

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, Ligammari 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/naajnl/vd008](https://doi.org/10.1093/naajnl/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, Szychot 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. Tzioras 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,

Trojanowski JQ, Stewart W. [Brain Commun. 2020 Dec 3;2\(2\):fcaa210. doi: 10.1093/braincomms/fcaa210. PMID: 33426528; PMCID: PMC7784042.](#)

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, McInerney 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.eplepsyres.2019.106213](https://doi.org/10.1016/j.eplepsyres.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 α 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.

Pyroglutamate and Isoaspartate modified Amyloid-Beta in ageing and Alzheimer's disease. Moro ML, Phillips AS, Gaimster K, Paul C, Mudher A, Nicoll JAR, Boche D. *Acta Neuropathol Commun.* 2018 Jan 3;6(1):3. doi: [10.1186/s40478-017-0505-x](https://doi.org/10.1186/s40478-017-0505-x). PMID: 29298722; PMCID: PMC5753481.

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.

Evidence of amyloid- β cerebral amyloid angiopathy transmission through neurosurgery. Jaunmuktane Z, Quaegebeur A, Taipa R, Viana-Baptista M, Barbosa R, Koriath C, Scot R, Mead S, Brandner S. *Acta Neuropathol.* 2018 May;135(5):671-679. doi: [10.1007/s00401-018-1822-2](https://doi.org/10.1007/s00401-018-1822-2). Epub 2018 Feb 15. PMID: 29450646; PMCID: PMC5904220.

Extracellular Matrix Components HAPLN1, Lumican, and Collagen I Cause Hyaluronic Acid-Dependent Folding of the Developing Human Neocortex. Long KR, Newland B, Florio M, Kalebic N,

Langen B, Kolterer A, Wimberger P, Huttner WB. [Neuron. 2018 Aug 22;99\(4\):702-719.e6. doi: 10.1016/j.neuron.2018.07.013. Epub 2018 Aug 2. PMID: 30078576.](#)

2017 Publications

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.](#)

The driver landscape of sporadic chordoma. Tarpey PS, Behjati S, Young MD, Martincorena I, Alexandrov LB, Farndon SJ, Guzzo C, Hardy C, Latimer C, Butler AP, Teague JW, Shlien A, Futreal PA, Shah S, Bashashati A, Jamshidi F, Nielsen TO, Huntsman D, Baumhoer D, Brandner S, Wunder J, Dickson B, Cogswell P, Sommer J, Phillips JJ, Amary MF, Tirabosco R, Pillay N, Yip S, Stratton MR, Flanagan AM, Campbell PJ. [Nat Commun. 2017 Oct 12;8\(1\):890. doi: 10.1038/s41467-017-01026-0. PMID: 29026114; PMCID: PMC5638846.](#)

The transcription factor PPAR α is overexpressed and is associated with a favourable prognosis in IDH-wildtype primary glioblastoma. Haynes HR, White P, Hares KM, Redondo J, Kemp KC, Singleton WGB, Killick-Cole CL, Stevens JR, Garadi K, Guglani S, Wilkins A, Kurian KM. [Histopathology. 2017 Jun;70\(7\):1030-1043. doi: 10.1111/his.13142. Epub 2017 Mar 23. PMID: 27926792.](#)

MAPK pathway control of stem cell proliferation and differentiation in the embryonic pituitary provides insights into the pathogenesis of papillary craniopharyngioma. Haston S, Pozzi S, Carreno G, Manshaei S, Panousopoulos L, Gonzalez-Meljem JM, Apps JR, Virasami A, Thavaraj S, Gutteridge A, Forshew T, Marais R, Brandner S, Jacques TS, Andoniadou CL, Martinez-Barbera JP. [Development. 2017 Jun 15;144\(12\):2141-2152. doi: 10.1242/dev.150490. Epub 2017 May 15. PMID: 28506993; PMCID: PMC5482995.](#)

DNA methylation-based classification and grading system for meningioma: a multicentre, retrospective analysis. Sahn 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.](#)

Non-Tumour

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.](#)

2016 Publications

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.](#)

Audit of practice in sudden unexpected death in epilepsy (SUDEP) post mortems and neuropathological findings. Thom M, Michalak Z, Wright G, Dawson T, Hilton D, Joshi A, Diehl B, Koepf M, Lhatoo S, Sander JW, Sisodiya SM. [Neuropathol Appl Neurobiol. 2016 Aug;42\(5\):463-76. doi: 10.1111/nan.12265. Epub 2015 Sep 25. PMID: 26300477; PMCID: PMC4864133.](#)

Neuropathological criteria of anti-IgLON5-related tauopathy. Gelpi E, Höftberger R, Graus F, Ling H, Holton JL, Dawson T, Popovic M, Pretnar-Oblak J, Högl B, Schmutzhard E, Poewe W, Ricken G, Santamaria J, Dalmau J, Budka H, Revesz T, Kovacs GG. [Acta Neuropathol. 2016 Oct;132\(4\):531-43. doi: 10.1007/s00401-016-1591-8. Epub 2016 Jun 29. PMID: 27358064; PMCID: PMC5023728.](#)

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- β (A β) immunization on hyperphosphorylated tau: a potential role for glycogen synthase kinase (GSK)-3 β . 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.](#)

Effect of active A β immunotherapy on neurons in human Alzheimer's disease. Paquet C, Amin J, Mouton-Liger F, Nasser M, Love S, Gray F, Pickering RM, Nicoll JA, Holmes C, Hugon J, Boche D. [J Pathol. 2015 Apr;235\(5\):721-30. doi: 10.1002/path.4491. Epub 2015 Jan 7. PMID: 25430817.](#)

Novel association between microglia and stem cells in human gliomas: A contributor to tumour proliferation? Noorani I, Petty G, Grundy PL, Sharpe G, Willaime-Morawek S, Harris S, Thomas GJ, Nicoll JA, Boche D. [J Pathol Clin Res. 2015 Jan 14;1\(2\):67-75. doi: 10.1002/cjp2.7. PMID: 27499894; PMCID: PMC4858136.](#)

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.](#)

2014 Publications

Non-Tumour

Fibrillary astrocytes are decreased in the subgenual cingulate in schizophrenia. Williams M, Pearce RK, Hirsch SR, Ansorge O, Thom M, Maier M. [Eur Arch Psychiatry Clin Neurosci. 2014 Jun;264\(4\):357-62. doi: 10.1007/s00406-013-0482-4. Epub 2013 Dec 29. PMID: 24374936.](#)

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- β 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.](#)

Midbrain dopamine function in schizophrenia and depression: a post-mortem and positron emission tomographic imaging study. Howes OD, Williams M, Ibrahim K, Leung G, Egerton A, McGuire PK, Turkheimer F. [Brain. 2013 Nov;136\(Pt 11\):3242-51. doi: 10.1093/brain/awt264. Epub 2013 Oct 3. PMID: 24097339; PMCID: PMC3808688.](#)

Neuropathological changes in the substantia nigra in schizophrenia but not depression. Williams MR, Galvin K, O'Sullivan B, MacDonald CD, Ching EW, Turkheimer F, Howes OD, Pearce RK, Hirsch SR, Maier M. [Eur Arch Psychiatry Clin Neurosci. 2014 Jun;264\(4\):285-96. doi: 10.1007/s00406-013-0479-z. Epub 2013 Dec 29. PMID: 24374935.](#)