

Prof. Dr. med. Christoph Bühner
Dept of Neonatology
Charité - Universitätsmedizin Berlin
Berlin, Germany

Curriculum vitae

Date of birth:	May 16, 1958
Place of birth:	Heidelberg Nationality: German
11/2008-1/2026	Head, Department of Neonatology Charité University Medical Center (Universitätsmedizin Berlin) Berlin, Germany
2/2005-10/2008	Head, Department of Neonatology Basel University Children`s Hospital Basel, Switzerland
2/1998-1/2005	Attending neonatologist Department of Neonatology Charité Campus Virchow-Klinikum Berlin, Germany
5/1997-1/1998	Neonatal Follow-Up Clinic Center for Chronically Sick Children (SPZ) Charité Campus Virchow-Klinikum Berlin, Germany
8/1996-4/1997	Department of Congenital Heart Disease/Pediatric Cardiology German Heart Center Berlin
1/1990-7/1996	University Children`s Hospital Berlin Free University / Humboldt University, Berlin
4/1989-12/1989	Dept of Medical Immunology Eppendorf University Hospital Hamburg, Germany
7/1987-3/1989	Dept of Pediatric Hematology and Oncology Hannover Medical School Hannover, Germany
7/1986-6/1987	Laboratory of Cytokine Biology Memorial Sloan Kettering Cancer Center New York City, NY, USA

Medical School

4/1985-4/1986	Eppendorf University Hospital, Hamburg, Germany
3/1984-3/1985	AREBA Casriel Institute, New York City, NY, USA
4/1981-2/1984	Hamburg University Medical School, Hamburg, Germany
3/1979-3/1981	Albert-Ludwigs-University Medical School, Freiburg/Breisgau, Germany

Boards, Exams, Academic milestones

State exam, Physician licence	30/04/1986
Scientific Medical Thesis (MD)	03/09/1986
Board Pediatrics	22/10/1997
PhD Pediatrics	10/11/1998
Board Neonatology	22/03/2000
Assistant Professor (Berlin)	29/04/2004
Associate Professor (Basel)	01/02/2005
Full Professor (Berlin)	01/11/2008

Participating investigator in randomized controlled trials

- Human recombinant erythropoietin to prevent anemia of prematurity (EMESG, 1991-3)
- Paracetamol as a neonatal analgesic after assisted vaginal delivery (NCT00488540)
- Human recombinant erythropoietin as a neuroprotective agent in preterm infants (NCT00413946)
- Non-invasive surfactant application in preterm infants (NINSAPP; EudraCT#2008-000896-30)
- Effects of transfusion threshold on neurodevelopmental outcome in preterm infants (ETTNO; EudraCT#2010-021576-28)
- Recombinant bile-salt activated lipase added to infant formula (LAIF; EudraCT# 2010-023909-35)
- Bosentan in severe hypoxemic respiratory failure in newborn infants (FUTURE4; EudraCT#2011-000203-41)
- Oral rivaroxaban in infants from birth to less than 6 months with catheter-related arterial or venous thrombosis (EINSTEIN neonate; EudraCT#2014-002385-74)
- Oral propranolol for the prevention of threshold retinopathy of prematurity (ROPPOP; NCT03083431, EudraCT#2017-002124-24)

Publications (PubMed) 2020-2025

1. Hellberg T, Schmitz T, Bühner C, Endesfelder S. Cannabidiol Protects the Neonatal Mouse Heart from Hypoxia-Induced Injury. *Int J Mol Sci.* 2025;27(1):146. doi: 10.3390/ijms27010146.
2. Endesfelder S, Bühner C. Caffeine Protects Against Hyperoxia-Induced Structural Lung Injury and Restores Alveolar Development in Neonatal Rats. *Antioxidants.* 2025;14(12):1497. doi: 10.3390/antiox14121497.
3. Gabrysch CH, Dressler-Steinbach I, Verlohren S, Bühner C, Mayer B, Dame C. Maternal Immunoglobulin Treatment of Gestational Alloimmune Liver Disease to Prevent Neonatal Liver Failure: A Single Center Case Series. *Transfus Med Hemother.* 2025;52(6):368-378. doi: 10.1159/000548476.
4. Thomale UW, Bogoslovskaja E, Knerlich-Lukoschus F, Akimov A, Spennato P, Auer C, El Damaty A, Schaumann A, Pennacchietti V, Schulz M, Buis D, Demyanenko V, Seliverstov A, Usatova O, Ozgural O, Kahilogullari G, Schuhmann MU, Jimenez-Guerra R, Beez T, Wittayanakorn N, Sukharev A, Linsler S, Oertel J, Vacek P, Pankratiev R, Timershin A, Lovha M, Guzman R, Stricker S, Wiegand C, Votoupal M, Medoev S, Fatykhova E, Kovalkov K, Pogosova D, Bühner C, Lam S, Sgouros S, Roth J, Constantini S, Cavalheiro S, Cinalli G, Kulkarni AV, Gorelyshev S, Bock HC. Treatment of Posthemorrhagic Hydrocephalus in neonates (TROPHY) registry: surgical results from 6-month follow-up data. *J Neurosurg Pediatr.* 2025 Dec 5:1-11. doi: 10.3171/2025.7.PEDS25167.

5. Dumitrescu EL, Bühler C. Transient Dip in Head Circumference Growth Trajectories Associated With Continuous Positive Airway Pressure Administration in Very Preterm Infants. *Acta Pædiatr.* 2025 Dec 5. doi: 10.1111/apa.70392.
6. Sandig J, Küng E, Aichhorn L, Schwabegger B, Klemme M, Wagner N, Bühler C, Sternal F. Pleura-ABCDE - a structured expert-based protocol for neonatal lung ultrasound documentation and interpretation. *Ultrasound J.* 2025;17(1):48. doi: 10.1186/s13089-025-00442-4.
7. Lorenz-Meyer L, Bühler C, Verlohren S, Endesfelder S. Circulating Plasma Syncytin-1 mRNA in Preeclampsia-A Pilot Study. *Int J Mol Sci.* 2025;26(18):9015. doi: 10.3390/ijms26189015.
8. Pitcher GJ, Kubota A, Younge NE, Bühler C, Cotten CM, Mehler K, Boly TJ, Rahhal R, Kusuda S, Rysavy MA; Tiny Baby Collaborative Steering Committee. Meconium obstruction of prematurity in tiny babies - towards developing an international consensus. *J Perinatol.* 2025 Sep 8. doi: 10.1038/s41372-025-02395-x.
9. Hummel M, Fuchtenbusch M, Battfeld W, Bühler C, Groten T, Haak T, Kainer F, Kautzky-Willer A, Lechner A, Meissner T, Nagel-Reuper C, Schäfer-Graf UM, Siegmund T. Diabetes and Pregnancy. *Exp Clin Endocrinol Diabetes.* 2025;133(4):156-166. doi: 10.1055/a-2499-9780.
10. El-Nahry YHA, Bardinet V, Bühler C, Henrich W. Novel homozygous mutation in the human *RAX* homeobox gene in a patient with bilateral anophthalmia and severe endocrine dysfunction - a case report and literature review. *Case Rep Perinat Med.* 2024;13(1):20240018. doi: 10.1515/crpm-2024-0018.
11. Schäfer-Graf UM, Laubner K, Hummel S, Gembruch U, Groten T, Kainer F, Grieshop M, Bancher-Todesca D, Cervar-Zivkovic M, Hösli I, Kalthener M, Gellner R, Kautzky-Willer A, Bühler C, Hummel M. Gestational Diabetes Mellitus (GDM), Diagnostics, Therapy and Follow-up Care. *Exp Clin Endocrinol Diabetes.* 2025;133(6):297-307. doi: 10.1055/a-2500-0411.
12. Franz AR, Engel C, Bassler D, Rüdiger M, Thome UH, Maier RF, Krägeloh-Mann I, Essers J, Bühler C, Bittrich HJ, Roll C, Höhn T, Ehrhardt H, Boettger R, Körner HT, Stein A, Neuberger P, Henriksen TB, Greisen G, Poets CF; ETTNO Investigators. Effects of liberal versus restrictive transfusion strategies on intermittent hypoxaemia in extremely low birthweight infants: secondary analyses of the ETTNO randomised controlled trial. *Arch Dis Child Fetal Neonatal Ed.* 2025;110(6):564-570. doi: 10.1136/archdischild-2024-327643.
13. Kühne F, de Chamorro NW, Glasmeyer L, Grigoryev M, Shing YL, Buss C, Bühler C, Kaindl AM. Predictors for Development of Asphyxiated Neonates Treated With Therapeutic Hypothermia. *Acta Pædiatr.* 2025;114(7):1553-1561. doi: 10.1111/apa.17598.
14. Bühler C, Bindermann R, Hauptmann K. Epignathus. *Arch Dis Child Fetal Neonatal Ed.* 2025;110(4):353. doi: 10.1136/archdischild-2023-326626.
15. Salloum JA, Garten L, Bühler C. Diuresis-led volume replacement strategy in extremely low birth weight infants. *Acta Pædiatr.* 2024;113(11):2391-2397. doi: 10.1111/apa.17362.
16. Schmidt A, Danyel M, Grundmann K, Brunet T, Klinkhammer H, Hsieh TC, Engels H, Peters S, Knaus A, Moosa S, Averdunk L, Boschann F, Sczakiel HL, Schwartzmann S, Mensah MA, Pantel JT, Holtgrewe M, Bösch A, Weiß C, Weinhold N, Suter AA, Stoltenburg C, Neugebauer J, Kallinich T, Kaindl AM, Holzhauser S, Bühler C, Bufler P, Kornak U, Ott CE, Schülke M, Nguyen HHP, Hoffjan S, Grasemann C, Rothoef T, Brinkmann F, Matar N, Sivalingam S, Perne C, Mangold E, Kreiss M, Cremer K, Betz RC, Mücke M, Grigull L, Klockgether T, Spier I, Heimbach A, Bender T, Brand F, Stieber C, Morawiec AM, Karakostas P, Schäfer VS, Bernsen S, Weydt P, Castro-Gomez S, Aziz A, Grobe-Einsler M, Kimmich O, Kobeleva X, Önder D, Lesmann H, Kumar S, Tacik P, Bhasin MA, Incardona P, Lee-Kirsch MA, Berner R, Schuetz C, Körholz J, Kretschmer T, Di Donato N, Schröck E, Heinen A, Reuner U, Hanßke AM, Kaiser FJ, Manka E, Munteanu M, Kuechler A, Cordula K, Hirtz R, Schlapakow E, Schlein C, Lisfeld J, Kubisch C, Herget T, Hempel M, Weiler-Normann C, Ullrich K, Schramm C, Rudolph C, Rillig F, Groffmann M, Muntau A, Tibelius A, Schwaibold EMC, Schaaf CP, Zawada M, Kaufmann L, Hinderhofer K, Okun PM, Kotzaeridou U, Hoffmann GF, Choukair D, Bettendorf M, Spielmann M, Ripke A, Pauly M, Münchau A, Lohmann K, Hüning I, Hanker B, Bäumer T, Herzog R, Hellenbroich Y, Westphal DS, Strom T, Kovacs R, Riedhammer KM, Mayerhanser K, Graf E, Brugger M, Hoefele J, Oexle K, Mirza-Schreiber N, Berutti R, Schatz U, Krenn M, Makowski C, Weigand H, Schröder S, Rohlf M, Vill K, Hauck F, Borggraefe I, Müller-Felber W, Kurth I, Elbracht M, Knopp C, Begemann M, Kraft F, Lemke JR, Hentschel J, Platzer K, Strehlow V, Abou Jamra R, Kehr M, Demidov G, Beck-Wödl S, Graessner H, Sturm M, Zeltner L, Schöls LJ, Magg J, Bevot A, Kehr C, Kaiser N, Turro E, Horn D, Grüters-Kieslich A, Klein C, Mundlos S, Nöthen M, Riess O, Meitinger T, Krude H, Krawitz PM, Haack T, Ehmke N, Wagner M. Next-generation phenotyping integrated in a national framework for patients with ultrarare disorders improves genetic diagnostics and yields new molecular findings. *Nat Genet.* 2024;56(8):1644-1653. doi: 10.1038/s41588-024-01836-1.
17. Boos V, Bühler C. Use of mask ventilation and oxygen supplementation in German delivery rooms from 2008 to 2022. *Acta Pædiatr.* 2024;113(9):2037-2038. doi: 10.1111/apa.17324.
18. Endesfelder S, Schmitz T, Bühler C. Bilirubin Exerts Protective Effects on Alveolar Type II Pneumocytes in an In Vitro Model of Oxidative Stress. *Int J Mol Sci.* 2024;25(10):5323. doi: 10.3390/ijms25105323.
19. Yuu EY, Bühler C, Eckmanns T, Fulde M, Herz M, Kurzai O, Lindstedt C, Panagiotou G, Piro VC, Radonic A, Renard BY, Reuss A, Siliceo SL, Thielemann N, Thürmer A, Vorst KV, Wieler LH, Haller S. The gut microbiome, resistome, and mycobiome in preterm newborn infants and mouse pups: lack of lasting effects

- by antimicrobial therapy or probiotic prophylaxis. *Gut Pathog.* 2024;16(1):27. doi: 10.1186/s13099-024-00616-w.
20. Pietrucha A, Serdar M, Bendix I, Endesfelder S, Brinke EAD, Urkola A, Bühler C, Schmitz T, Scheuer T. Oxygen and HIF1 α -dependent SDF1 expression in primary astrocytes. *Dev Neurobiol.* 2024;84(3):113-127. doi: 10.1002/dneu.22938.
 21. Rech T, Rubarth K, Bühler C, Balzer F, Dame C. The Finnegan Score for Neonatal Opioid Withdrawal Revisited With Routine Electronic Data: Retrospective Study. *JMIR Pediatr Parent.* 2024;7:e50575. doi: 10.2196/50575.
 22. Boos V, Bühler C. Trends in Apgar scores and umbilical artery pH: a population-based cohort study on 10,696,831 live births in Germany, 2008-2022. *Eur J Pediatr.* 2024;183(5):2163-2172. doi: 10.1007/s00431-024-05475-w.
 23. Guillén Ú, Zupancic JAF, Litt JS, Kaempf J, Fanaroff A, Polin RA, Martin R, Eichenwald E, Wilson-Costello D, Edwards AD, Hallman M, Bühler C, Fanaroff J, Albersheim S, Embleton ND, Shah PS, Dennery PA, Discenza D, Jobe AH, Kirpalani H. Community Considerations for Aggressive Intensive Care Therapy for Infants less than 24+0 Weeks of Gestation. *J Pediatr.* 2024;268:113948. doi: 10.1016/j.jpeds.2024.113948.
 24. Mavany M, Blankenstein O, Bühler C, Dame C. False Laboratory Thyroid Function Tests after Biotin Treatment in a Neonate with Shock and Suspect of Metabolic Disorder. *Klin Pädiatr.* 2025;237(4):250-251. doi: 10.1055/a-2209-3722.
 25. Schneider K, Roll S, Tissen-Diabaté T, Bühler C, Garten L. Public Attitudes Toward Ethics and Practices in End-of-Life Decision-Making for Neonates. *JAMA Netw Open.* 2024;7(1):e2353264. doi: 10.1001/jamanetworkopen.2023.53264.
 26. Jenkinson A, Aladangady N, Wellmann S, Eaton S, Bühler C, Fleming P, Roeher C. Pancreatic Insufficiency, Digestive Enzyme Supplementation, and Postnatal Growth in Preterm Babies. *Neonatology.* 2024;121(3):283-287. doi: 10.1159/000535964.
 27. Berns M, Kusztrich A, Bühler C. No change in mother's own milk provision and breastfeeding rates in preterm infants during the COVID-19 pandemic. *Acta Pædiatr.* 2024;113(3):495-502. doi: 10.1111/apa.17064.
 28. Willgerodt N, Bühler C, Rossi R, Kühn T, Rüdiger M, Avenarius S, Böttger R, Olbertz DM, Proquitte H, Bittrich HJ, Haase R, Fröhlich M, Höhne S, Thome UH. Similar adverse outcome rates with high or low oxygen saturation targets in an area with low background mortality. *Front Pediatr.* 2023;11:1235877. doi: 10.3389/fped.2023.1235877.
 29. Borger M, von Haefen C, Bühler C, Endesfelder S. Cardioprotective Effects of Dexmedetomidine in an Oxidative-Stress In Vitro Model of Neonatal Rat Cardiomyocytes. *Antioxidants.* 2023;12(6):1206. doi: 10.3390/antiox12061206.
 30. Fischer HS, Reibel NJ, Bühler C, Dame C. Effect of Early Erythropoietin on Retinopathy of Prematurity: A Stratified Meta-Analysis. *Neonatology.* 2023;120(5):566-576. doi: 10.1159/000530126.
 31. Mohr FH, Fischer HS, Czernik C, Müller B, Bühler C. Retinal blood flow velocities in infants with retinopathy of prematurity after intravitreal administration of bevacizumab. *Eur J Ophthalmol.* 2024;34(1):95-101. doi: 10.1177/11206721231178062.
 32. Puls R, von Haefen C, Bühler C, Endesfelder S. Dexmedetomidine Protects Cerebellar Neurons against Hyperoxia-Induced Oxidative Stress and Apoptosis in the Juvenile Rat. *Int J Mol Sci.* 2023;24(9):7804. doi: 10.3390/ijms24097804.
 33. Puls R, von Haefen C, Bühler C, Endesfelder S. Protective Effect of Dexmedetomidine against Hyperoxia-Damaged Cerebellar Neurodevelopment in the Juvenile Rat. *Antioxidants.* 2023;12(4):980. doi: 10.3390/antiox12040980.
 34. Heise J, Schmitz T, Bühler C, Endesfelder S. Protective Effects of Early Caffeine Administration in Hyperoxia-Induced Neurotoxicity in the Juvenile Rat. *Antioxidants.* 2023;12(2):295. doi: 10.3390/antiox12020295.
 35. Berns M, Bayramova S, Kusztrich A, Metze B, Bühler C. Trend over 25 years of risk factors of mother's own milk provision to very low birth weight infants at discharge. *Early Hum Dev.* 2023;177-178:105730. doi: 10.1016/j.earlhumdev.2023.105730.
 36. Schäfer-Graf U, Laubner K, Hummel S, Gembruch U, Groten T, Kainer F, Grieshop M, Bancher-Todesca D, Cervar-Zivakovic M, Hösl I, Kaltheuner M, Gellner R, Kautzky-Willer A, Bühler C. Gestational Diabetes Mellitus (GDM), Diagnostics, Therapy and Follow-up Care. *Exp Clin Endocrinol Diabetes.* 2023;131(1-02):13-23. doi: 10.1055/a-1946-3713.
 37. Hummel M, Fuchtenbusch M, Battefeld W, Bühler C, Groten T, Haak T, Kainer F, Kautzky-Willer A, Lechner A, Meissner T, Nagel-Reuper C, Schäfer-Graf U, Siegmund T. Diabetes and Pregnancy. *Exp Clin Endocrinol Diabetes.* 2023;131(1-02):4-12. doi: 10.1055/a-1946-3648.
 38. Sciesielski LK, Osang LKM, Dinse N, Weber A, Bühler C, Kola A, Dame C. Validation of a New PCR-Based Screening Method for Prevention of *Serratia marcescens* Outbreaks in the Neonatal Intensive Care Unit. *Neonatology.* 2023;120(2):176-184. doi: 10.1159/000526836.

39. Dame C, Horn D, Schomburg L, Grünhagen J, Chillon TS, Tietze A, Vogt A, Bühler C. Fatal congenital copper transport defect caused by a homozygous likely pathogenic variant of SLC31A1. *Clin Genet.* 2023;103(5):585-589. doi: 10.1111/cge.14289.
40. Wellmann S, Hagmann CF, von Felten S, Held L, Klebermass-Schrehof K, Truttmann AC, Knöpfli C, Fauchère JC, Bühler C, Bucher HU, Rügger CM; Erythropoietin for the Repair of Cerebral Injury in Very Preterm Infants (EpoRepair) Investigators. Safety and Short-term Outcomes of High-Dose Erythropoietin in Preterm Infants With Intraventricular Hemorrhage: The EpoRepair Randomized Clinical Trial. *JAMA Netw Open.* 2022;5(12):e2244744. doi: 10.1001/jamanetworkopen.2022.44744.
41. Buchholtz S, Fangmann L, Siedentopf N, Bühler C, Garten L. Perinatal Palliative Care: Additional Costs of an Interprofessional Service and Outcome of Pregnancies in a Cohort of 115 Referrals. *J Palliat Med.* 2023;26(3):393-401. doi: 10.1089/jpm.2022.0172.
42. Del Álamo M, Bühler C, Fisher D, Griese M, Lingor P, Palladini G, Sireau N, Hivert V, Sangiorgi L, Guillot F, Halftermeyer J, Soucková L, Nosková K, Demlová R. Identifying obstacles hindering the conduct of academic-sponsored trials for drug repurposing on rare-diseases: an analysis of six use cases. *Trials.* 2022;23(1):783. doi: 10.1186/s13063-022-06713-y.
43. Göpel W, Kribs A, Roll C, Wieg C, Teig N, Hoehn T, Welzing L, Vochem M, Hoppenz M, Bühler C, Mehler K, Hubert M, Eichhorn J, Schmidtke S, Rausch TK, König IR, Härtel C, Roth B, Herting E. Multi-centre randomised trial of invasive and less invasive surfactant delivery methods showed similar spirometry results at 5-9 years of age. *Acta Pædiatr.* 2022;111(11):2108-2114. doi: 10.1111/apa.16499.
44. Bühler C, Ensenauer R, Jochum F, Kalhoff H, Koletzko B, Lawrenz B, Mihatsch W, Posovszky C, Rudloff S. Infant formulas with synthetic oligosaccharides and respective marketing practices. *Mol Cell Pediatr.* 2022;9(1):14. doi: 10.1186/s40348-022-00146-y.
45. Giszas V, Strauß E, Bühler C, Endesfelder S. The Conflicting Role of Caffeine Supplementation on Hyperoxia-Induced Injury on the Cerebellar Granular Cell Neurogenesis of Newborn Rats. *Oxid Med Cell Longev.* 2022:5769784. doi: 10.1155/2022/5769784.
46. Scheuer T, Endesfelder S, Auf dem Brinke E, Bühler C, Schmitz T. Neonatal Oxidative Stress Impairs Cortical Synapse Formation and GABA Homeostasis in Parvalbumin-Expressing Interneurons. *Oxid Med Cell Longev.* 2022:8469756. doi: 10.1155/2022/8469756.
47. Klein L, Van Steenwinckel J, Fleiss B, Scheuer T, Bühler C, Faivre V, Lemoine S, Blugeon C, Schwendimann L, Csaba Z, Bokobza C, Vousden DA, Lerch JP, Vernon AC, Gressens P, Schmitz T. A unique cerebellar pattern of microglia activation in a mouse model of encephalopathy of prematurity. *Glia.* 2022;70(9):1699-1719. doi: 10.1002/glia.24190.
48. Bühler C, Heller G, Thome UH. Population-Based Outcome Data of Extremely Preterm Infants in Germany during 2010-2017. *Neonatology.* 2022;119(3):370-376. doi: 10.1159/000524455.
49. Sandig J, Bühler C, Czernik C. Evaluation of the Endotracheal Tube by Ultrasound in Neonates. *Z Geburtshilfe Neonatol.* 2022;226(3):160-166. doi: 10.1055/a-1732-7867.
50. Reibel NJ, Dame C, Bühler C, Muehlbacher T. Aberrant Hematopoiesis and Morbidity in Extremely Preterm Infants With Intrauterine Growth Restriction. *Front Pediatr.* 2021;9:728607. doi: 10.3389/fped.2021.728607.
51. Kröger J, Günster C, Heller G, Jeschke E, Malzahn J, Grab D, Vetter K, Abou-Dakn M, Hummler H, Bühler C. Prevalence and Infant Mortality of Major Congenital Malformations Stratified by Birthweight. *Neonatology.* 2022;119(1):41-59. doi: 10.1159/000520113.
52. Boos V, Berger F, Cho MY, Photiadis J, Bühler C, Pfitzer C. Outcomes in very low birthweight infants with severe congenital heart defect following cardiac surgery within the first year of life. *Eur J Cardiothorac Surg.* 2022;62(1):ezab494. doi: 10.1093/ejcts/ezab494.
53. Bühler C, Endesfelder S, Scheuer T, Schmitz T. Paracetamol (Acetaminophen) and the Developing Brain. *Int J Mol Sci.* 2021;22(20):11156. doi: 10.3390/ijms222011156.
54. Garten L, Danke A, Reindl T, Prass A, Bühler C. End-of-Life Care Related Distress in the PICU and NICU: A Cross-Sectional Survey in a German Tertiary Center. *Front Pediatr.* 2021;9:709649. doi: 10.3389/fped.2021.709649.
55. Pudasaini S, Friedrich V, Bühler C, Endesfelder S, Scheuer T, Schmitz T. Postnatal myelination of the immature rat cingulum is regulated by GABA-B receptor activity. *Dev Neurobiol.* 2022;82(1):16-28. doi: 10.1002/dneu.22853.
56. Boos V, Bühler C, Cho MY, Photiadis J, Berger F. The Impact of Prematurity on Morbidity and Mortality in Newborns with Dextro-transposition of the Great Arteries. *Pediatr Cardiol.* 2022;43(2):391-400. doi: 10.1007/s00246-021-02734-7.
57. Scheuer T, dem Brinke EA, Grosser S, Wolf SA, Mattei D, Sharkovska Y, Barthel PC, Endesfelder S, Friedrich V, Bühler C, Vida I, Schmitz T. Reduction of cortical parvalbumin-expressing GABAergic interneurons in a rodent hyperoxia model of preterm birth brain injury with deficits in social behavior and cognition. *Development.* 2021;148(20):dev198390. doi: 10.1242/dev.198390.
58. Neumann RP, Schulzke SM, Pohl C, Wellmann S, Metzke B, Burdensky AK, Boos V, Barikbin P, Bühler C, Czernik C. Right ventricular function and vasoactive peptides for early prediction of bronchopulmonary dysplasia. *PLoS One.* 2021;16(9):e0257571. doi: 10.1371/journal.pone.0257571.

59. Fill Malfertheiner S, Bataiosu-Zimmer E, Michel H, Fouzas S, Bernasconi L, Bühler C, Wellmann S. Vasopressin but Not Oxytocin Responds to Birth Stress in Infants. *Front Neurosci.* 2021;15:718056. doi: 10.3389/fnins.2021.718056.
60. Gustorff C, Scheuer T, Schmitz T, Bühler C, Endesfelder S. GABA-B Receptor-Mediated Impairment of Intermediate Progenitor Maturation During Postnatal Hippocampal Neurogenesis of Newborn Rats. *Front Cell Neurosci.* 2021;15:651072. doi: 10.3389/fncel.2021.651072.
61. Braun T, Filleböck V, Metze B, Bühler C, Plagemann A, Henrich W. Dosage escalation of antenatal steroids in preterm twin pregnancies does not improve long-term outcome. *J Perinat Med.* 2021;50(1):25-33. doi: 10.1515/jpm-2020-0575.
62. Sallmon H, Weimann A, Bühler C, Metze B, Dame C, Cremer M. Immature Platelet Counts and Thrombopoietin Plasma Concentrations in Thrombocytopenic and Non-thrombocytopenic Preterm Infants. *Front Pediatr.* 2021;9:685643. doi: 10.3389/fped.2021.685643.
63. Schaumann A, Bühler C, Schulz M, Thomale UW. Neuroendoscopic surgery in neonates - indication and results over a 10-year practice. *Childs Nerv Syst.* 2021;37(11):3541-3548. doi: 10.1007/s00381-021-05272-y.
64. Thomale UW, Auer C, Spennato P, Schaumann A, Behrens P, Gorelyshev S, Bogoslovskaja E, Shulaev A, Kabanian A, Seliverstov A, Alexeev A, Ozgural O, Kahilogullari G, Schuhmann M, Jimenez-Guerra R, Wittayanakorn N, Sukharev A, Marquez-Rivas J, Linsler S, Damaty AE, Vacek P, Lovha M, Guzman R, Stricker S, Beez T, Wiegand C, Azab M, Buis D, Sáez M, Fleck S, Dziugan C, Ferreira A, Radovnický T, Bühler C, Lam S, Sgouros S, Roth J, Constantini S, Cavalheiro S, Cinalli G, Kulkarni AV, Bock HC. TROPY registry - status report. *Childs Nerv Syst.* 2021;37(11):3549-3554. doi: 10.1007/s00381-021-05258-w.
65. Fischer HS, Reibel NJ, Bühler C, Dame C. Prophylactic Erythropoietin for Neuroprotection in Very Preterm Infants: A Meta-Analysis Update. *Front Pediatr.* 2021;9:657228. doi: 10.3389/fped.2021.657228.
66. Fröhlich M, Tissen-Diabaté T, Bühler C, Roll S. Sex-Specific Long-Term Trends in Length of Hospital Stay, Postmenstrual Age at Discharge, and Survival in Very Low Birth Weight Infants. *Neonatology.* 2021;118(4):416-424. doi: 10.1159/000515899.
67. Münch A, Bühler C, Longardt AC. Digestive enzyme replacement relieves growth failure in preterm infants with poor exocrine pancreatic function: a retrospective case series. *Eur J Pediatr.* 2021;180(9):2951-2958. doi: 10.1007/s00431-021-04069-0.
68. Schäfer-Graf U, Laubner K, Hummel S, Gembruch U, Groten T, Kainer F, Grieshop M, Bancher-Todesca D, Cervar-Zivakovic M, Hösli I, Kaltheuner M, Gellner R, Kautzky-Willer A, Bühler C. Gestational Diabetes Mellitus (GDM), Diagnostics, Therapy and Follow-up Care. *Exp Clin Endocrinol Diabetes.* 2021;129(S 01):S9-S19. doi: 10.1055/a-1284-6011.
69. Boos V, Bühler C, Berger F. Preoperative Anemia and Outcomes After Corrective Surgery in Neonates With Dextro-Transposition of the Great Arteries. *J Cardiothorac Vasc Anesth.* 2021;35(10):2900-2906. doi: 10.1053/j.jvca.2021.02.038.
70. Fröhlich M, Kaup D, Förster F, Rösner B, Bühler C. Special care needs of very low birthweight preterm infants calculated from routine data: A 5-year analysis. *Z Evid Fortbild Qual Gesundhwes.* 2021;161:19-27. doi:10.1016/j.zefq.2021.01.005.
71. Segler A, Braun T, Fischer HS, Dukatz R, Weiss CR, Schwickert A, Jäger C, Bühler C, Henrich W. Feasibility of Umbilical Cord Blood Collection in Neonates at Risk of Brain Damage-A Step Toward Autologous Cell Therapy for a High-risk Population. *Cell Transplant.* 2021;30:963689721992065. doi: 10.1177/0963689721992065.
72. Revuelta M, EliceGUI A, Scheuer T, Endesfelder S, Bühler C, Moreno-Cugnon L, Matheu A, Schmitz T. In vitro P38MAPK inhibition in aged astrocytes decreases reactive astrocytes, inflammation and increases nutritive capacity after oxygen-glucose deprivation. *Aging.* 2021;13(5):6346-6358. doi: 10.18632/aging.202651.
73. Kleinwechter H, Schäfer-Graf U, Bühler C, Hoesli I, Kainer F, Kautzky-Willer A, Pawlowski B, Schunck KU, Somville T, Sorger M. Diabetes and Pregnancy. *Exp Clin Endocrinol Diabetes.* 2021;129(S 01):S1-S8. doi: 10.1055/a-1284-5758.
74. Sandig J, Bühler C, Czernik C. Lung Ultrasound in Neonatology to diagnose a Pneumothorax (part one): Evidence - Time for a New Standard Protocol]. *Z Geburtshilfe Neonatol.* 2021 Feb;225(1):15-18. doi: 10.1055/a-1312-7773.
75. Sandig J, Bühler C, Czernik C. Lung Ultrasound in Neonatology to diagnose a Pneumothorax (part two): A Guideline. *Z Geburtshilfe Neonatol.* 2021;225(2):105-110. doi: 10.1055/a-1312-7809.
76. Braune K, Wäldchen M, Raile K, Hahn S, Ubben T, Römer S, Hoeber D, Reibel NJ, Launspach M, Blankenstein O, Bühler C. Open-Source Technology for Real-Time Continuous Glucose Monitoring in the Neonatal Intensive Care Unit: Case Study in a Neonate With Transient Congenital Hyperinsulinism. *J Med Internet Res.* 2020;22(12):e21770. doi: 10.2196/21770.
77. Boos V, Bühler C, Photiadis J, Berger F. Hypothermia for cardiogenic encephalopathy in neonates with dextro-transposition of the great arteries. *Interact Cardiovasc Thorac Surg.* 2021;32(1):130-136. doi: 10.1093/icvts/ivaa235.

78. Braun T, Filleböck V, Metze B, Bühner C, Plagemann A, Henrich W. Long term alterations of growth after antenatal steroids in preterm twin pregnancies. *J Perinat Med.* 2020;49(2):127-137. doi: 10.1515/jpm-2020-0204.
79. Mehler K, Broer A, Roll C, Göpel W, Wieg C, Jahn P, Teig N, Höhn T, Welzing L, Vochem M, Hoppenz M, Bühner C, Franklin J, Roth B, Herting E, Kribs A. Developmental outcome of extremely preterm infants is improved after less invasive surfactant application. *Acta Pædiatr.* 2021;110(3):818-825. doi: 10.1111/apa.15565.
80. Endesfelder S, Strauß E, Bendix I, Schmitz T, Bühner C. Prevention of Oxygen-Induced Inflammatory Lung Injury by Caffeine in Neonatal Rats. *Oxid Med Cell Longev.* 2020;2020:3840124. doi: 10.1155/2020/3840124.
81. Kocjancic L, Bühner C, Berger F, Boos V. Effect of a Dual-Strain Probiotic on Necrotizing Enterocolitis in Neonates with Ductal-Dependent Congenital Heart Disease: A Retrospective Cohort Study. *Neonatology.* 2020;117(5):569-576. doi: 10.1159/000508831.
82. Franz AR, Engel C, Bassler D, Rüdiger M, Thome UH, Maier RF, Krägeloh-Mann I, Kron M, Essers J, Bühner C, Rellensmann G, Rossi R, Bittrich HJ, Roll C, Höhn T, Ehrhardt H, Avenarius S, Körner HT, Stein A, Buxmann H, Vochem M, Poets CF; ETTNO Investigators. Effects of Liberal vs Restrictive Transfusion Thresholds on Survival and Neurocognitive Outcomes in Extremely Low-Birth-Weight Infants: The ETTNO Randomized Clinical Trial. *JAMA.* 2020;324(6):560-570. doi: 10.1001/jama.2020.10690.
83. Behrens P, Tietze A, Walch E, Bittigau P, Bühner C, Schulz M, Aigner A, Thomale UW. Neurodevelopmental outcome at 2 years after neuroendoscopic lavage in neonates with posthemorrhagic hydrocephalus. *J Neurosurg Pediatr.* 2020;26(5):495-503. doi: 10.3171/2020.5.PEDS20211.
84. Finger T, Schaumann A, Pennacchietti V, Bühner C, Thomale UW, Schulz M. Reduced rates of infection after myelomeningocele closure associated with standard perioperative antibiotic treatment with ampicillin and gentamicin. *Childs Nerv Syst.* 2021;37(2):545-553. doi: 10.1007/s00381-020-04832-y.
85. Fröhlich M, Koga C, Bühner C, Mori C, Yamamoto M, Sakurai K, Hinkson L; Japan Environment, Children's Study Group. Differences in rate and medical indication of caesarean section between Germany and Japan. *Pediatr Int.* 2020;62(9):1086-1093. doi: 10.1111/ped.14340. PMID: 32534466.
86. Badur CA, Bühner C, Dame C. Adult Donor Blood Products as Risk Factors for Central Venous Catheter-associated Thromboembolism in Neonates: A Retrospective Case-Control Study. *J Pediatr Hematol Oncol.* 2021;43(2):e255-e259. doi: 10.1097/MPH.0000000000001821.
87. Sallmon H, Metze B, Koehne P, Opgen-Rhein B, Weiss K, Will JC, Franke CV, Hansmann G, Koestenberger M, Bühner C, Berger F, Weber SC, Cremer M. Mature and immature platelets during the first week after birth and incidence of patent ductus arteriosus. *Cardiol Young.* 2020;30(6):769-773. doi: 10.1017/S1047951120000943.
88. Longardt AC, Piening B, von Weizsäcker K, Dame C, Bühner C, Garten L. Screening for Third-Generation Cephalosporin-Resistant Bacteria Reduces the Incidence on Late-Onset Sepsis and Antibiotic use in Neonates. *Klin Pädiatr.* 2020;232(4):203-209. doi: 10.1055/a-1128-0524.
89. Stenzel M, Stüwe-Kunz L, Bühner C, Roll C. Spontaneous hypocarbia without mechanical ventilation in preterm infants with cystic periventricular leukomalacia. *Acta Pædiatr.* 2020;109(11):2292-2298. doi: 10.1111/apa.15235.
90. Muehlbacher T, Schaefer RN, Buss C, Bühner C, Schmitz T. A Closer Look at a Small Brain: Transnuchal Ultrasound Facilitates High-Resolution Imaging of the Cerebellum in Preterm Infants. *Ultraschall Med.* 2021;42(4):395-403. doi: 10.1055/a-1072-5207.
91. Fischer HS, Staufner C, Sallmon H, Henning S, Bühner C. Early Exchange Transfusion to Treat Neonates With Gestational Alloimmune Liver Disease: An 11-Year Cohort Study. *J Pediatr Gastroenterol Nutr.* 2020;70(4):444-449. doi: 10.1097/MPG.0000000000002593.
92. Hackler J, Wisniewska M, Greifenstein-Wiehe L, Minich WB, Cremer M, Bühner C, Schomburg L. Copper and selenium status as biomarkers of neonatal infections. *J Trace Elem Med Biol.* 2020;58:126437. doi: 10.1016/j.jtemb.2019.126437.
93. Bühner C. The costs of human donor milk. *Acta Pædiatr.* 2020;109(5):967. doi: 10.1111/apa.15101.
94. Seidel V, Weizsäcker K, Henrich W, Rancourt RC, Bühner C, Krüger R, Feiterna-Sperling C. Safety of tenofovir during pregnancy: early growth outcomes and hematologic side effects in HIV-exposed uninfected infants. *Eur J Pediatr.* 2020;179(1):99-109. doi: 10.1007/s00431-019-03481-x.
95. Bühner C, Fischer HS, Wellmann S. Nutritional interventions to reduce rates of infection, necrotizing enterocolitis and mortality in very preterm infants. *Pediatr Res.* 2020;87(2):371-377. doi: 10.1038/s41390-019-0630-2.
96. Hahn S, Bühner C, Schmalisch G, Metze B, Berns M. Rate of rise of total serum bilirubin in very low birth weight preterm infants. *Pediatr Res.* 2020;87(6):1039-1044. doi: 10.1038/s41390-019-0415-7.