, Yip S, Snuderl M, Ud Din N, Samuel D, Schramm K, Blattner-Johnson M, Selt F, Ecker J, Milde T, von Deimling A, Korshunov A, Perry A, Pfister SM, Sahm F, Solomon DA, Jones DTW. [Acta Neuropathol. 2022 Nov 27. doi: 10.1007/s00401-022-02516-2. Epub ahead of print. PMID: 36437415.](#)

**Integrated Molecular-Morphologic Meningioma Classification: A Multicenter Retrospective Analysis, Retrospectively and Prospectively Validated.** Maas SLN, Stichel D, Hielscher T, Sievers P, Berghoff AS, Schrimpf D, Sill M, Euskirchen P, Blume C, Patel A, Dogan H, Reuss D, Dohmen H, Stein M, Reinhardt A, Suwala AK, Wefers AK, Baumgarten P, Ricklefs F, Rushing EJ, Bewerunge-Hudler M, Ketter R, Schittenhelm J, Jaunmuktane Z, Leu S, Greenway FEA, Bridges LR, Jones T, Grady C, Serrano J, Golfinos J, Sen C, Mawrin C, Jungk C, Hänggi D, Westphal M, Lamszus K, Ertinan N, Jungwirth G, Herold-Mende C, Unterberg A, Harter PN, Wirsching HG, Neidert MC, Ratliff M, Platten M, Snuderl M, Aldape KD, Brandner S, Hench J, Frank S, Pfister SM, Jones DTW, Reifenberger G, Acker T, Wick W, Weller M, Preusser M, von Deimling A, Sahm F; [German Consortium on Aggressive Meningiomas \(KAM\)](#). [J Clin Oncol. 2021 Dec 1;39\(34\):3839-3852. doi: 10.1200/JCO.21.00784. Epub 2021 Oct 7. PMID: 34618539; PMCID: PMC8713596.](#)

**Clinical implementation of integrated molecular-morphologic risk prediction for meningioma.** Hielscher T, Sill M, Sievers P, Stichel D, Brandner S, Jones DTW, von Deimling A, Sahm F, Maas SLN. [Brain Pathol. 2022 Nov 14:e13132. doi: 10.1111/bpa.13132. Epub ahead of print. PMID: 36377252.](#)

**Duchenne muscular dystrophy gene expression is an independent prognostic marker for IDH mutant low-grade glioma.** Naidoo M, Jones L, Conboy B, Hamarneh W, D'Souza D, Anthony K, Machado LR. [Sci Rep. 2022 Feb 25;12\(1\):3200. doi: 10.1038/s41598-022-07223-2. PMID: 35217778; PMCID: PMC8881458.](#)

### Non-tumour

**Are We Looking Into an Iron Age for Subarachnoid Hemorrhage?** Plesnila N. [Stroke. 2022 May;53\(5\):1643-1644. doi: 10.1161/STROKEAHA.121.037670. Epub 2022 Feb 24. PMID: 35196872.](#)

**Innate Immune Anti-Inflammatory Response in Human Spontaneous Intracerebral Hemorrhage.** Shtaya A, Bridges LR, Williams R, Trippier S, Zhang L, Pereira AC, Nicoll JAR, Boche D,

Hainsworth AH. [Stroke. 2021 Nov;52\(11\):3613-3623. doi: 10.1161/STROKEAHA.121.034673. Epub 2021 Jul 20. Erratum in: Stroke. 2022 Apr;53\(4\):e188. PMID: 34281379; PMCID: PMC7611898.](#)

**Vascular Collagen Type-IV in Hypertension and Cerebral Small Vessel Disease.** Kumar AA, Yeo N, Whittaker M, Attra P, Barrick TR, Bridges LR, Dickson DW, Esiri MM, Farris CW, Graham D, Lin WL, Meijles DN, Pereira AC, Perry G, Rosene DL, Shtaya AB, Van Agtmael T, Zamboni G, Hainsworth AH. [Stroke. 2022 Oct 7:101161STROKEAHA122037761. doi: 10.1161/STROKEAHA.122.037761. Epub ahead of print. PMID: 36205142.](#)

**Concussion leads to widespread axonal sodium channel loss and disruption of the node of Ranvier.** Song H, McEwan PP, Ameen-Ali KE, Tomasevich A, Kennedy-Dietrich C, Palma A, Arroyo EJ, Dolle JP, Johnson VE, Stewart W, Smith DH. [Acta Neuropathol. 2022 Nov;144\(5\):967-985. doi: 10.1007/s00401-022-02498-1. Epub 2022 Sep 15. PMID: 36107227; PMCID: PMC9547928.](#)

**SMN-deficient cells exhibit increased ribosomal DNA damage.** Karyka E, Berrueta Ramirez N, Webster CP, Marchi PM, Graves EJ, Godena VK, Marrone L, Bhargava A, Ray S, Ning K, Crane H, Hautbergue GM, El-Khamisy SF, Azzouz M. [Life Sci Alliance. 2022 Apr 19;5\(8\):e202101145. doi: 10.26508/lsa.202101145. PMID: 35440492; PMCID: PMC9018017.](#)

**Expression of human-specific ARHGAP11B in mice leads to neocortex expansion and increased memory flexibility.** Xing L, Kubik-Zahorodna A, Namba T, Pinson A, Florio M, Prochazka J, Sarov M, Sedlacek R, Huttner WB. [EMBO J. 2021 Jul 1;40\(13\):e107093. doi: 10.15252/embj.2020107093. Epub 2021 May 3. PMID: 33938018; PMCID: PMC8246068.](#)

**Human TKTL1 implies greater neurogenesis in frontal neocortex of modern humans than Neanderthals.** Pinson A, Xing L, Namba T, Kalebic N, Peters J, Oegema CE, Traikov S, Reppe K, Riesenberger S, Maricic T, Derihaci R, Wimberger P, Pääbo S, Huttner WB. [Science. 2022 Sep 9;377\(6611\):eabl6422. doi: 10.1126/science.abl6422. Epub 2022 Sep 9. PMID: 36074851.](#)

**The spatiotemporal dynamics of microglia across the human lifespan.** Menassa DA, Muntslag TAO, Martin-Estebané M, Barry-Carroll L, Chapman MA, Adorjan I, Tyler T, Turnbull B, Rose-Zerilli MJJ, Nicoll JAR, Krsnik Z, Kostovic I, Gomez-Nicola D. [Dev Cell. 2022 Aug 9:S1534-5807\(22\)00546-9. doi: 10.1016/j.devcel.2022.07.015. Epub ahead of print. PMID: 35977545.](#)

**Multisystem screening reveals SARS-CoV-2 in neurons of the myenteric plexus and in megakaryocytes.** Gray-Rodriguez S, Jensen MP, Otero-Jimenez M, Hanley B, Swann OC, Ward PA, Salguero FJ, Querido N, Farkas I, Velentza-Almpani E, Weir J, Barclay WS, Carroll MW, Jaunmuktane Z, Brandner S, Pohl U, Allinson K, Thom M, Troakes C, Al-Sarraj S, Sastre M, Gveric D, Gentleman S, Roufosse C, Osborn M, Alegre-Abarrategui J. [J Pathol. 2022 Jun;257\(2\):198-217. doi: 10.1002/path.5878. Epub 2022 Mar 31. PMID: 35107828; PMCID: PMC9325073.](#)

**Histopathological correlates of haemorrhagic lesions on ex vivo magnetic resonance imaging in immunized Alzheimer's disease cases.** Scherlek AA, Kozberg MG, Nicoll JAR, Perosa V, Freeze WM, van der Weerd L, Bacskai BJ, Greenberg SM, Frosch MP, Boche D, van Veluw SJ. [Brain Commun. 2022 Feb 3;4\(1\):fcac021. doi: 10.1093/braincomms/fcac021. PMID: 35224489; PMCID: PMC8870423.](#)

## 2021 Publications

### Tumour

**Human Endogenous Retrovirus Type K Promotes Proliferation and Confers Sensitivity to Antiretroviral Drugs in Merlin-Negative Schwannoma and Meningioma.** Maze EA, Agit B, Reeves S, Hilton DA, Parkinson DB, Laraba L, Ercolano E, Kurian KM, Hanemann CO, Belshaw RD, Ammoun S. *Cancer Res.* 2022 Jan 15;82(2):235-247. doi: [10.1158/0008-5472.CAN-20-3857](https://doi.org/10.1158/0008-5472.CAN-20-3857). Epub 2021 Dec 1. PMID: [34853069](https://pubmed.ncbi.nlm.nih.gov/34853069/).

**Advanced Molecular Characterization Using Digital Spatial Profiling Technology on Immunooncology Targets in Methylated Compared with Unmethylated IDH-Wildtype Glioblastoma.** Barber H, Tofias A, Lander B, Daniels A, Gong J, Ren Y, Ren X, Liang Y, White P, Kurian KM. *J Oncol.* 2021 Feb 24;2021:8819702. doi: [10.1155/2021/8819702](https://doi.org/10.1155/2021/8819702). PMID: [33995529](https://pubmed.ncbi.nlm.nih.gov/33995529/); PMCID: [PMC8096575](https://pubmed.ncbi.nlm.nih.gov/PMC8096575/).

**Biomarkers for differentiating grade II meningiomas from grade I: a systematic review.** Sofela AA, McGavin L, Whitfield PC, Hanemann CO. *Br J Neurosurg.* 2021 Jun 21:1-7. doi: [10.1080/02688697.2021.1940853](https://doi.org/10.1080/02688697.2021.1940853). Epub ahead of print. PMID: [34148477](https://pubmed.ncbi.nlm.nih.gov/34148477/).

**Fibulin-2: A Novel Biomarker for Differentiating Grade II from Grade I Meningiomas.** Sofela AA, Hilton DA, Ammoun S, Baiz D, Adams CL, Ercolano E, Jenkinson MD, Kurian KM, Teo M, Whitfield PC, Sahm F, Hanemann CO. *Int J Mol Sci.* 2021 Jan 8;22(2):560. doi: [10.3390/ijms22020560](https://doi.org/10.3390/ijms22020560). PMID: [33429944](https://pubmed.ncbi.nlm.nih.gov/33429944/); PMCID: [PMC7827565](https://pubmed.ncbi.nlm.nih.gov/PMC7827565/).

**Prevalence of BRAFV600 in glioma and use of BRAF Inhibitors in patients with BRAFV600 mutation-positive glioma: systematic review.** Andrews LJ, Thornton ZA, Saincher SS, Yao IY, Dawson S, McGuinness LA, Jones HE, Jefferies S, Short SC, Cheng HY, McAleenan A, Higgins JPT, Kurian KM. *Neuro Oncol.* 2021 Oct 28;noab247. doi: [10.1093/neuonc/noab247](https://doi.org/10.1093/neuonc/noab247). Epub ahead of print. PMID: [34718782](https://pubmed.ncbi.nlm.nih.gov/34718782/).

**Distinct DNA Methylation Patterns of Subependymal Giant Cell Astrocytomas in Tuberous Sclerosis Complex.** Bongaarts A, Mijnsbergen C, Anink JJ, Jansen FE, Spliet WGM, den Dunnen WFA, Coras R, Blümcke I, Paulus W, Gruber VE, Scholl T, Hainfellner JA, Feucht M, Kotulska K, Jozwiak S, Grajkowska W, Buccoliero AM, Caporalini C, Giordano F, Genitori L, Söylemezoğlu F, Pimentel J, Jones DTW, Scicluna BP, Schouten-van Meeteren AYN, Mühlebner A, Mills JD, Aronica E. *Cell Mol Neurobiol.* 2021 Oct 28. doi: [10.1007/s10571-021-01157-5](https://doi.org/10.1007/s10571-021-01157-5). Epub ahead of print. PMID: [34709498](https://pubmed.ncbi.nlm.nih.gov/34709498/).

**A rare case of paediatric astroblastoma with concomitant MN1-GTSE1 and EWSR1-PATZ1 gene fusions altering management.** Chadda KR, Holland K, Scoffings D, Dean A, Pickles JC, Behjati S, Jacques TS, Trotman J, Tarpey P, Allinson K, Murray MJ; Genomics England Research Consortium. *Neuropathol Appl Neurobiol.* 2021 Feb 3. doi: [10.1111/nan.12701](https://doi.org/10.1111/nan.12701). Epub ahead of print. PMID: [33534137](https://pubmed.ncbi.nlm.nih.gov/33534137/).

**Emergence and maintenance of actionable genetic drivers at medulloblastoma relapse.** Richardson S, Hill RM, Kui C, Lindsey JC, Grabovksa Y, Keeling C, Pease L, Bashton M, Crosier S, Vinci M, André N, Figarella-Branger D, Hansford JR, Lastowska M, Zakrzewski K, Jorgensen M, Pickles JC, Taylor MD, Pfister SM, Wharton SB, Pizer B, Michalski A, Joshi A, Jacques TS, Hicks D, Schwalbe EC, Williamson D, Ramaswamy V, Bailey S, Clifford SC. *Neuro Oncol.* 2021 Jul 17;noab178. doi: [10.1093/neuonc/noab178](https://doi.org/10.1093/neuonc/noab178). Epub ahead of print. PMID: [34272868](https://pubmed.ncbi.nlm.nih.gov/34272868/).

**Therapeutic implications of improved molecular diagnostics for rare CNS embryonal tumor entities: results of an international, retrospective study.** von Hoff K, Haberler C, Schmitt-Hoffner F, Schepke E, de Rojas T, Jacobs S, Zapotocky M, Sumerauer D, Perek-Polnik M, Dufour C, van Vuurden D, Slavc I, Gojo J, Pickles JC, Gerber NU, Massimino M, Gil-da-Costa MJ, Garami M, Kumirova E, Sehested A, Scheie D, Cruz O, Moreno L, Cho J, Zeller B, Bovenschen N, Grotzer M, Alderete D, Snuderl M, Zheludkova O, Golanov A, Okonechnikov K, Mynarek M, Juhnke BO, Rutkowski S, Schüller U, Pizer B, von Zezschwitz B, Kwiecien R, Wechsung M, Konietschke F, Hwang EI, Sturm D, Pfister SM, von Deimling A, Rushing EJ, Ryzhova M, Hauser P, Łastowska M, Wesseling P, Giangaspero F, Hawkins C, Figarella-Branger D, Eberhart C, Burger P, Gessi M, Korshunov A, Jacques TS, Capper D, Pietsch T, Kool M. [Neuro Oncol. 2021 Sep 1;23\(9\):1597-1611. doi: 10.1093/neuonc/noab136. PMID: 34077956; PMCID: PMC8408859.](#)

**The white matter is a pro-differentiative niche for glioblastoma.** Brooks LJ, Clements MP, Burden JJ, Kocher D, Richards L, Devesa SC, Zakka L, Woodberry M, Ellis M, Jaunmuktane Z, Brandner S, Morrison G, Pollard SM, Dirks PB, Marguerat S, Parrinello S. [Nat Commun. 2021 Apr 12;12\(1\):2184. doi: 10.1038/s41467-021-22225-w. PMID: 33846316; PMCID: PMC8042097.](#)

**Recurrent fusions in PLAGL1 define a distinct subset of pediatric-type supratentorial neuroepithelial tumors.** Sievers P, Henneken SC, Blume C, Sill M, Schrimpf D, Stichel D, Okonechnikov K, Reuss DE, Benzel J, Maaß KK, Kool M, Sturm D, Zheng T, Ghasemi DR, Kohlhof-Meinecke P, Cruz O, Suñol M, Lavarino C, Ruf V, Boldt HB, Pagès M, Pouget C, Schweizer L, Kranendonk MEG, Akhtar N, Bunkowski S, Stadelmann C, Schüller U, Mueller WC, Dohmen H, Acker T, Harter PN, Mawrin C, Beschorner R, Brandner S, Snuderl M, Abdullaev Z, Aldape K, Gilbert MR, Armstrong TS, Ellison DW, Capper D, Ichimura K, Reifenberger G, Grundy RG, Jabado N, Krskova L, Zapotocky M, Vicha A, Varlet P, Wesseling P, Rutkowski S, Korshunov A, Wick W, Pfister SM, Jones DTW, von Deimling A, Pajtler KW, Sahm F. [Acta Neuropathol. 2021 Nov;142\(5\):827-839. doi: 10.1007/s00401-021-02356-6. Epub 2021 Aug 5. PMID: 34355256; PMCID: PMC8500895.](#)

**Cross-Species Genomics Reveals Oncogenic Dependencies in ZFTA/C11orf95 Fusion-Positive Supratentorial Ependymomas.** Zheng T, Ghasemi DR, Okonechnikov K, Korshunov A, Sill M, Maass KK, Benites Goncalves da Silva P, Ryzhova M, Gojo J, Stichel D, Arabzade A, Kupp R, Benzel J, Taya S, Adachi T, Shiraishi R, Gerber NU, Sturm D, Ecker J, Sievers P, Selt F, Chapman R, Haberler C, Figarella-Branger D, Reifenberger G, Fleischhack G, Rutkowski S, Donson AM, Ramaswamy V, Capper D, Ellison DW, Herold-Mende CC, Schüller U, Brandner S, Driever PH, Kros JM, Snuderl M, Milde T, Grundy RG, Hoshino M, Mack SC, Gilbertson RJ, Jones DTW, Kool M, von Deimling A, Pfister SM, Sahm F, Kawauchi D, Pajtler KW. [Cancer Discov. 2021 Sep;11\(9\):2230-2247. doi: 10.1158/2159-8290.CD-20-0963. Epub 2021 Apr 20. PMID: 33879448.](#)

**Glioblastomas with primitive neuronal component harbor a distinct methylation and copy-number profile with inactivation of TP53, PTEN, and RB1.** Suwala AK, Stichel D, Schrimpf D, Maas SLN, Sill M, Dohmen H, Banan R, Reinhardt A, Sievers P, Hinz F, Blattner-Johnson M, Hartmann C, Schweizer L, Boldt HB, Kristensen BW, Schittenhelm J, Wood MD, Chotard G, Bjergvig R, Das A, Tabori U, Hasselblatt M, Korshunov A, Abdullaev Z, Quezado M, Aldape K, Harter PN, Snuderl M, Hench J, Frank S, Acker T, Brandner S, Winkler F, Wesseling P, Pfister SM, Reuss DE, Wick W, von Deimling A, Jones DTW, Sahm F. [Acta Neuropathol. 2021 Jul;142\(1\):179-189. doi: 10.1007/s00401-021-02302-6. Epub 2021 Apr 19. PMID: 33876327; PMCID: PMC8217054.](#)

**Clear cell meningiomas are defined by a highly distinct DNA methylation profile and mutations in SMARCE1.** Sievers P, Sill M, Blume C, Tauziède-Espariat A, Schrimpf D, Stichel D, Reuss DE, Dogan H, Hartmann C, Mawrin C, Hasselblatt M, Stummer W, Schick U, Hench J, Frank S, Ketter R, Schweizer L,

Schittenhelm J, Puget S, Brandner S, Jaunmuktane Z, Küsters B, Abdullaev Z, Pekmezci M, Snuderl M, Ratliff M, Herold-Mende C, Unterberg A, Aldape K, Ellison DW, Wesseling P, Reifenberger G, Wick W, Perry A, Varlet P, Pfister SM, Jones DTW, von Deimling A, Sahm F; [German Consortium "Aggressive Meningiomas"](#). *Acta Neuropathol.* 2021 Feb;141(2):281-290. doi: [10.1007/s00401-020-02247-2](#). Epub 2020 Dec 14. PMID: [33319313](#); PMCID: [PMC7847462](#).

**Inhibition of microglial EZH2 leads to anti-tumoral effects in pediatric diffuse midline gliomas.** Keane L, Cheray M, Saidi D, Kirby C, Friess L, Gonzalez-Rodriguez P, Gerdes ME, Grabert K, McColl BW, Joseph B. *Neurooncol Adv.* 2021 Jul 5;3(1):vdab096. doi: [10.1093/noajnl/vdab096](#). PMID: [34485907](#); PMCID: [PMC8409254](#).

## Non-tumour

**Hypothesis: Entrapment of lipoprotein particles in the brain causes Alzheimer's disease.** Boche D, & Nicoll J. A. (2021). *Free Neuropathology*, 2, 30. <https://doi.org/10.17879/freeneuropathology-2021-3459>

**Iron Deposition in the Brain After Aneurysmal Subarachnoid Hemorrhage.** Galea I, Durnford A, Glazier J, Mitchell S, Kohli S, Foulkes L, Norman J, Darekar A, Love S, Bulters DO, Nicoll JAR, Boche D. *Stroke.* 2022 May;53(5):1633-1642. doi: [10.1161/STROKEAHA.121.036645](#). Epub 2022 Feb 24. PMID: [35196874](#).

**Immune environment of the brain in schizophrenia and during the psychotic episode: A human post-mortem study.** De Picker LJ, Victoriano GM, Richards R, Gorvett AJ, Lyons S, Buckland GR, Tofani T, Norman JL, Chatelet DS, Nicoll JAR, Boche D. *Brain Behav Immun.* 2021 Oct;97:319-327. doi: [10.1016/j.bbi.2021.07.017](#). Epub 2021 Jul 30. PMID: [34339805](#); PMCID: [PMC8475749](#).

**Collaborative Neuropathology Network Characterizing Outcomes of TBI (CONNECT-TBI).** Smith DH, Dollé JP, Ameen-Ali KE, Bretzin A, Cortes E, Crary JF, Dams-O'Connor K, Diaz-Arrastia R, Edlow BL, Folkert R, Hazrati LN, Hinds SR, Iacono D, Johnson VE, Keene CD, Kofler J, Kovacs GG, Lee EB, Manley G, Meaney D, Montine T, Okonkwo DO, Perl DP, Trojanowski JQ, Wiebe DJ, Yaffe K, McCabe T, Stewart W. *Acta Neuropathol Commun.* 2021 Mar 1;9(1):32. doi: [10.1186/s40478-021-01122-9](#). PMID: [33648593](#); PMCID: [PMC7919306](#).

**Alzheimer's disease neuropathological change three decades after iatrogenic amyloid- $\beta$  transmission.** Jaunmuktane Z, Banerjee G, Paine S, Parry-Jones A, Rudge P, Grieve J, Toma AK, Farmer SF, Mead S, Houlden H, Werring DJ, Brandner S. *Acta Neuropathol.* 2021 Jul;142(1):211-215. doi: [10.1007/s00401-021-02326-y](#). Epub 2021 May 28. PMID: [34047818](#); PMCID: [PMC8217014](#).

**Innate Immune Anti-Inflammatory Response in Human Spontaneous Intracerebral Hemorrhage.** Shtaya A, Bridges LR, Williams R, Trippier S, Zhang L, Pereira AC, Nicoll JAR, Boche D, Hainsworth AH. *Stroke.* 2021 Nov;52(11):3613-3623. doi: [10.1161/STROKEAHA.121.034673](#). Epub 2021 Jul 20. PMID: [34281379](#); PMCID: [PMC7611898](#).



## 2020 Publications

### Tumour

**Frequent alterations in p16/CDKN2A identified by immunohistochemistry and FISH in chordoma.**

Cottone L, Eden N, Usher I, Lombard P, Ye H, Ligamari L, Lindsay D, Brandner S, Pižem J, Pillay N, Tirabosco R, Amary F, Flanagan AM. *J Pathol Clin Res.* 2020 Apr;6(2):113-123. doi: [10.1002/cjp2.156](https://doi.org/10.1002/cjp2.156). Epub 2020 Jan 8. PMID: 31916407; PMCID: PMC7164370.

**CTNNB1 mutations are clonal in adamantinomatous craniopharyngioma.** Apps JR, Stache C,

Gonzalez-Meljem JM, Gutteridge A, Chalker J, Jacques TS, Forshew T, Hölsken A, Martinez-Barbera JP. *Neuropathol Appl Neurobiol.* 2020 Aug;46(5):510-514. doi: [10.1111/nan.12613](https://doi.org/10.1111/nan.12613). Epub 2020 Apr 2. PMID: 32125720; PMCID: PMC7610141.

**GATA-4, a potential novel therapeutic target for high-grade meningioma, regulates miR-497, a potential novel circulating biomarker for high-grade meningioma.** Negroni C, Hilton DA, Ercolano E,

Adams CL, Kurian KM, Baiz D, Hanemann CO. *EBioMedicine.* 2020 Sep;59:102941. doi: [10.1016/j.ebiom.2020.102941](https://doi.org/10.1016/j.ebiom.2020.102941). Epub 2020 Aug 15. PMID: 32810829; PMCID: PMC7452696.

**The Potential of MLN3651 in Combination with Selumetinib as a Treatment for Merlin-Deficient Meningioma.** Lyons Rimmer J, Ercolano E, Baiz D, Makhija M, Berger A, Sells T, Stroud S, Hilton D,

Adams CL, Hanemann CO. *Cancers (Basel).* 2020 Jun 30;12(7):1744. doi: [10.3390/cancers12071744](https://doi.org/10.3390/cancers12071744). PMID: 32629964; PMCID: PMC7407567.

**A Rapid Robust Method for Subgrouping Non-NF2 Meningiomas According to Genotype and Detection of Lower Levels of M2 Macrophages in AKT1 E17K Mutated Tumours.** Adams CL,

Ercolano E, Ferluga S, Sofela A, Dave F, Negroni C, Kurian KM, Hilton DA, Hanemann CO. *Int J Mol Sci.* 2020 Feb 13;21(4):1273. doi: [10.3390/ijms21041273](https://doi.org/10.3390/ijms21041273). PMID: 32070062; PMCID: PMC7073007.

**Constitutive activation of the EGFR-STAT1 axis increases proliferation of meningioma tumor cells.**

Ferluga S, Baiz D, Hilton DA, Adams CL, Ercolano E, Dunn J, Bassiri K, Kurian KM, Hanemann CO. *Neurooncol Adv.* 2020 Jan 21;2(1):vd008. doi: [10.1093/oaajnl/vd008](https://doi.org/10.1093/oaajnl/vd008). PMID: 32642677; PMCID: PMC7212880.

**Integration and Comparison of Transcriptomic and Proteomic Data for Meningioma.** Dunn J, Lenis

VP, Hilton DA, Warta R, Herold-Mende C, Hanemann CO, Futschik ME. *Cancers (Basel).* 2020 Nov 5;12(11):3270. doi: [10.3390/cancers12113270](https://doi.org/10.3390/cancers12113270). PMID: 33167358; PMCID: PMC7694371.

**Methylation-based algorithms for diagnosis: experience from neuro-oncology.** Pickles JC, Stone TJ,

Jacques TS. *J Pathol.* 2020 Apr;250(5):510-517. doi: [10.1002/path.5397](https://doi.org/10.1002/path.5397). Epub 2020 Mar 10. PMID: 32057098.

**A case series of Diffuse Glioneuronal Tumours with Oligodendroglioma-like features and Nuclear Clusters (DGONC).** Pickles JC, Mankad K, Aizpurua M, Paine SM, Bridges LR, Carceller F, Szychoł E,

Walker M, Fairchild AR, Mistry T, Ogunbiyi O, Rolland A, Stone TJ, Dryden C, Addy D, Garimberti E, Chalker J, Sahm F, Jones DT, Hargrave D, Jacques TS. *Neuropathol Appl Neurobiol.* 2020 Dec 15. doi: [10.1111/nan.12680](https://doi.org/10.1111/nan.12680). Epub ahead of print. PMID: 33325069.

**Pediatric pan-central nervous system tumor analysis of immune-cell infiltration identifies**

**correlates of antitumor immunity.** Grabovska Y, Mackay A, O'Hare P, Crosier S, Finetti M, Schwalbe EC, Pickles JC, Fairchild AR, Avery A, Cockle J, Hill R, Lindsey J, Hicks D, Kristiansen M, Chalker J, Anderson J, Hargrave D, Jacques TS, Straathof K, Bailey S, Jones C, Clifford SC, Williamson D. *Nat*

[Commun. 2020 Aug 28;11\(1\):4324. doi: 10.1038/s41467-020-18070-y. PMID: 32859926; PMCID: PMC7455736.](#)

**Infant High-Grade Gliomas Comprise Multiple Subgroups Characterized by Novel Targetable Gene Fusions and Favorable Outcomes.** Clarke M, Mackay A, Ismer B, Pickles JC, Tatevossian RG, Newman S, Bale TA, Stoler I, Izquierdo E, Temelso S, Carvalho DM, Molinari V, Burford A, Howell L, Virasami A, Fairchild AR, Avery A, Chalker J, Kristiansen M, Haupfear K, Dalton JD, Orisme W, Wen J, Hubank M, Kurian KM, Rowe C, Maybury M, Crosier S, Knipstein J, Schüller U, Kordes U, Kram DE, Snuderl M, Bridges L, Martin AJ, Doey LJ, Al-Sarraj S, Chandler C, Zebian B, Cairns C, Natrajan R, Boulton JKR, Robinson SP, Sill M, Dunkel IJ, Gilheeny SW, Rosenblum MK, Hughes D, Proszek PZ, Macdonald TJ, Preusser M, Haberler C, Slavc I, Packer R, Ng HK, Caspi S, Popović M, Faganel Kotnik B, Wood MD, Baird L, Davare MA, Solomon DA, Olsen TK, Brandal P, Farrell M, Cryan JB, Capra M, Karremann M, Schittenhelm J, Schuhmann MU, Ebinger M, Dinjens WNM, Kerl K, Hettmer S, Pietsch T, Andreiuolo F, Driever PH, Korshunov A, Hiddingh L, Worst BC, Sturm D, Zuckermann M, Witt O, Bloom T, Mitchell C, Miele E, Colafati GS, Diomedi-Camassei F, Bailey S, Moore AS, Hassall TEG, Lowis SP, Tsoli M, Cowley MJ, Ziegler DS, Karajannis MA, Aquilina K, Hargrave DR, Carceller F, Marshall LV, von Deimling A, Kramm CM, Pfister SM, Sahm F, Baker SJ, Mastronuzzi A, Carai A, Vinci M, Capper D, Popov S, Ellison DW, Jacques TS, Jones DTW, Jones C. [Cancer Discov. 2020 Jul;10\(7\):942-963. doi: 10.1158/2159-8290.CD-19-1030. Epub 2020 Apr 1. PMID: 32238360.](#)

## Non-Tumour

**Medullary tyrosine hydroxylase catecholaminergic neuronal populations in sudden unexpected death in epilepsy.** Patodia S, Tan I, Ellis M, Somani A, Scheffer IE, Sisodiya SM, Thom M. [Brain Pathol. 2021 Jan;31\(1\):133-143. doi: 10.1111/bpa.12891. Epub 2020 Sep 9. PMID: 32852867.](#)

**MRI and pathology correlations in the medulla in sudden unexpected death in epilepsy (SUDEP): a postmortem study.** Patodia S, Tachrount M, Somani A, Scheffer I, Yousry T, Golay X, Sisodiya SM, Thom M. [Neuropathol Appl Neurobiol. 2021 Feb;47\(1\):157-170. doi: 10.1111/nan.12638. Epub 2020 Jul 15. PMID: 32559314; PMCID: PMC7749076.](#)

**Neuropeptide depletion in the amygdala in sudden unexpected death in epilepsy: A postmortem study.** Somani A, Perry C, Patodia S, Michalak Z, Ellis M, Sisodiya SM, Thom M. [Epilepsia. 2020 Feb;61\(2\):310-318. doi: 10.1111/epi.16425. Epub 2020 Jan 20. PMID: 31958887.](#)

**Bim contributes to the progression of Huntington's disease-associated phenotypes.** Roberts SL, Evans T, Yang Y, Fu Y, Button RW, Siphthorpe RJ, Cowan K, Valionyte E, Anichtchik O, Li H, Lu B, Luo S. [Hum Mol Genet. 2020 Jan 15;29\(2\):216-227. doi: 10.1093/hmg/ddz275. PMID: 31813995.](#)

**Microglial contribution to synaptic uptake in the prefrontal cortex in schizophrenia.** Tziouras M, Stevenson AJ, Boche D, Spires-Jones TL. [Neuropathol Appl Neurobiol. 2021 Feb;47\(2\):346-351. doi: 10.1111/nan.12660. Epub 2020 Oct 5. PMID: 32892388.](#)

**Tau immunophenotypes in chronic traumatic encephalopathy recapitulate those of ageing and Alzheimer's disease.** Arena JD, Smith DH, Lee EB, Gibbons GS, Irwin DJ, Robinson JL, Lee VM, Trojanowski JQ, Stewart W, Johnson VE. [Brain. 2020 May 1;143\(5\):1572-1587. doi: 10.1093/brain/awaa071. PMID: 32390044; PMCID: PMC7241956.](#)

**Astroglial tau pathology alone preferentially concentrates at sulcal depths in chronic traumatic encephalopathy neuropathologic change.** Arena JD, Johnson VE, Lee EB, Gibbons GS, Smith DH,

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**Extracellular matrix-inducing Sox9 promotes both basal progenitor proliferation and gliogenesis in developing neocortex.** Güven A, Kalebic N, Long KR, Florio M, Vaid S, Brandl H, Stenzel D, Huttner WB. [Elife. 2020 Mar 19;9:e49808. doi: 10.7554/eLife.49808. PMID: 32191207; PMCID: PMC7105383.](#)

**Serotonin Receptor 2A Activation Promotes Evolutionarily Relevant Basal Progenitor Proliferation in the Developing Neocortex.** Xing L, Kalebic N, Namba T, Vaid S, Wimberger P, Huttner WB. [Neuron. 2020 Dec 23;108\(6\):1113-1129.e6. doi: 10.1016/j.neuron.2020.09.034. Epub 2020 Oct 19. PMID: 33080227.](#)

**Microvascular injury and hypoxic damage: emerging neuropathological signatures in COVID-19.** Jaunmuktane Z, Mahadeva U, Green A, Sekhawat V, Barrett NA, Childs L, Shankar-Hari M, Thom M, Jäger HR, Brandner S. [Acta Neuropathol. 2020 Sep;140\(3\):397-400. doi: 10.1007/s00401-020-02190-2. Epub 2020 Jul 8. PMID: 32638079; PMCID: PMC7340758.](#)

**The emerging spectrum of COVID-19 neurology: clinical, radiological and laboratory findings.** Paterson RW, Brown RL, Benjamin L, Nortley R, Wiethoff S, Bharucha T, Jayaseelan DL, Kumar G, Raftopoulos RE, Zambreanu L, Vivekanandam V, Khoo A, Galdes R, Chinthapalli K, Boyd E, Tuzlali H, Price G, Christofi G, Morrow J, McNamara P, McLoughlin B, Lim ST, Mehta PR, Levee V, Keddie S, Yong W, Trip SA, Foulkes AJM, Hotton G, Miller TD, Everitt AD, Carswell C, Davies NWS, Yoong M, Attwell D, Sreedharan J, Silber E, Schott JM, Chandratheva A, Perry RJ, Simister R, Checkley A, Longley N, Farmer SF, Carletti F, Houlihan C, Thom M, Lunn MP, Spillane J, Howard R, Vincent A, Werring DJ, Hoskote C, Jäger HR, Manji H, Zandi MS. [Brain. 2020 Oct 1;143\(10\):3104-3120. doi: 10.1093/brain/awaa240. PMID: 32637987; PMCID: PMC7454352.](#)

## 2019 Publications

### Tumour

**Non-secreting pituitary tumours characterised by enhanced expression of YAP/TAZ.** Xekouki P, Lodge EJ, Matschke J, Santambrogio A, Apps JR, Sharif A, Jacques TS, Aylwin S, Prevot V, Li R, Flitsch J, Bornstein SR, Theodoropoulou M, Andoniadou CL. [Endocr Relat Cancer. 2019 Jan 1;26\(1\):215-225. doi: 10.1530/ERC-18-0330. PMID: 30139767; PMCID: PMC6215911.](#)

**Clinically Actionable Insights into Initial and Matched Recurrent Glioblastomas to Inform Novel Treatment Approaches.** Ellis HP, McLnerney CE, Schrimpf D, Sahm F, Stupnikov A, Wadsley M, Wragg C, White P, Prise KM, McArt DG, Kurian KM. [J Oncol. 2019 Dec 31;2019:4878547. doi: 10.1155/2019/4878547. PMID: 32082376; PMCID: PMC7012245.](#)

**DNA methylation-based profiling for paediatric CNS tumour diagnosis and treatment: a population-based study.** Pickles JC, Fairchild AR, Stone TJ, Brownlee L, Merve A, Yasin SA, Avery A, Ahmed SW, Ogunbiyi O, Gonzalez Zapata J, Peary AF, Edwards M, Wilkhu L, Dryden C, Ladon D, Kristiansen M, Rowe C, Kurian KM, Nicoll JAR, Mitchell C, Bloom T, Hilton DA, Al-Sarraj S, Doey L, Johns PN, Bridges LR, Chakrabarty A, Ismail A, Rathi N, Syed K, Lammie GA, Limback-Stanic C, Smith C, Torgersen A, Rae F, Hill RM, Clifford SC, Grabovska Y, Williamson D, Clarke M, Jones C, Capper D, Sill M, von Deimling A, Pfister SM, Jones DTW, Hargrave D, Chalker J, Jacques TS. [Lancet Child](#)



[Adolesc Health. 2020 Feb;4\(2\):121-130. doi: 10.1016/S2352-4642\(19\)30342-6. Epub 2019 Nov 27.](#)  
[Erratum in: Lancet Child Adolesc Health. 2019 Dec 23;: PMID: 31786093.](#)

**DNA methylation-based classification of central nervous system tumours.** Capper D, Jones DTW, Sill M, Hovestadt V, Schrimpf D, Sturm D, Koelsche C, Sahm F, Chavez L, Reuss DE, Kratz A, Wefers AK, Huang K, Pajtler KW, Schweizer L, Stichel D, Olar A, Engel NW, Lindenberg K, Harter PN, Braczynski AK, Plate KH, Dohmen H, Garvalov BK, Coras R, Hölsken A, Hewer E, Bewerunge-Hudler M, Schick M, Fischer R, Beschorner R, Schittenhelm J, Staszewski O, Wani K, Varlet P, Pages M, Temming P, Lohmann D, Selt F, Witt H, Milde T, Witt O, Aronica E, Giangaspero F, Rushing E, Scheurlen W, Geisenberger C, Rodriguez FJ, Becker A, Preusser M, Haberler C, Bjerkvig R, Cryan J, Farrell M, Deckert M, Hench J, Frank S, Serrano J, Kannan K, Tsirigos A, Brück W, Hofer S, Brehmer S, Seiz-Rosenhagen M, Hänggi D, Hans V, Rozsnoki S, Hansford JR, Kohlhof P, Kristensen BW, Lechner M, Lopes B, Mawrin C, Ketter R, Kulozik A, Khatib Z, Heppner F, Koch A, Jouvet A, Keohane C, Mühleisen H, Mueller W, Pohl U, Prinz M, Benner A, Zapatka M, Gottardo NG, Driever PH, Kramm CM, Müller HL, Rutkowski S, von Hoff K, Frühwald MC, Gnekow A, Fleischhack G, Tippelt S, Calaminus G, Monoranu CM, Perry A, Jones C, Jacques TS, Radlwimmer B, Gessi M, Pietsch T, Schramm J, Schackert G, Westphal M, Reifenberger G, Wesseling P, Weller M, Collins VP, Blümcke I, Bendszus M, Debus J, Huang A, Jabado N, Northcott PA, Paulus W, Gajjar A, Robinson GW, Taylor MD, Jaunmuktane Z, Ryzhova M, Platten M, Unterberg A, Wick W, Karajannis MA, Mittelbronn M, Acker T, Hartmann C, Aldape K, Schüller U, Buslei R, Lichter P, Kool M, Herold-Mende C, Ellison DW, Hasselblatt M, Snuderl M, Brandner S, Korshunov A, von Deimling A, Pfister SM. [Nature. 2018 Mar 22;555\(7697\):469-474. doi: 10.1038/nature26000. Epub 2018 Mar 14. PMID: 29539639; PMCID: PMC6093218.](#)

**Molecular Subtypes and Genomic Profile of Primary Central Nervous System Lymphoma.** Bödör C, Alpár D, Marosvári D, Galik B, Rajnai H, Bártai B, Nagy Á, Kajtár B, Burján A, Deák B, Schneider T, Alizadeh H, Matolcsy A, Brandner S, Storhoff J, Chen N, Liu M, Ghali N, Csala I, Bagó AG, Gyenesei A, Reiniger L. [J Neuropathol Exp Neurol. 2020 Feb 1;79\(2\):176-183. doi: 10.1093/jnen/nlz125. PMID: 31886867.](#)

**c-MYC overexpression induces choroid plexus papillomas through a T-cell mediated inflammatory mechanism.** Merve A, Zhang X, Pomella N, Acquati S, Hoeck JD, Dumas A, Rosser G, Li Y, Jeyapalan J, Vicenzi S, Fan Q, Yang ZJ, Sabò A, Sheer D, Behrens A, Marino S. [Acta Neuropathol Commun. 2019 May 29;7\(1\):95. doi: 10.1186/s40478-019-0739-x. Erratum in: Acta Neuropathol Commun. 2019 Aug 14;7\(1\):131. Erratum in: Acta Neuropathol Commun. 2019 Nov 14;7\(1\):179. PMID: 31142360; PMCID: PMC6540455.](#)

**Redistribution of EZH2 promotes malignant phenotypes by rewiring developmental programmes.** Mortimer T, Wainwright EN, Patel H, Siow BM, Jaunmuktane Z, Brandner S, Scaffidi P. [EMBO Rep. 2019 Oct 4;20\(10\):e48155. doi: 10.15252/embr.201948155. Epub 2019 Aug 29. PMID: 31468686; PMCID: PMC6776892.](#)

**Isomorphic diffuse glioma is a morphologically and molecularly distinct tumour entity with recurrent gene fusions of MYBL1 or MYB and a benign disease course.** Wefers AK, Stichel D, Schrimpf D, Coras R, Pages M, Tauziède-Espariat A, Varlet P, Schwarz D, Söylemezoglu F, Pohl U, Pimentel J, Meyer J, Hewer E, Japp A, Joshi A, Reuss DE, Reinhardt A, Sievers P, Casalini MB, Ebrahimi A, Huang K, Koelsche C, Low HL, Rebelo O, Marnoto D, Becker AJ, Staszewski O, Mittelbronn M, Hasselblatt M, Schittenhelm J, Cheesman E, de Oliveira RS, Queiroz RGP, Valera ET, Hans VH, Korshunov A, Olar A, Ligon KL, Pfister SM, Jaunmuktane Z, Brandner S, Tatevossian RG, Ellison DW, Jacques TS, Honavar M, Aronica E, Thom M, Sahm F, von Deimling A, Jones DTW, Blumcke I, Capper

D. *Acta Neuropathol.* 2020 Jan;139(1):193-209. doi: [10.1007/s00401-019-02078-w](https://doi.org/10.1007/s00401-019-02078-w). Epub 2019 Sep 28. PMID: 31563982; PMCID: PMC7477753.

**Posterior fossa pilocytic astrocytomas with oligodendroglial features show frequent FGFR1 activation via fusion or mutation.** Sievers P, Schrimpf D, Stichel D, Reuss DE, Hasselblatt M, Hagel C, Staszewski O, Hench J, Frank S, Brandner S, Korshunov A, Wick W, Pfister SM, Reifenberger G, von Deimling A, Sahm F, Jones DTW. *Acta Neuropathol.* 2020 Feb;139(2):403-406. doi: [10.1007/s00401-019-02097-7](https://doi.org/10.1007/s00401-019-02097-7). Epub 2019 Nov 15. PMID: 31729570.

**Rosette-forming glioneuronal tumors share a distinct DNA methylation profile and mutations in FGFR1, with recurrent co-mutation of PIK3CA and NF1.** Sievers P, Appay R, Schrimpf D, Stichel D, Reuss DE, Wefers AK, Reinhardt A, Coras R, Ruf VC, Schmid S, de Stricker K, Boldt HB, Kristensen BW, Petersen JK, Uhløi BP, Gardberg M, Aronica E, Hasselblatt M, Brück W, Bielle F, Mokhtari K, Lhermitte B, Wick W, Herold-Mende C, Hänggi D, Brandner S, Giangaspero F, Capper D, Rushing E, Wesseling P, Pfister SM, Figarella-Branger D, von Deimling A, Sahm F, Jones DTW. *Acta Neuropathol.* 2019 Sep;138(3):497-504. doi: [10.1007/s00401-019-02038-4](https://doi.org/10.1007/s00401-019-02038-4). Epub 2019 Jun 27. PMID: 31250151.

**MYCN amplification drives an aggressive form of spinal ependymoma.** Ghasemi DR, Sill M, Okonechnikov K, Korshunov A, Yip S, Schutz PW, Scheie D, Kruse A, Harter PN, Kastelan M, Wagner M, Hartmann C, Benzel J, Maass KK, Khasraw M, Sträter R, Thomas C, Paulus W, Kratz CP, Witt H, Kawauchi D, Herold-Mende C, Sahm F, Brandner S, Kool M, Jones DTW, von Deimling A, Pfister SM, Reuss DE, Pajtler KW. *Acta Neuropathol.* 2019 Dec;138(6):1075-1089. doi: [10.1007/s00401-019-02056-2](https://doi.org/10.1007/s00401-019-02056-2). Epub 2019 Aug 14. PMID: 31414211; PMCID: PMC6851394.

**Methylation array profiling of adult brain tumours: diagnostic outcomes in a large, single centre.** Jaunmuktane Z, Capper D, Jones DTW, Schrimpf D, Sill M, Dutt M, Suraweera N, Pfister SM, von Deimling A, Brandner S. *Acta Neuropathol Commun.* 2019 Feb 20;7(1):24. doi: [10.1186/s40478-019-0668-8](https://doi.org/10.1186/s40478-019-0668-8). PMID: 30786920; PMCID: PMC6381711.

## Non-Tumour

**Hippocampal morphometry in sudden and unexpected death in epilepsy.** Somani A, Zborovschi AB, Liu Y, Patodia S, Michalak Z, Sisodiya SM, Thom M. *Neurology.* 2019 Aug 20;93(8):e804-e814. doi: [10.1212/WNL.0000000000007969](https://doi.org/10.1212/WNL.0000000000007969). Epub 2019 Jul 25. PMID: 31345959; PMCID: PMC6711661.

**Characterisation of medullary astrocytic populations in respiratory nuclei and alterations in sudden unexpected death in epilepsy.** Patodia S, Paradiso B, Ellis M, Somani A, Sisodiya SM, Devinsky O, Thom M. *Epilepsy Res.* 2019 Nov;157:106213. doi: [10.1016/j.epilepsyres.2019.106213](https://doi.org/10.1016/j.epilepsyres.2019.106213). Epub 2019 Oct 1. PMID: 31610338; PMCID: PMC7002840.

**Chronic traumatic encephalopathy is a common co-morbidity, but less frequent primary dementia in former soccer and rugby players.** Lee EB, Kinch K, Johnson VE, Trojanowski JQ, Smith DH, Stewart W. *Acta Neuropathol.* 2019 Sep;138(3):389-399. doi: [10.1007/s00401-019-02030-y](https://doi.org/10.1007/s00401-019-02030-y). Epub 2019 Jun 1. PMID: 31152201; PMCID: PMC6689293.

**Induction of a transmissible tau pathology by traumatic brain injury.** Zanier ER, Bertani I, Sammali E, Pischiutta F, Chiaravalloti MA, Vegliante G, Masone A, Corbelli A, Smith DH, Menon DK, Stocchetti N, Fiordaliso F, De Simoni MG, Stewart W, Chiesa R. *Brain.* 2018 Sep 1;141(9):2685-2699. doi: [10.1093/brain/awy193](https://doi.org/10.1093/brain/awy193). PMID: 30084913; PMCID: PMC6113646.

**Rapid neuroinflammatory changes in human acute intracerebral hemorrhage.** Shtaya A, Bridges LR, Esiri MM, Lam-Wong J, Nicoll JAR, Boche D, Hainsworth AH. *Ann Clin Transl Neurol.* 2019 Aug;6(8):1465-1479. doi: [10.1002/acn3.50842](https://doi.org/10.1002/acn3.50842). Epub 2019 Jul 13. PMID: [31402627](https://pubmed.ncbi.nlm.nih.gov/31402627/); PMCID: [PMC6689697](https://pubmed.ncbi.nlm.nih.gov/PMC6689697/).

**Biallelic expansion of an intronic repeat in RFC1 is a common cause of late-onset ataxia.** Cortese A, Simone R, Sullivan R, Vandrovцова J, Tariq H, Yau WY, Humphrey J, Jaunmuktane Z, Sivakumar P, Polke J, Ilyas M, Tribollet E, Tomaselli PJ, Devigili G, Callegari I, Versino M, Salpietro V, Efthymiou S, Kaski D, Wood NW, Andrade NS, Buglo E, Rebelo A, Rossor AM, Bronstein A, Fratta P, Marques WJ, Züchner S, Reilly MM, Houlden H. *Nat Genet.* 2019 Apr;51(4):649-658. doi: [10.1038/s41588-019-0372-4](https://doi.org/10.1038/s41588-019-0372-4). Epub 2019 Mar 29. Erratum in: *Nat Genet.* 2019 May;51(5):920. PMID: [30926972](https://pubmed.ncbi.nlm.nih.gov/30926972/); PMCID: [PMC6709527](https://pubmed.ncbi.nlm.nih.gov/PMC6709527/).

## 2018 Publications

### Tumour

**Evaluation of the quality of RNA extracted from archival FFPE glioblastoma and epilepsy surgical samples for gene expression assays.** Haynes HR, Killick-Cole CL, Hares KM, Redondo J, Kemp KC, Moutasim KA, Faulkner C, Wilkins A, Kurian KM. *J Clin Pathol.* 2018 Aug;71(8):695-701. doi: [10.1136/jclinpath-2017-204969](https://doi.org/10.1136/jclinpath-2017-204969). Epub 2018 Feb 20. PMID: [29463577](https://pubmed.ncbi.nlm.nih.gov/29463577/).

**shRNA-mediated PPAR $\alpha$  knockdown in human glioma stem cells reduces in vitro proliferation and inhibits orthotopic xenograft tumour growth.** Haynes HR, Scott HL, Killick-Cole CL, Shaw G, Brend T, Hares KM, Redondo J, Kemp KC, Ballesteros LS, Herman A, Cordero-Llana O, Singleton WG, Mills F, Batstone T, Bulstrode H, Kauppinen RA, Wurdak H, Uney JB, Short SC, Wilkins A, Kurian KM. *J Pathol.* 2019 Apr;247(4):422-434. doi: [10.1002/path.5201](https://doi.org/10.1002/path.5201). Epub 2018 Dec 27. PMID: [30565681](https://pubmed.ncbi.nlm.nih.gov/30565681/); PMCID: [PMC6462812](https://pubmed.ncbi.nlm.nih.gov/PMC6462812/).

**Glioma through the looking GLASS: molecular evolution of diffuse gliomas and the Glioma Longitudinal Analysis Consortium.** GLASS Consortium. *Neuro Oncol.* 2018 Jun 18;20(7):873-884. doi: [10.1093/neuonc/noy020](https://doi.org/10.1093/neuonc/noy020). PMID: [29432615](https://pubmed.ncbi.nlm.nih.gov/29432615/); PMCID: [PMC6280138](https://pubmed.ncbi.nlm.nih.gov/PMC6280138/).

**Tumour compartment transcriptomics demonstrates the activation of inflammatory and odontogenic programmes in human adamantinomatous craniopharyngioma and identifies the MAPK/ERK pathway as a novel therapeutic target.** Apps JR, Carreno G, Gonzalez-Meljem JM, Haston S, Guiho R, Cooper JE, Manshaei S, Jani N, Hölsken A, Pettorini B, Beynon RJ, Simpson DM, Fraser HC, Hong Y, Hallang S, Stone TJ, Virasami A, Donson AM, Jones D, Aquilina K, Spoudeas H, Joshi AR, Grundy R, Storer LCD, Korbonits M, Hilton DA, Tossell K, Thavaraj S, Ungless MA, Gil J, Buslei R, Hankinson T, Hargrave D, Goding C, Andoniadou CL, Brogan P, Jacques TS, Williams HJ, Martinez-Barbera JP. *Acta Neuropathol.* 2018 May;135(5):757-777. doi: [10.1007/s00401-018-1830-2](https://doi.org/10.1007/s00401-018-1830-2). Epub 2018 Mar 14. PMID: [29541918](https://pubmed.ncbi.nlm.nih.gov/29541918/); PMCID: [PMC5904225](https://pubmed.ncbi.nlm.nih.gov/PMC5904225/).

**Proteomic analysis discovers the differential expression of novel proteins and phosphoproteins in meningioma including NEK9, HK2 and SET and deregulation of RNA metabolism.** Dunn J, Ferluga S, Sharma V, Futschik M, Hilton DA, Adams CL, Lasonder E, Hanemann CO. *EBioMedicine.* 2019 Feb;40:77-91. doi: [10.1016/j.ebiom.2018.12.048](https://doi.org/10.1016/j.ebiom.2018.12.048). Epub 2018 Dec 26. PMID: [30594554](https://pubmed.ncbi.nlm.nih.gov/30594554/); PMCID: [PMC6412084](https://pubmed.ncbi.nlm.nih.gov/PMC6412084/).

**CNS embryonal tumours: WHO 2016 and beyond.** Pickles JC, Hawkins C, Pietsch T, Jacques TS. *Neuropathol Appl Neurobiol.* 2018 Feb;44(2):151-162. doi: [10.1111/nan.12443](https://doi.org/10.1111/nan.12443). PMID: 28949028.

**Early Wound Site Seeding in a Patient with Central Nervous System High-Grade Neuroepithelial Tumor with BCOR Alteration.** Kirkman MA, Pickles JC, Fairchild AR, Avery A, Pietsch T, Jacques TS, Aquilina K. *World Neurosurg.* 2018 Aug;116:279-284. doi: [10.1016/j.wneu.2018.05.158](https://doi.org/10.1016/j.wneu.2018.05.158). Epub 2018 May 30. PMID: 29859355.

**The pathology of lumbosacral lipomas: macroscopic and microscopic disparity have implications for embryogenesis and mode of clinical deterioration.** Jones V, Wykes V, Cohen N, Thompson D, Jacques TS. *Histopathology.* 2018 Jun;72(7):1136-1144. doi: [10.1111/his.13469](https://doi.org/10.1111/his.13469). Epub 2018 Mar 15. PMID: 29350777; PMCID: PMC5969216.

## Non-Tumour

**TREM2 expression in the human brain: a marker of monocyte recruitment?** Fahrenhold M, Rakic S, Classey J, Brayne C, Ince PG, Nicoll JAR, Boche D; MRC-CFAS. *Brain Pathol.* 2018 Sep;28(5):595-602. doi: [10.1111/bpa.12564](https://doi.org/10.1111/bpa.12564). Epub 2017 Oct 30. PMID: 28987033; PMCID: PMC6221091.

**Systemic infection modifies the neuroinflammatory response in late stage Alzheimer's disease.** Rakic S, Hung YMA, Smith M, So D, Tayler HM, Varney W, Wild J, Harris S, Holmes C, Love S, Stewart W, Nicoll JAR, Boche D. *Acta Neuropathol Commun.* 2018 Sep 7;6(1):88. doi: [10.1186/s40478-018-0592-3](https://doi.org/10.1186/s40478-018-0592-3). PMID: 30193587; PMCID: PMC6127939.

**Dissecting the neuronal vulnerability underpinning Alpers' syndrome: a clinical and neuropathological study.** Hayhurst H, Anagnostou ME, Bogle HJ, Grady JP, Taylor RW, Bindoff LA, McFarland R, Turnbull DM, Lax NZ. *Brain Pathol.* 2019 Jan;29(1):97-113. doi: [10.1111/bpa.12640](https://doi.org/10.1111/bpa.12640). Epub 2018 Oct 9. PMID: 30021052; PMCID: PMC7379503.

**The ventrolateral medulla and medullary raphe in sudden unexpected death in epilepsy.** Patodia S, Somani A, O'Hare M, Venkateswaran R, Liu J, Michalak Z, Ellis M, Scheffer IE, Diehl B, Sisodiya SM, Thom M. *Brain.* 2018 Jun 1;141(6):1719-1733. doi: [10.1093/brain/awy078](https://doi.org/10.1093/brain/awy078). PMID: 29608654; PMCID: PMC5972615.

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**The aftermath of boxing revisited: identifying chronic traumatic encephalopathy pathology in the original Corsellis boxer series.** Goldfinger MH, Ling H, Tilley BS, Liu AKL, Davey K, Holton JL, Revesz T, Gentleman SM. *Acta Neuropathol.* 2018 Dec;136(6):973-974. doi: [10.1007/s00401-018-1926-8](https://doi.org/10.1007/s00401-018-1926-8). Epub 2018 Oct 30. PMID: 30377771; PMCID: PMC6280830.

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### Tumour

**H3F3A (Histone 3.3) G34W Immunohistochemistry: A Reliable Marker Defining Benign and Malignant Giant Cell Tumor of Bone.** Amary F, Berisha F, Ye H, Gupta M, Gutteridge A, Baumhoer D, Gibbons R, Tirabosco R, O'Donnell P, Flanagan AM. [Am J Surg Pathol. 2017 Aug;41\(8\):1059-1068. doi: 10.1097/PAS.0000000000000859. PMID: 28505000; PMCID: PMC5510691.](#)

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**DNA methylation-based classification and grading system for meningioma: a multicentre, retrospective analysis.** Sahm F, Schrimpf D, Stichel D, Jones DTW, Hielscher T, Schefzyk S, Okonechnikov K, Koelsche C, Reuss DE, Capper D, Sturm D, Wirsching HG, Berghoff AS, Baumgarten P, Kratz A, Huang K, Wefers AK, Hovestadt V, Sill M, Ellis HP, Kurian KM, Okuducu AF, Jungk C, Drueschler K, Schick M, Bewerunge-Hudler M, Mawrin C, Seiz-Rosenhagen M, Ketter R, Simon M, Westphal M, Lamszus K, Becker A, Koch A, Schittenhelm J, Rushing EJ, Collins VP, Brehmer S, Chavez L, Platten M, Hänggi D, Unterberg A, Paulus W, Wick W, Pfister SM, Mittelbronn M, Preusser M, Herold-Mende C, Weller M, von Deimling A. [Lancet Oncol. 2017 May;18\(5\):682-694. doi: 10.1016/S1470-2045\(17\)30155-9. Epub 2017 Mar 15. PMID: 28314689.](#)

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**Neuropathology of SUDEP: Role of inflammation, blood-brain barrier impairment, and hypoxia.** Michalak Z, Obari D, Ellis M, Thom M, Sisodiya SM. [Neurology. 2017 Feb 7;88\(6\):551-561. doi: 10.1212/WNL.0000000000003584. Epub 2017 Jan 13. PMID: 28087824; PMCID: PMC5304466.](#)



**Microglia and Brain Plasticity in Acute Psychosis and Schizophrenia Illness Course: A Meta-Review.** De Picker LJ, Morrens M, Chance SA, Boche D. [Front Psychiatry. 2017 Nov 16;8:238. doi: 10.3389/fpsyt.2017.00238. PMID: 29201010; PMCID: PMC5696326.](#)

**Clinical, pathological and functional characterization of riboflavin-responsive neuropathy.** Manole A, Jaunmuktane Z, Hargreaves I, Ludtmann MHR, Salpietro V, Bello OD, Pope S, Pandraud A, Horga A, Scalco RS, Li A, Ashokkumar B, Lourenço CM, Heales S, Horvath R, Chinnery PF, Toro C, Singleton AB, Jacques TS, Abramov AY, Muntoni F, Hanna MG, Reilly MM, Revesz T, Kullmann DM, Jepson JEC, Houlden H. [Brain. 2017 Nov 1;140\(11\):2820-2837. doi: 10.1093/brain/awx231. PMID: 29053833; PMCID: PMC5808726.](#)

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### Non-Tumour

**Heme-Hemopexin Scavenging Is Active in the Brain and Associates With Outcome After Subarachnoid Hemorrhage.** Garland P, Durnford AJ, Okemefuna AI, Dunbar J, Nicoll JA, Galea J, Boche D, Bulters DO, Galea I. [Stroke. 2016 Mar;47\(3\):872-6. doi: 10.1161/STROKEAHA.115.011956. Epub 2016 Jan 14. PMID: 26768209.](#)

**Purkinje cell injury, structural plasticity and fusion in patients with Friedreich's ataxia.** Kemp KC, Cook AJ, Redondo J, Kurian KM, Scolding NJ, Wilkins A. [Acta Neuropathol Commun. 2016 May 23;4\(1\):53. doi: 10.1186/s40478-016-0326-3. Erratum in: Acta Neuropathol Commun. 2016;4\(1\):67. PMID: 27215193; PMCID: PMC4877974.](#)

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## 2015 Publications

### Tumour

**Current Challenges in Glioblastoma: Intratumour Heterogeneity, Residual Disease, and Models to Predict Disease Recurrence.** Ellis HP, Greenslade M, Powell B, Spiteri I, Sottoriva A, Kurian KM. [Front Oncol. 2015 Nov 16;5:251. doi: 10.3389/fonc.2015.00251. PMID: 26636033; PMCID: PMC4644939.](#)

### Non-Tumour

**Effect of amyloid- $\beta$  (A $\beta$ ) immunization on hyperphosphorylated tau: a potential role for glycogen synthase kinase (GSK)-3 $\beta$ .** Amin J, Paquet C, Baker A, Asuni AA, Love S, Holmes C, Hugon J, Nicoll JA,

Boche D. [Neuropathol Appl Neurobiol. 2015 Jun;41\(4\):445-57. doi: 10.1111/nan.12205. PMID: 25486988.](#)

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**Haemoglobin scavenging after subarachnoid haemorrhage.** Durnford A, Dunbar J, Galea J, Bulters D, Nicoll JA, Boche D, Galea I. [Acta Neurochir Suppl. 2015;120:51-4. doi: 10.1007/978-3-319-04981-6\\_9. PMID: 25366599.](#)

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**Axonal myelin increase in the callosal genu in depression but not schizophrenia.** Williams MR, Sharma P, Fung KL, Pearce RK, Hirsch SR, Maier M. [Psychol Med. 2015 Jul;45\(10\):2145-55. doi: 10.1017/S0033291715000136. Epub 2015 Feb 25. PMID: 25712170.](#)

## 2013 Publications

### Non-Tumour

**Inflammatory components in human Alzheimer's disease and after active amyloid- $\beta$ 42 immunization.** Zotova E, Bharambe V, Cheaveau M, Morgan W, Holmes C, Harris S, Neal JW, Love S, Nicoll JA, Boche D. [Brain. 2013 Sep;136\(Pt 9\):2677-96. doi: 10.1093/brain/awt210. Epub 2013 Aug 13. PMID: 23943781.](#)

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