

Katja Kobow, PhD  
Scientific Publications  
h-index = 25

**2023**

1. Deep histopathology genotype-phenotype analysis of focal cortical dysplasia type II differentiates between the GATOR1-altered autophagocytic subtype IIa and MTOR-altered migration deficient subtype IIb. Honke J, Hoffmann L, Coras R, **Kobow K**, Leu C, Pieper T, Hartlieb T, Bien CG, Woermann F, Cloppenburg T, Kalbhenn T, Gaballa A, Hamer H, Brandner S, Rössler K, Dörfler A, Rampp S, Lemke JR, Baldassari S, Baulac S, Lal D, Nürnberg P, Blümcke I. **Acta Neuropathol Commun.** 2023;11(1):179. doi: [10.1186/s40478-023-01675-x](https://doi.org/10.1186/s40478-023-01675-x).
2. Small leucine-rich proteoglycans inhibit CNS regeneration by modifying the structural and mechanical properties of the lesion environment. Kolb J, Tsata V, John N, Kim K, Möckel C, Rosso G, Kurbel V, Parmar A, Sharma G, Karandasheva K, Abuhattum S, Lyraki O, Beck T, Müller P, Schlußler R, Frischknecht R, Wehner A, Krombholz N, Steigenberger B, Beis D, Takeoka A, Blümcke I, Möllmert S, Singh K, Guck J, **Kobow K**, Wehner D. **Nat Commun.** 2023;14(1):6814. doi: [10.1038/s41467-023-42339-7](https://doi.org/10.1038/s41467-023-42339-7).
3. The specific DNA methylation landscape in focal cortical dysplasia ILAE type 3D. Wang DD, Katoch M, Jabari S, Blumcke I, Blumenthal DB, Lu DH, Coras R, Wang YJ, Shi J, Zhou WJ, **Kobow K**, Piao YS. **Acta Neuropathol Commun.** 2023; 11(1):129. doi: [10.1186/s40478-023-01618-6](https://doi.org/10.1186/s40478-023-01618-6)
4. D-galactose Supplementation for the Treatment of Mild Malformation of Cortical Development with Oligodendroglial Hyperplasia in Epilepsy (MOGHE): A Pilot Trial of Precision Medicine After Epilepsy Surgery. Aledo-Serrano Á, Valls-Carbó A, Fenger CD, Groeppel G, Hartlieb T, Pascual I, Herraes E, Cabal B, García-Morales I, Toledano R, Budke M, Beltran-Corbellini Á, Baldassari S, Coras R, **Kobow K**, Herrera DM, Del Barrio A, Dahl HA, Del Pino I, Baulac S, Blumcke I, Møller RS, Gil-Nagel A. **Neurotherapeutics.** 2023;20(5):1294-1304. doi: [10.1007/s13311-023-01395-z](https://doi.org/10.1007/s13311-023-01395-z).
5. Ganglioglioma with adverse clinical outcome and atypical histopathological features were defined by alterations in PTPN11/KRAS/NF1 and other RAS-/MAP-Kinase pathway genes. Hoffmann L, Coras R, **Kobow K**, López-Rivera JA, Lal D, Leu C, Najm I, Nürnberg P, Herms J, Harter PN, Bien CG, Kalbhenn T, Müller M, Pieper T, Hartlieb T, Kudernatsch M, Hamer H, Brandner S, Rössler K, Blümcke I, Jabari S. **Acta Neuropathol.** 2023 Jun;145(6):815-827. doi: [10.1007/s00401-023-02561-5](https://doi.org/10.1007/s00401-023-02561-5).

**2022**

6. Ontology-based feature engineering in machine learning workflows for heterogeneous epilepsy patient records. Sahoo SS, **Kobow K**, Zhang J, Buchhalter J, Dayyani M, Upadhyaya DP, Prantzas K, Bhattacharjee M, Blumcke I, Wiebe S, Lhatoo SD. **Sci Rep.** 2022;12(1):19430. doi: [10.1038/s41598-022-23101-3](https://doi.org/10.1038/s41598-022-23101-3).
7. The genomic landscape across 474 surgically accessible epileptogenic human brain lesions. J. A. López-Rivera, C. Leu, M. Macnee, J. Khoury, L. Hoffmann, R. Coras, **K. Kobow**, N. Bhattarai, E. Pérez-Palma, H. Hamer, S. Brandner, K. Rössler, C. G. Bien, T. Kalbhenn, T. Pieper, T. Hartlieb, E. Butler, G. Genovese, K. Becker, J. Altmüller, L.-M. Niestroj, L. Ferguson, R. M. Busch, P. Nürnberg, I. Najm, I. Blümcke, D. Lal. **Brain.** 2023;146(4):1342-1356. doi: [10.1093/brain/awac376](https://doi.org/10.1093/brain/awac376).
8. The ILAE consensus classification of focal cortical dysplasia: An update proposed by an ad hoc task force of the ILAE diagnostic methods commission. Najm I, Lal D, Alonso Vanegas M, Cendes F, Lopes-Cendes I, Palmioli A, Paglioli E, Sarnat HB, Walsh CA,

- Wiebe S, Aronica E, Baulac S, Coras R, **Kobow K**, Cross JH, Garbelli R, Holthausen H, Rössler K, Thom M, El-Osta A, Lee JH, Miyata H, Guerrini R, Piao YS, Zhou D, Blümcke I. **Epilepsia**. 2022; doi: [10.1111/epi.17301](https://doi.org/10.1111/epi.17301). (IF 5.87)
9. DNA methylation-based classification of malformations of cortical development in the human brain. Jabari S\*, **Kobow K\***, Pieper T, Hartlieb T, Kudernatsch M, Polster T, Bien CG, Kalbhenn T, Simon M, Hamer H, Rössler K, Feucht M, Mühlebner A, Najm I, Peixoto-Santos JE, Gil-Nagel A, Delgado RT, Aledo-Serrano A, Hou Y, Coras R, von Deimling A, Blümcke I. **Acta Neuropathol**. 2022;143(1):93-104. doi: [10.1007/s00401-021-02386-0](https://doi.org/10.1007/s00401-021-02386-0) (IF 17.09)
  10. Multilobar unilateral hypoplasia with emphasis on the posterior quadrant and severe epilepsy in children with FCD ILAE Type 1A. Holthausen H, Coras R, Tang Y, Bai L, Wang I, Pieper T, Kudernatsch M, Hartlieb T, Staudt M, Winkler P, Hofer W, Jabari S, **Kobow K**, Blümcke I. **Epilepsia** 2022; 63(1):42-60. doi: [10.1111/epi.17114](https://doi.org/10.1111/epi.17114). (IF 5.87)
  11. Glucocorticoid modulation of synaptic plasticity in the human temporal cortex of epilepsy patients: Does chronic stress contribute to memory impairment? Brandner S, Schroeter S, Çalışkan G, Salar S, **Kobow K**, Coras R, Blümcke I, Hamer H, Schwarz M, Buchfelder M, Maslarova A. **Epilepsia** 2022; 63(1):209-221. doi: [10.1111/epi.17107](https://doi.org/10.1111/epi.17107) (IF 5.87)

#### 2021

12. Experimental Epileptogenesis in a Cell Culture Model of Primary Neurons from Rat Brain: A Temporal Multi-Scale Study. Jablonski J\*, Hoffmann L\*, Blümcke I, Fejtova A, Uebe S, Ekici AB, Gnatkovsky V, **Kobow K**. **Cells** 2021;10(11), 3004. doi: [10.3390/cells10113004](https://doi.org/10.3390/cells10113004). (IF 6.6)
13. Frequent SLC35A2 brain mosaicism in mild malformation of cortical development with oligodendroglial hyperplasia in epilepsy (MOGHE). Bonduelle T, Hartlieb T, Baldassari S, Sim NS, Kim SH, Kang HC, **Kobow K**, Coras R, Chipaux M, Dorfmueller G, Adle-Biassette H, Aronica E, Lee JH, Blumcke I, Baulac S. **Acta Neuropathol Commun**. 2021; 9(1):3. doi: [10.1186/s40478-020-01085-3](https://doi.org/10.1186/s40478-020-01085-3). (IF 7.80)

#### 2020

14. Histological correlates of hippocampal magnetization transfer images in drug-resistant temporal lobe epilepsy patients. Peixoto-Santos JE, Velasco TR, Carlotti CG, Assirati JA, Rezende GHSE, **Kobow K**, Coras R, Blümcke I, Salmon CEG, Santos ACD, Leite JP. **Neuroimage Clin**. 2020; 28:102463. doi: [10.1016/j.nicl.2020.102463](https://doi.org/10.1016/j.nicl.2020.102463). (IF 4.67)
15. Mosaic trisomy of chromosome 1q in human brain tissue associates with unilateral polymicrogyria, very early-onset focal epilepsy, and severe developmental delay. **Kobow K\***, Jabari S\*, Pieper T, Kudernatsch M, Polster T, Woermann FG, Kalbhenn T, Hamer H, Rössler K, Mühlebner A, Spliet WGM, Feucht M, Hou Y, Stichel D, Korshunov A, Sahm F, Coras R, Blümcke I\*, von Deimling A\*. **Acta Neuropathol**. 2020; 140(6):881-891. doi: [10.1007/s00401-020-02228-5](https://doi.org/10.1007/s00401-020-02228-5). (IF 17.09)
16. Same same but different: a web-based deep learning application for the histopathologic distinction of cortical malformations. Kubach J, Muehlechner-Farngruber A, Soylemezoglu F, Miyata H, Niehusmann P, Honavar M, Rogerio F, Kim S-H, Aronica E, Garbelli R, Vilz S, Popp A, Walcher S, Neuner C, Scholz M, Kuerten S, Schropp V, Roeder S, Eichhorn P, Eckstein M, Brehmer A, **Kobow K**, Coras R, Bluemcke I, Jabari S. **Epilepsia**. 2020; 61(3):421-432. doi: [10.1111/epi.16447](https://doi.org/10.1111/epi.16447). (IF 5.87)

#### 2019

17. Assessment of genetic variant burden in epilepsy-associated brain lesions. Niestroj LM, May P, Artomov M, **Kobow K**, Coras R, Pérez-Palma E, Altmüller J, Thiele H, Nürnberg P, Leu C, Palotie A, Daly MJ, Klein KM, Beschorner R, Weber YG, Blümcke

I, Lal D. **Eur J Hum Genet.** 2019; 27(11):1738-1744. [doi: 10.1038/s41431-019-0484-4](https://doi.org/10.1038/s41431-019-0484-4). (IF 2.71)

18. Genomic DNA methylation distinguishes subtypes of human focal cortical dysplasia. **Kobow K**, Ziemann M, Kaipananickal H, Khurana I, Mühlebner A, Feucht M, Hainfellner JA, Czech T, Aronica E, Pieper T, Holthausen H, Kudernatsch M, Hamer H, Kasper BS, Rössler K, Conti V, Guerrini R, Coras R, Blümcke I, El-Osta A, Kaspi A. **Epilepsia.** 2019; 60(6):1091-1103. [doi: 10.1111/epi.14934](https://doi.org/10.1111/epi.14934). (IF 6.04)
19. A comprehensive clinico-pathological and genetic evaluation of bottom-of-sulcus focal cortical dysplasia in patients with difficult-to-localize focal epilepsy. Ying Z, Wang I, Blümcke I, Bulacio J, Alexopoulos A, Jehi L, Bingaman W, Gonzalez-Martinez J, **Kobow K**, Niestroj LM, Lal D, Koelble K, Najm I. **Epileptic Disord.** 2019; 21(1):65-77. [doi: 10.1684/epd.2019.1028](https://doi.org/10.1684/epd.2019.1028). (IF 1.82)

#### 2017

20. Epigenetic control of epilepsy target genes contributes to a cellular memory of epileptogenesis in cultured rat hippocampal neurons. Kiese K, Jablonski J, Hackenbracht J, Wrosch JK, Groemer TW, Kornhuber J, Blümcke I, **Kobow K**. **Acta Neuropathol Commun.** 2017; 5(1):79. [doi: 10.1186/s40478-017-0485-x](https://doi.org/10.1186/s40478-017-0485-x). (IF 5.41)
21. Histopathological Findings in Brain Tissue Obtained during Epilepsy Surgery. Blumcke I, Spreafico R, Haaker G, Coras R, **Kobow K**, Bien CG, Pfäfflin M, Elger C, Widman G, Schramm J, Becker A, Braun KP, Leijten F, Baayen JC, Aronica E, Chassoux F, Hamer H, Stefan H, Rössler K, Thom M, Walker MC, Sisodiya SM, Duncan JS, McEvoy AW, Pieper T, Holthausen H, Kudernatsch M, Meencke HJ, Kahane P, Schulze-Bonhage A, Zentner J, Heiland DH, Urbach H, Steinhoff BJ, Bast T, Tassi L, Lo Russo G, Özkara C, Oz B, Krsek P, Vogelgesang S, Runge U, Lerche H, Weber Y, Honavar M, Pimentel J, Arzimanoglou A, Ulate-Campos A, Noachtar S, Hartl E, Schijns O, Guerrini R, Barba C, Jacques TS, Cross JH, Feucht M, Mühlebner A, Grunwald T, Trinkka E, Winkler PA, Gil-Nagel A, Toledano Delgado R, Mayer T, Lutz M, Zountsas B, Garganis K, Rosenow F, Hermsen A, von Oertzen TJ, Diepgen TL, Avanzini G; EEBB Consortium. **N Engl J Med.** 2017; 377(17):1648-1656. [doi: 10.1056/NEJMoa1703784](https://doi.org/10.1056/NEJMoa1703784). (IF 79.26)

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22. Dynamic Regulation of the Adenosine Kinase Gene during Early Postnatal Brain Development and Maturation. Kiese K, Jablonski J, Boison D, **Kobow K**. **Front Mol Neurosci.** 2016; 9:99. [doi: 10.3389/fnmol.2016.00099](https://doi.org/10.3389/fnmol.2016.00099). (IF 5.08)
23. Etiology matters - Genomic DNA Methylation Patterns in Three Rat Models of Acquired Epilepsy. Dębski KJ, Pitkanen A, Puhakka N, Bot AM, Khurana I, Harikrishnan KN, Ziemann M, Kaspi A, El-Osta A, Lukasiuk K, **Kobow K**. **Sci Rep.** 2016;6:25668. [doi: 10.1038/srep25668](https://doi.org/10.1038/srep25668). (IF 4.26)

#### 2015

24. No evidence for human papillomavirus infection in focal cortical dysplasia IIb. Coras R, Korn K, Bien CG, Kalbhenn T, Rössler K, **Kobow K**, Giedl J, Fleckenstein B, Blumcke I. **Ann Neurol.** 2015;77(2):312-9. [doi: 10.1002/ana.24328](https://doi.org/10.1002/ana.24328). (IF 9.64)

#### 2013

25. Epilepsy, hippocampal sclerosis and febrile seizures linked by common genetic variation around SCN1A. Kasperaviciute D, Catarino CB, Matarin M, Leu C, Novy J, Tostevin A, Leal B, Hessel EV, Hallmann K, Hildebrand MS, Dahl HH, Ryten M, Trabzuni D, Ramasamy A, Alhusaini S, Doherty CP, Dorn T, Hansen J, Krämer G, Steinhoff BJ, Zumsteg D, Duncan S, Kälviäinen RK, Eriksson KJ, Kantanen AM, Pandolfo M, Gruber-Sedlmayr U, Schlachter K, Reinthaler EM, Stogmann E, Zimprich F, Théâtre E, Smith C, O'Brien TJ, Meng Tan K, Petrovski S, Robbiano A, Paravidino R, Zara F, Striano P, Sperling MR, Buono RJ, Hakonarson H, Chaves J, Costa PP,

Silva BM, da Silva AM, de Graan PN, Koeleman BP, Becker A, Schoch S, von Lehe M, Reif PS, Rosenow F, Becker F, Weber Y, Lerche H, Rössler K, Buchfelder M, Hamer HM, **Kobow K**, Coras R, Blümcke I, Scheffer IE, Berkovic SF, Weale ME; UK Brain Expression Consortium, Delanty N, Depondt C, Cavalleri GL, Kunz WS, Sisodiya SM. **Brain**. 2013 Oct;136(Pt 10):3140-50. [doi: 10.1093/brain/awt233](https://doi.org/10.1093/brain/awt233). (IF 10.23)

26. Deep sequencing reveals increased DNA methylation in chronic rat epilepsy. **Kobow K\***, Kaspi A\*, Hari Krishnan KN, Kiese K, Ziemann M, Khurana I, Fritzsche I, Hauke J, Hahnen E, Coras R, Mühlebner A, El-Osta A, Blümcke I. **Acta Neuropathol**. 2013;126(5):741-56. [doi: 10.1007/s00401-013-1168-8](https://doi.org/10.1007/s00401-013-1168-8). (IF9.77)

#### 2012

27. Neuropathologic measurements in focal cortical dysplasias: validation of the ILAE 2011 classification system and diagnostic implications for MRI. Mühlebner A, Coras R, **Kobow K**, Feucht M, Czech T, Stefan H, Weigel D, Buchfelder M, Holthausen H, Pieper T, Kudernatsch M, Blümcke I. **Acta Neuropathol**. 2012;123(2):259-72. [doi: 10.1007/s00401-011-0920-1](https://doi.org/10.1007/s00401-011-0920-1). (IF 9.73)

#### 2010

28. Low proliferation and differentiation capacities of adult hippocampal stem cells correlate with memory dysfunction in humans. Coras R, Siebzehnrubl FA, Pauli E, Huttner HB, Njunting M, **Kobow K**, Villmann C, Hahnen E, Neuhuber W, Weigel D, Buchfelder M, Stefan H, Beck H, Steindler DA, Blümcke I. **Brain**. 2010;133(11):3359-72. [doi: 10.1093/brain/awq215](https://doi.org/10.1093/brain/awq215). (IF 9.23)

#### 2009

29. Increased reelin promoter methylation is associated with granule cell dispersion in human temporal lobe epilepsy. **Kobow K**, Jeske I, Hildebrandt M, Hauke J, Hahnen E, Buslei R, Buchfelder M, Weigel D, Stefan H, Kasper B, Pauli E, Blümcke I. **J Neuropathol Exp Neurol**. 2009;68(4):356-64. [doi: 10.1097/NEN.0b013e31819ba737](https://doi.org/10.1097/NEN.0b013e31819ba737). (IF 4.56)