



CURRICULUM VITAE
Priv.-Doz. Dr. med. univ. et scient.
Katharina GOERAL

Curriculum Vitae

Priv.-Doz. DDr. Katharina GOERAL

EDUCATION

- 11/2013 – 03/2022 **PhD – Medical University of Vienna**
Graduation: March 2022
Thematic Program: Clinical Neurosciences (CLINS)
- 10/2006 – 10/2013 **Human Medicine – Medical University of Vienna (GPA: 1.41)**
Graduation: October 2013
Optional subjects – Completed with GPA: 1.0:
neonatal intensive care with bedside teaching, neonatal
neurology, pathomechanism in perinatal asphyxia, pre- and
perinatal cardiology, extremely low birth weight infant, case
rounds on the NICU, intensive medicine
- 09/1998 – 06/2006 **Comprehensive Secondary School**
Hollabrunn, Austria
(school leaving exam: 06/2006; A-levels with distinction)

SCIENTIFIC EMPLOYMENT

- 06/2011 – 07/2012 **Pediatric Neuroscience and Stem Cell Research Trainee**
Kennedy Krieger Institute, Johns Hopkins Medical Institutions
Baltimore, MD (USA)
- 05/2010 – 05/2011 **Scientific Employment**
Department of Pediatrics and Adolescence Medicine
Division of Neonatology, Intensive Care and Pediatric Neurology
University Hospital Vienna (Austria)

CLINICAL APPOINTMENT

- 03/2023 **Habilitation (Priv. Doz.)**
- Since 11/2022 **Internal career agreement (“Interne Karrierevereinbarung”)** for
the scientific university staff
- Since 12/2019 **Attending Physician**
Department of Pediatrics and Adolescent Medicine
Division of Neonatology, Intensive Care and Pediatric Neurology
- 12/2019 – 11/2021 **Special Interest Training (“Zusatzfach Neonatologie und
Pädiatrische Intensivmedizin”)**
Department of Pediatrics and Adolescent Medicine
Division of Neonatology, Intensive Care and Pediatric Neurology
- 10/2013 – 11/2019 **Residency (“Facharzt für Kinder- und Jugendheilkunde”)**
Department of Pediatrics and Adolescent Medicine
Division of Neonatology, Intensive Care and Pediatric Neurology



Contact

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Address

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Personal Information

Born on December 27, 1987
Nationality: AUSTRIA

ORCID ID

[0000-0002-5209-6169](https://orcid.org/0000-0002-5209-6169)

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Priv.-Doz. DDr. Katharina GOERAL

SCHOLARSHIPS AND PRICES

05/2022	Science award at the 48. Jahrestagung der Gesellschaft für Neonatologie und Pädiatrische Intensivmedizin 2022
03/2019	Austrian Society of Pre- and Perinatal Medicine – Otto Thalhammer award 2019
05/2018	Medical University Vienna – Researcher of the Month May 2018
05/2017	Medical University Vienna – research scholarship
09/2015	ESPR scholarship for one of the best 10 abstracts at the 1 st Congress of joint European Neonatal Societies (jENS)
10/2012	Medical University Vienna – merit based scholarship
06/2011	Medical University Vienna – research scholarship
05/2011	Students4excellence Scholarship
10/2010 (2 weeks)	„From Sound to Ultrasound: Multimedia based Pediatric Cardiology Intensive Program“ in Crete (Greece)

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[0000-0002-5209-6169](https://orcid.org/0000-0002-5209-6169)

CV short

Name: **GOERAL Katharina**

Degree: **MD PhD**

Division/Department: **Division of Neonatology, Intensive Care and Pediatric Neurology**
Department of Pediatrics and Adolescent Medicine

Institution: **Medical University Vienna**

Institution address: **Währingergürtel 18-20, 1090 Vienna, Austria**

Years since first faculty appointment: **3 years (11/2022)**

Member of **ESPR**

H-Index score: 17



27.11.2025

Grant Funding:

1. Jubiläumsfonds der OeNB

Role on project: Principal Investigator / Coordinator

Yearly amount: total €52,000

Dates of grant: 01/2017 – 12/2021

Description of project: *When to intervene in preterm infants with posthemorrhagic hydrocephalus? A prospective multimodal study using aEEG, VEPs and NIRS to identify optimal timing for neurosurgical intervention and evaluate early neurophysiological biomarkers.*

2. WWTF Life Sciences Call 2020

Role on project: Principal Investigator / Project Lead for subproject

Yearly amount: total €865,350; subproject €247,760

Dates of grant: 09/2021 – 03/2026

Description of project: *PIMIENTO: Precision Medicine in Intraventricular Hemorrhage. An integrative multi-omics and neuroimaging project combining proteomics, metabolomics, MRI, and machine learning to improve outcome prediction in preterm infants with IVH.*

3. Gesellschaft für Neonatologie und Pädiatrische Intensivmedizin (GNPI)

Role on project: Principal Investigator

Yearly amount: total €10,000

Dates of grant: Awarded 02/2023, ongoing

Description of project: *Precision Medicine – Biomarkers in preterm infants with intraventricular hemorrhage. A targeted biomarker profiling study aiming to identify molecular predictors of IVH severity and neurodevelopment.*

4. Society „unser kind“

Role on project: Principal Investigator

Yearly amount: total €30,000

Dates of grant: Awarded 08/2025, ongoing

Description of project: *Beating the Odds: Standardized hemodynamic screening combined with adjunctive music therapy to enhance cerebral stability and brain protection in extremely preterm infants.*

Peer-reviewed Publications

Last-author publications

1. Impact of Posthemorrhagic Ventricular Dilatation on Cerebral Oxygenation in Preterm Infants With Intraventricular Hemorrhage. *Pediatric Res* *accepted 25.11.2025*.
Elis J, Klein L, Steiner M, Moser K, Giordano V, Vignolle G, Ciglar L, Kasprian G, Langs G, Olischar M, Berger A, **Goeral K.**
2. Fat-free mass is associated with neurodevelopment outcomes in extremely preterm infants up to 3 years of age. *Pediatric Res* 2025 Nov 11. doi: 10.1038/s41390-025-04557-1.
Binder C, Calek E, Thajer A, Harreiter K, Longford N, Fuiko R, Berger A, **Goeral K.**
3. Neonatal outcomes following previable rupture of membranes below 23 weeks' gestation. *Eur J Pediatr.* 2025 Jul 25;184(8):503. doi: 10.1007/s00431-025-06324-0.
Grill A, Mikula F, Jansen S, Klein L, Rittenschober-Boehm J, Leitich H, Farr A, Berger A, **Goeral K.**
4. Impact of being small for gestational age in neonates born below 600g birth weight. *Pediatr Res.* 2025. doi: 10.1038/s41390-025-04202-x.
Jernej R, Fuiko R, Binder J, Kiss H, Klebermass-Schrehof K, Grill A, Berger A, **Goeral K.**
5. Predicting Outcomes of Preterm Neonates Post Intraventricular Hemorrhage. *Int J Mol Sci.* 2024 Sep 25;25(19):10304. doi: 10.3390/ijms251910304. PMID: 39408633; PMCID: PMC11477204.
[Special Issue: Molecular Advances in Pediatric Diseases]
Vignolle GA, Bauerstätter P, Schönthaler S, Nöhammer C, Olischar M, Berger A, Kasprian G, Langs G, Vierlinger K, **Goeral K.**
6. Cerebellar haemorrhage and atrophy in infants born extremely preterm with intraventricular haemorrhage. *Dev Med Child Neurol.* 2025 May;67(5):609-617. doi: 10.1111/dmcn.16123.
Buchmayer J, Fuiko R, Kienast P, Stummer S, Kasprian G, Berger A, **Goeral K.**
7. Acute Impact of Posthemorrhagic Ventricular Dilatation on Cerebral Oxygenation in Preterm Infants with Intraventricular Hemorrhage. *Acta Paediatrica.* 2024 Dec;113(12):2573-2581. doi: 10.1111/apa.17375.
Steiner M, Elis J, Giordano V, Kienast P, Ciglar L, Langs G, Vignolle GA, Olischar M, Berger A, **Goeral K.**
8. Neurodevelopmental Outcome in Preterm Infants with Intraventricular Hemorrhages: The Potential of Quantitative Brainstem MRI. *Cereb Cortex.* 2024 May 2;34(5):bhae189. doi: 10.1093/cercor/bhae189.
Kienast P, Schmidbauer V, Yildirim MS, Seeliger S, Stuempflen M, Elis J, Giordano Vito, Fuiko R, Olischar M, Vierlinger K, Noehammer C, Berger A, Prayer D, Kasprian G, **Goeral K.**
9. MRI based Reference Values for 2D Quantitative Brain Metrics in a Cohort of Extremely Preterm Infants. *Neonatology.* 2024;121(1):97-105. doi: 10.1159/000534009.
Buchmayer J, Kasprian G, Jernej R, Stummer S, Schmidbauer V, Giordano V, Klebermass-Schrehof K, Berger A, **Goeral K.**

10. Intrauterine detection of Ureaplasma species after vaginal colonization in pregnancy and neonatal outcome. Neonatology. 2023 Dec 5:1-8. doi: 10.1159/000534779.
Rittenschober-Boehm J, Fuiko R, Farr A, Willinger B, Berger A, **Goeral K**.
11. Brain biometry reveals impaired brain growth in preterm neonates with intraventricular hemorrhage. Neonatology. 2023;120(2):225-234. doi: 10.1159/000528981.
Steiner M, Schwarz H, Kasprian G, Rittenschober-Boehm J, Schmidbauer V, Fuiko R, Olischar M, Klebermass-Schrehof K, Berger A, **Goeral K**.
12. Routine use of cerebral magnetic resonance imaging in preterm infants born <28 weeks. J Pediatr. 2022 Jun 20;S0022-3476(22)00485-1. doi: 10.1016/j.jpeds. 2022.05.033.
Buchmayer J, Kasprian G, Giordano V, Schmidbauer V, Steinbauer P, Klebermass-Schrehof K, Berger A, **Goeral K**.
13. Outcome prediction in neonatal hypoxic-ischemic encephalopathy using neurophysiology and neuroimaging. Neonatology. 2022. doi: 10.1159/000524751.
Steiner M, Urlsberger B, Giordano V, Kasprian G, Glatter S, Oberleitner-Leeb C, Rittenschober-Boehm J, Werther T, Berger A, Olischar M, **Goeral K**.
14. Association between fat-free mass and brain size in extremely preterm infants. Nutrients 2021, 13, 4205. doi: 10.3390/nu13124205.
Binder C, Buchmayer J, Thajer A, Giordano V, Schmidbauer V, Harreiter K, Klebermass-Schrehof K, Berger A, **Goeral K**.

First-author publications

15. Vaginal delivery is associated with neurochemical evidence of increased neuroaxonal remodelling in infants from the KUNO-Kids health study: cross-sectional analysis. Neonatology. 2022;119(6):769-776. doi: 10.1159/000526472.
Kürner K*, **Goeral K***, Atkinson A, Brandstetter S, Toncheva AA, Kabesch M, Apfelbacher C, Melter M, Seelbach-Göbel B, Berger A, Kuhle J, Wellmann S, KUNO-Kids study group.
(shared first-authorship)*
16. A novel magnetic resonance imaging-based scoring system to predict outcome in neonates born preterm with intraventricular haemorrhage. Dev Med Child Neurol. 2021;00:1-11. doi: 10.1111/dmcn.15116.
Goeral K, Kasprian G, Hüning BM, Waldhoer T, Fuiko R, Schmidbauer V, Prayer D, Felderhoff-Müser U, Berger A, Olischar M, Klebermass-Schrehof K.
17. Longitudinal Reference Values for Cerebral Ventricular Size in Preterm Infants Born at 23-27 Weeks of Gestation. J Pediatr. 2021 Jun 29;S0022-3476(21)00647-8. doi: 10.1016/j.jpeds.2021.06.065.
Goeral K, Schwarz H, Hammerl M, Brugger J, Wagner M, Klebermass-Schrehof K, Kasprian G, Kiechl-Kohlendorfer U, Berger A, Olischar M.
18. Considerable mortality and morbidity in neonates born below 500 gram. Acta Paediatr. 2021

Aug;110(8):2359-2365. doi: 10.1111/apa.15885.

Goeral K, Fuiko R, Binder J, Lindtner C, Jernej R, Rittenschober-Boehm J, Klebermass-Schrehof K, Berger A, Grill A.

19. Early life serum neurofilament dynamics predict neurodevelopmental outcome of preterm infants. *J Neurol*. 2021 Jul;268(7):2570-2577. doi: 10.1007/s00415-021-10429-5.

Goeral K*, Hauck A*, Atkinson A, Wagner MB, Pimpel B, Fuiko R, Klebermass-Schrehof K, Leppert D, Kuhle J, Berger A, Olischar M, Wellmann S.

(shared first-authorship)*

20. Microvessel ultrasound of neonatal brain parenchyma: feasibility, reproducibility, and normal imaging features by superb microvascular imaging (SMI). *Eur Radiol*. 2019 Apr;29(4):2127-2136. doi: 10.1007/s00330-018-5743-1.

Goeral K, Hojreh A, Kasprian G, Klebermass-Schrehof K, Weber M, Mitter C, Berger A, Prayer D, Brugger PC, Vergesslich-Rothschild K, Patsch JM.

21. Prediction of Outcome in Neonates with Hypoxic-Ischemic Encephalopathy II: Role of Amplitude-Integrated Electroencephalography and Cerebral Oxygen Saturation Measured by Near-Infrared Spectroscopy. *Neonatology*. 2017;112(3):193-202. doi: 10.1159/000468976.

Goeral K, Urlesberger B, Giordano V, Kasprian G, Wagner M, Schmidt L, Berger A, Klebermass-Schrehof K, Olischar M.

Co-author publications

22. Machine learning-based tool to assess risk of hemodynamically significant PDA in extremely premature infants. *Pediatric Res* 2025 Oct 29. doi: 10.1038/s41390-025-04489-w.

23. Cerebral oxygenation during transition and amplitude-integrated electroencephalography signals: an ancillary study to the COSGOD-III trial. *Acta Paediatrica* 2025; 0:1-11. doi: 10.1111/apa.70190.

24. Effect of timing of umbilical cord clamping on cerebral regional tissue oxygenation: a secondary analysis of the COSGOD III trial. *Arch Dis Child Fetal Neonatal Ed*. 2025 Apr 29:fetalneonatal-2024-327946. doi: 10.1136/archdischild-2024-327946.

25. Brain oxygenation monitoring during neonatal stabilization and resuscitation and its potential for improving preterm infant outcomes: a systematic review and meta-analysis with Bayesian analysis. *Eur J Pediatr*. 2025 Apr 21;184(5):305. doi: 10.1007/s00431-025-06138-0.

26. Reference ranges for arterial oxygen saturation, heart rate and cerebral oxygen saturation during immediate postnatal transition in extremely and very preterm neonates. *Pediatr*. 2024 May 30:114132. doi: 10.1016/j.jpeds.2024.114132.

27. Maternal biomarkers in predicting neonatal sepsis after preterm premature rupture of membranes in preterm infants. *Acta Paediatr*. 2024 Jan 24. doi: 10.1111/apa.17114.

28. Quantitative Magnetic Resonance Imaging for Neurodevelopmental Outcome Prediction in Neonates Born Extremely Premature – An Exploratory Study. *Clin Neuroradiol*. 2024 Jan 30. doi:

10.1007/s00062-023-01378-9.

29. Cerebral regional tissue Oxygen Saturation to Guide Oxygen Delivery in preterm neonates during immediate transition after birth (COSGOD III) – An investigator-initiated randomized, multi-center, multi-national, phase III clinical trial. *BMJ*. 2023 Jan 24;380:e072313. doi: 10.1136/bmj-2022-072313.
30. Ultrasound Guided Brachial Plexus Anaesthesia for Neonatal Ischaemia of the Upper Limb: A Case Report. *Ann Case Report*. 2023. 8: 1219. doi: 10.29011/2574-7754.101219.
31. Regular lung recruitment maneuvers during high-frequency oscillatory ventilation in extremely preterm infants: a randomized controlled trial. *BMC Pediatr*. 2022 Dec 12;22(1):710. doi: 10.1186/s12887-022-03780-7.
32. Synthetic MR Imaging-Based WM Signal Suppression Identifies Neonatal Brainstem Pathways in Vivo. *AJNR Am J Neuroradiol*. 2022 Nov. doi: 10.3174/ajnr.A7710.
33. Cardiopulmonary resuscitation of a very preterm infant using high-frequency oscillation ventilation. *Resusc Plus*. 2022 Jun 28;11:100265. doi: 10.1016/j.resplu.2022.100265.
34. Different from the Beginning: WM Maturity of Female and Male Extremely Preterm Neonates-A Quantitative MRI Study. *AJNR Am J Neuroradiol*. 2022 Apr;43(4):611-619. doi: 10.3174/ajnr.A7472.
35. A Mixed-Lipid Emulsion Containing Fish Oil for the Parenteral Nutrition of Preterm Infants: No Impact on Visual Neuronal Conduction. *Nutrients* 2021, 13, 4241. doi: 10.3390/nu13124241.
36. Aberrant gut-microbiota-immune-brain axis development in premature neonates with brain damage. *Cell Host Microbe*. 2021 Sep 1:S1931-3128(21)00380-2. doi: 10.1016/j.chom.2021.08.004.
37. Maternal Vaginal *Ureaplasma* spp. Colonization in Early Pregnancy Is Associated with Adverse Short- and Long-Term Outcome of Very Preterm Infants. *Children (Basel)*. 2021 Apr 3;8(4):276. doi: 10.3390/children8040276.
38. The Effect of Music on aEEG Cyclicality in Preterm Neonates. *Children (Basel)*. 2021 Mar 9;8(3):208. doi: 10.3390/children8030208.
39. Development of a 3D printed patient-specific neonatal brain simulation model using multimodality imaging for perioperative management. *Pediatr Res*. 2021 Mar 2. doi: 10.1038/s41390-021-01421-w.
40. Impact of Prematurity on the Tissue Properties of the Neonatal Brain Stem: A Quantitative MR Approach. *AJNR Am J Neuroradiol*. 2021 Mar;42(3):581-589. doi: 10.3174/ajnr.A6945.
41. Validity of SyMRI for Assessment of the Neonatal Brain. *Clin Neuroradiol*. 2021 Jun;31(2):315-323. doi: 10.1007/s00062-020-00894-2.
42. SyMRI detects delayed myelination in preterm neonates. *Eur Radiol*. 2019 Dec;29(12):7063-7072. doi: 10.1007/s00330-019-06325-2.
43. Vaginal *Ureaplasma parvum* serovars and spontaneous preterm birth. *Am J Obstet Gynecol*. 2019 Jun;220(6):594.e1-594.e9. doi: 10.1016/j.ajog.2019.01.237.
44. Effects of Feedback on Chest Compression Quality: A Randomized Simulation Study. *Pediatrics*. 2019 Feb;143(2):e20182441. doi: 10.1542/peds.2018-2441.
45. The power of N-PASS, aEEG, and BIS in detecting different levels of sedation in neonates: A preliminary

study. *Paediatr Anaesth*. 2018 Dec;28(12):1096-1104. doi: 10.1111/pan.13509.

46. First Trimester Vaginal Ureaplasma Biovar Colonization and Preterm Birth: Results of a Prospective Multicenter Study. *Neonatology*. 2018;113(1):1-6. doi: 10.1159/000480065.
47. Student peer teaching in paediatric simulation training is a feasible low-cost alternative for education. *Acta Paediatr*. 2017 Jun;106(6):995-1000. doi: 10.1111/apa.13792.
48. Biometry of the corpus callosum assessed by 3D ultrasound and its correlation to neurodevelopmental outcome in very low birth weight infants. *J Perinatol*. 2017 Apr;37(4):448-453. doi: 10.1038/jp.2016.231.
49. Diffusion Tensor Imaging Abnormalities in the Cerebral White Matter Correlate with Sex-Dependent Neurobehavioral Deficits in Adult Mice with Neonatal Ischemia. *Dev Neurosci*. 2016;38(2):83-95. doi: 10.1159/000442943.
50. Ischemia-induced neuroinflammation is associated with disrupted development of oligodendrocyte progenitors in a model of periventricular leukomalacia. *Dev Neurosci*. 2013;35(2-3):182-96. doi: 10.1159/000346682.

Co-author reviews

51. Pain and Sedation Scales for Neonatal and Pediatric Patients in a Preverbal Stage of Development: A Systematic Review. *JAMA Pediatr*. 2019 Dec 1;173(12):1186-1197. doi: 10.1001/jamapediatrics.2019.3351.
52. Review of Routes to Administer Medication During Prolonged Neonatal Resuscitation. *Pediatr Crit Care Med*. 2018 Apr;19(4):332-338. doi: 10.1097/PCC.0000000000001493.

Book chapters

Chapter "Neonatal brain injuries" in *Neurobiology of Disease 2*. Oxford University Press. ISBN: 9780199937837.

Goeral K, Johnston MV, Fatemi A.