

Dr. Karin de Punder

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Researchgate: [Karin PUNDER | PhD \(researchgate.net\)](#)

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Positions

Since 2021 Postdoctoral Researcher, Institute of Psychology, Department of Clinical Psychology II, University of Innsbruck, Innsbruck, Austria.

Projects:

- *Clinical, structural and neuroendocrine changes in adolescent patients with a personality disorder over the course of a multimodal psychodynamic psychotherapy intervention (PsyNeurEndo).*
- *Prenatal stress and programming of newborn and infant telomere biology and cellular aging.*
- *Investigating the biomolecular effects of electroconvulsive therapy on mitochondrial bioenergetics in treatment-resistant patients with major depressive disorder (MITO-ECT).*
- *Mitochondrial function and inflammation in patients with major depression exposed to childhood adversity.*

2020-2021 R&D Specialist, Natura Foundation, Numansdorp, The Netherlands.

2019-2020 Maternity Leave

2018-2020 Postdoctoral Researcher, Institute of Medical Psychology, Charité – Universitätsmedizin Berlin, Berlin, Germany.

Projects:

- *Prenatal stress and programming of newborn and infant telomere biology and cellular aging.*
- *Kids to Health (follow up BerlinLCS study)*

2014-2018 Doctoral Student/Research Assistant, Institute of Medical Psychology, Charité – Universitätsmedizin Berlin, Berlin, Germany.

Supervised by Prof. Dr. Sonja Entringer and Prof. Dr. Christine Heim

Projects:

- *Validation of a measure of in-vitro stimulated telomerase expression as a stress-related biomarker for human studies.*
- *Immediate biological embedding of maltreatment in children: Berlin Longitudinal Children Study (BerlinLCS).*
- *Biological aging and inflammation in patients with major depression exposed to childhood adversity.*

2008-2013 Research Technician, Division of Cell Biology II, Netherlands Cancer Institute (NKI-AVL), Amsterdam, The Netherlands.

- *Studying the immunology and cell biology of host pathogen interactions using*

Curriculum Vitae – Karin de Punder

microscopy and immunological techniques.

- 2005-2008 Research Technician, Division of Animal Pathology, Netherlands Cancer Institute (NKI, AVL), Amsterdam, The Netherlands.
- *Performing immunohistochemistry, histology and in vitro hybridization on animal tissue.*

Education

- 2014-2018 Doctoral Degree at the Institute of Medical Psychology, Charité – Universitätsmedizin Berlin, Berlin, Germany (**Summa cum laude**).
Thesis: Characterization in humans of in vitro leukocyte maximal telomerase activity capacity (mTAC) and association with stress.
- 2010-2013 M.Sc. Degree in Clinical Psychoneuroimmunology, University of Girona, Girona, Spain.
- 2002-2004 M.Sc. Degree in Biomedical Sciences, Leiden University, Leiden, The Netherlands.
Thesis: The MR/GR balance hypothesis in the pathogenesis of major depression.
- 1999-2002 B.Sc. Degree in Biomedical Sciences, Leiden University, Leiden, The Netherlands.

Extra Training

- 2023 University Didactic Basic Qualification – University of Innsbruck, Innsbruck, Austria.
- 2017 Workshop - Multilevel Analysis Using R, Humboldt University, Berlin, Germany.
- 2014 Workshop - Measuring the Cortisol Diurnal Profile, Arizona State University, Phoenix, AZ, USA.
- 2009 Course on Clinical Psychoneuroimmunology, Natura Foundation, Numansdorp, The Netherlands.
- 2008 Course on Nutrition, Natura Foundation, Numansdorp, The Netherlands.
- 2003 Course on Laboratory Animal Science (article 9), Leiden University, Leiden, The Netherlands.

Languages

- Dutch – Native proficiency
- English – Full professional working proficiency
- German – Full professional working proficiency

Teaching Experience

- 2024 Workshop – Psychoneuroimmunology of Stress and Health, SfgU, Zurich, Switzerland
- Since 2021 Supervisor – Master Projects, University of Innsbruck, Innsbruck, Austria.
- Since 2022 Bachelor in Clinical Psychoneuroimmunology – Scientific Reasoning, Module 19, PNI Netherlands, The Hague, The Netherlands.
- Since 2022 Master Program in Psychology – Intergenerational Transmission of Psychiatric Disease Risk, Seminar, University of Innsbruck, Innsbruck, Austria.
- Since 2022 Master Program in Psychology – Scientific Methods in Psychoneuroimmunology, Seminar, University of Innsbruck, Innsbruck, Austria.
- Since 2021 Master in Psychology – Biological Embedding of Early Life Stress in the Context of Psychiatric Disease Risk, Seminar, University of Innsbruck, Innsbruck, Austria.
- 2016-2019 Supervisor – Bachelor and Master Projects, Charité – Universitätsmedizin Berlin, Berlin, Germany.
- 2018-2019 Model Curriculum Human Medicine – Early Life Programming of Disease Susceptibility, Seminar, Module 6, Charité – Universitätsmedizin Berlin, Berlin, Germany.
- 2016-2019 Model Curriculum Human Medicine – Gene-Environment Interactions in Psychiatric Disorders, Seminar, Module 31, Charité – Universitätsmedizin Berlin, Berlin, Germany.

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- 2016-2019 Model Curriculum Human Medicine – Workshop - Measuring the Cortisol Diurnal Profile in Saliva, M07, Charité – Universitätsmedizin Berlin, Berlin, Germany.
- 2017 Psychoneuroimmunology (PNI) Autumn School – PNI and Prenatal Programming, University Witten/Herdecke, Witten, Germany.
- 2010-2013 Workshop – In the Footsteps of Antoni van Leeuwenhoek Basic Course: Introducing the Basics of Electron Microscopy, Netherlands Cancer Institute (NKI/AVL), Amsterdam, The Netherlands.

Psychobiological and Laboratory Expertise

- Psychobiological stress assessment (Trier Social Stress Test, TSST), assessment of endocrine, immune and autonomic responses
- ELISA; stress and immune markers in blood, immune cells, hair and saliva
- Telomere length and telomerase activity assay
- Mitochondrial respiratory function assessment
- Fluorescence and electron microscopy
- Glucocorticoid receptor sensitivity assay

Research Interests

Enduring psychological stress exposure, particularly during sensitive developmental windows, constitutes a severe risk factor for the development and manifestation of a broad range of physical and mental disorders that severely confer a major global burden of disease. My research interests involve unravelling the biological mechanisms underlying this risk and evolved towards the identification of biomarkers of mental health problems and resilience and new targets for intervention. Currently, I am extending this research by combining psychological assessments with biological read-outs to monitor and predict therapy responsiveness and its underlying mechanisms in the context of (psycho)therapeutic interventions, to further promote preventive, personalized and predictive medicine (3PM) treatment options for mental and physical disorders. My work focusses on the following biological mechanisms:

- Neuroendocrine system
- Immune system
- Telomere biology
- Mitochondrial function
- Metabolic function

Honours and Awards

- 2023 **Early Career Poster Award**, 53rd International Society of Psychoneuroendocrinology (ISPNE) Conference, London, UK.
- 2019 **Travel Award**, 49th International Society of Psychoneuroendocrinology (ISPNE) Conference, Milan, Italy.
- 2018 **Excellence in Salivary Bioscience Travel Award**, 48th International Society of Psychoneuroendocrinology (ISPNE) Conference, Irvine, CA, USA.

Memberships

- International Society of Psychoneuroendocrinology (ISPNE)
- The European Psychoneuroimmunology Network (EPN)
- German Brain-Immune Network (GEBIN)
- Deutsche Gesellschaft für klinische Psycho-Neuro-Immunologie

Funding

- Project **PsyNeuroEndo**: Clinical, structural and neuroendocrine changes in adolescent patients with a personality disorder through multimodal psychodynamic psychotherapy. Project proposal submitted to the Köhler-Stiftung. Approved funding amount 48,623 €.
- Co-applicant of the **NeuroCure Innovation Projects** funded project: Validation of a measure of in-vitro stimulated telomerase expression as a stress-related biomarker for human studies. Approved funding: 18,740 €.

Relevant Original and Review Articles

Impact:

- Citations – 2,734
- h-index – 22

Complete bibliography: [My Bibliography - NCBI \(nih.gov\)](#)

- **de Punder K**, Salinas-Manrique J, Dietrich DE, Karabatsiakos A. Serum levels of the steroid hormone dehydroepiandrosterone (DHEA) are associated with psychological trauma and lymphocyte telomere integrity in women suffering from depression. *Neuroimmunomodulation*. 2024;31(1):114-124. doi: 10.1159/000538893.
- Joseph J, Buss C, Knop A, **de Punder K**, Winter SM, Spors B, Binder E, Haynes JD, Heim H. Greater maltreatment severity is associated with smaller brain volume with implication for intellectual ability in young children. *Neurobiol Stress*. 2023 Sep 23;27:100576. doi: 10.1016/j.yenstr.2023.100576.
- Schaper SJ, Wölk E, Hofmann T, Friedrich T, Römer M, **de Punder K**, Rose M, Stengel A. NUCB2/nesfatin-1 in the acute stress response of obese women with high and low anxiety. *Psychoneuroendocrinology*. 2023 Sep;155:106325. doi: 10.1016/j.psyneuen.2023.106325.
- **de Punder K**, Heim C, Martens DS, Wadhwa PD, Entringer S. Maximal telomerase activity capacity (mTAC) underlies the link between the cortisol response to stress and telomere length. *Psychoneuroendocrinology*. 2023 Sep;155:106325. doi: 10.1016/j.psyneuen.2023.106325.
- Karabatsiakos A, **de Punder K**, Salinas-Manrique J, Todt M, Dietrich DE. Hair cortisol level might be indicative for a 3PM approach towards suicide risk assessment in depression: comparative analysis of mentally stable and depressed individuals versus individuals after completing suicide. *EPMA J*. 2022 Aug 30;13(3):383-395. doi: 10.1007/s13167-022-00296-z.
- Karabatsiakos A, **de Punder K**, Doyen-Waldecker C, Ramo-Fernández L, Krause S, Gump AM, Bach AM, Fegert JM, Kolassa IT, Gündel H, Ziegenhain U, Buchheim A. Reactivity of the Oxytocinergic and Neuroendocrine System Following the Adult Attachment Projective Picture System in Men of Recent Fatherhood: Results from an Exploratory Pilot Study with a Cross-Sectional Design. *Brain Sci*. 2022 Sep 28;12(10):1314. doi: 10.3390/brainsci12101314.
- Kuehl LK, **De Punder K**, Deuter CE, Martens DS, Heim C, Otte C, Wingenfeld K, Entringer S. Telomere length in individuals with and without major depression and adverse childhood experiences. *Psychoneuroendocrinology*. 2022 105762. doi:10.1016/j.psyneuen.2022.105762.
- Kleih, TS, Entringer S, Scholaske L, Kathmann N, **de Punder K**, Heim CM, Wadhwa PD, Buss C. Exposure to childhood maltreatment and systemic inflammation across pregnancy: The moderating role of depressive symptomatology. *Brain Behav Immun*. 2022 Mar;101:397-409. doi: 10.1016/j.bbi.2022.02.004.
- Dammering F, Martins J, Dittrich K, Czamara D, Rex-Haffner M, Overfeld J, **de Punder K**, Buss C, Entringer S, Winter SM, Binder EB, Heim C. The pediatric buccal epigenetic clock identifies significant ageing acceleration in children with internalizing disorder and maltreatment exposure. *Neurobiol Stress*. 2021 Sep 11;15:100394. doi: 10.1016/j.yenstr.2021.100394.

- Demeulemeester F, **de Punder K**, van Heijningen M, van Doesburg F. Obesity as a risk factor for severe COVID-19 and complications: A review. *Cells*. 2021 Apr 17;10(4):933. doi: 10.3390/cells10040933.
- Martins J, Czamara, D, Sauer, S, Rex-Haffner, M, Dittrich, K, Dörr, P, **de Punder, K**, Overfeld, J, Knop, A, Dammering, F, Entringer, S, Winter, SM, Buss, C, Heim, C, Binder, EB. Childhood adversity correlates with stable changes in DNA methylation trajectories in children and converges with epigenetic signatures of prenatal stress. *Neurobiol Stress*. 2021;15:100336. doi: 10.1016/j.ynstr.2021.100336.
- Entringer S*, **de Punder K***, Overfeld J, Karaboycheva G, Dittrich K, Buss C, Winter SM, Binder EB, Heim C. Immediate and longitudinal effects of maltreatment on systemic inflammation in young children. *Dev Psychopathol*. 2020 Dec;32(5):1725-1731. doi: 10.1017/S0954579420001686.
- **de Punder K**, Heim C, Entringer S. Association between chronotype and body mass index: The role of C-reactive protein and the cortisol response to stress. *Psychoneuroendocrinology*. 2019 Nov;109:104388. doi: 10.1016/j.psyneuen.2019.104388.
- **de Punder K**, Heim C, Wadhwa PD, Entringer S. Stress and immunosenescence: The role of telomerase. *Psychoneuroendocrinology*. 2019 Mar;101:87-100. doi: 10.1016/j.psyneuen.2018.10.019.
- **de Punder K**, Entringer S, Heim C, Deuter CE, Otte C, Wingenfeld K, Kuehl LK. Inflammatory measures in depressed patients with and without a history of adverse childhood experiences. *Front Psychiatry*. 2018;9:610. doi: 10.3389/fpsy.2018.00610.
- Entringer S, **de Punder K**, Buss C, Wadhwa PD. The fetal programming of telomere biology hypothesis: an update. *Philos Trans R Soc Lond B Biol Sci*. 2018 Mar 5;373(1741). doi: 10.1098/rstb.2017.0151.
- **de Punder K**, Heim C, Przesdzing I, Wadhwa PD, Entringer S. Characterization in humans of in vitro leucocyte maximal telomerase activity capacity and association with stress. *Philos Trans R Soc Lond B Biol Sci*. 2018 Mar 5;373(1741). doi: 10.1098/rstb.2016.0441.
- Farin HF, Jordens I, Mosa MH, Basak O, Korving J, Tauriello DV, **de Punder K**, Angers S, Peters PJ, Maurice MM, Clevers H. Visualization of a short-range Wnt gradient in the intestinal stem-cell niche. *Nature*. 2016 Feb 18;530(7590):340-3. doi: 10.1038/nature16937.
- **de Punder K**, Pruimboom L. Stress induces endotoxemia and low-grade inflammation by increasing barrier permeability. *Front Immunol*. 2015;6:223. doi: 10.3389/fimmu.2015.00223.

Book Chapters

- **de Punder K**, Karabatsiakakis A. Age-related disease: Immune system. Aging: How aging works, how we can reverse aging, and prospects for curing aging diseases, pp. 199-145. 2024, *Academic Press*. doi: 10.1016/B978-0-443-15500-0.00004-9.
- Entringer S, Lazarides C, **de Punder K**, Epel ES. Stress und Telomerbiologie. Psychosomatik - neurobiologisch fundiert und evidenzbasiert: Ein Lehr- und Handbuch, pp. 125-131. 2024, *Kohlhammer*. doi: 10.17433/978-3-17-041385-6.
- Entringer S, **de Punder K**, Verner G, Wadhwa PD. Fetal programming of telomere biology: Role of maternal nutrition, obstetric risk factors and suboptimal birth outcomes in diet, nutrition, and fetal programming. Nutrition and Health, pp. 569-593. 2017, *Springer International Publishing AG*. doi: 10.1007/978-3-319-60289-9_41.

Non-peer-reviewed Articles

- **de Punder K**, Buchheim A, Karabatsiakakis A Neuroendokrine und immunologische Veränderungen bei der Borderline-Persönlichkeitsstörung: Eine Kurzübersicht. *PTT - Persönlichkeitsstörungen: Theorie und Therapie*. November 2023, 27. Jahrgang, Heft 4, pp 340-359. doi: 10.21706/ptt-27-4-340.

Published Abstracts

- **de Punder K**, Mauracher L, Heil MH, Pircher Nöckler E, Frausing M, Maronchuk N, Tuovinen N, Deissenhammer EA, Karabatsiakis A. 2024. Characterization of the longitudinal effects of electroconvulsive therapy on mitochondrial bioenergetics in immune cells from patients with major depressive disorder. *Biochim Biophys Acta Bioenerg.* 2024, 1865:149377. doi: 10.1016/j.bbabi.2024.149377.
- Karabatsiakis A, **de Punder K**, Bondy L, Salinas-Manrique J, Dietrich DE. Mass spectrometry proteomics fingerprinting on hair identifies mitochondrial proteins that correlate with mitochondrial bioenergetics in immune cells: A multidisciplinary study to unravel novel biomarker candidates of major depressive disorder. *Biochim Biophys Acta Bioenerg.* 2024, 1865:149390. doi: 10.1016/j.bbabi.2024.149390.
- **de Punder K**, Martens DS, Moog NK, Lazarides C, Klawitter H, Lindsay K, Henrich W, Braun T, Heim C, Wadhwa PD, Buss C, Entringer S. Maternal Mediterranean diet adherence during pregnancy and newborn telomere length. *Psychoneuroendocrinology.* 2023, 160, 106914. doi: 10.1016/j.psyneuen.2023.106914.
- **de Punder K**, Overfeld J, Karaboycheva G, Winter SM, Buss C, Binder EB, Entringer S, Heim C. C-reactive protein levels in children aged 3–5 years with verified exposure to maltreatment: Sex differences and association with depression. *Brain Behav Immun.* 2019, 81:35. doi: 10.1016/j.bbi.2019.08.119.
- **de Punder K**, Heim C, Pathik D, Wadhwa, Entringer S. Maximal telomerase activity capacity (mTAC) mediates the effect of the cortisol stress response on leukocyte telomere length. *Brain Behav Immun.* 2019, 81:22. doi: 10.1016/j.bbi.2019.08.078.
- Karaboycheva G, **de Punder K**, Overfeld J, Dörr P, Dittrich K, Murray E, Binder EB, Entringer S, Heim C. Intestinal dysbiosis in maltreated children is associated with concentrations of salivary cortisol, C-reactive protein and with depressive symptoms. *Brain Behav Immun.* 2019, 81:54. doi: 10.1016/j.bbi.2019.08.178.
- Dammering F, McEwan L, Provençal N, **de Punder K**, Overfeld J, Martins J, Czamara D, Rex-Haffner M, Hoffmann F, Kobor MS, Buss C, Winter SM, Entringer S, Binder EB, Heim C. Psychiatric symptom severity mediates the effect of adversity on epigenetic aging in children aged 3–5 years. *Psychoneuroendocrinology.* 2019, 107S: 1-82. doi: 10.1016/j.psyneuen.2019.07.084.
- **de Punder K**, Overfeld J, Karaboycheva G, Winter SM, Buss C, Binder EB, Entringer S, Heim C. Elevated C-reactive protein levels in children aged 3–5 years with verified exposure to maltreatment: Sex differences and association with depressive symptoms. *Psychoneuroendocrinology.* 2019, 100:S23-S24. doi: 10.1016/j.psyneuen.2018.12.089.
- **de Punder K**, Heim C, Entringer S. Association between chronotype and body mass index: The role of C-reactive protein and the cortisol response to stress. *Psychoneuroendocrinology.* 2019, 109(Suppl 2):104388. doi: 10.1016/j.psyneuen.2019.104388.
- Dammering F, McEwan L, Provençal N, **de Punder K**, Overfeld J, Martins J, Czamara D, Rex-Haffner M, Hoffmann F, Kobor MS, Buss C, Winter SM, Entringer S, Binder EB, Heim C. Bidirectional effect of early adversity on epigenetic ageing in children: Mediation by C-reactive protein and moderation by FKBP5 gene and cortisol status. *Psychoneuroendocrinology.* 2019, 100:S49. doi: 10.1016/j.psyneuen.2018.12.169.
- **de Punder K**, Heim C, Przesdzing I, Wadhwa PD, Entringer S. Characterization of *in vitro* leukocyte maximal telomerase activity capacity (mTAC) as a stress-related measure for human studies. *Psychoneuroendocrinology.* 2017, 83S:1-89. doi: 10.1016/j.psyneuen.2017.07.378.
- **de Punder K**, Overfeld J, Dörr Pr, Dittrich K, Winter SM, Kubiak N, Karaboycheva G, Heim C. Maltreatment is associated with elevated C-reactive protein levels in 3 to 5 year-old children. *Brain Behav Immun.* 2017, 66:e17-e18. doi: 10.1016/j.bbi.2017.07.072.

- **de Punder K**, Heim C, Wadhwa PD, Entringer S. Characterization of *in vitro* leukocyte maximal telomerase activity capacity (mTAC) in humans: Association with chronic stress exposure and stress-reactivity. *Brain Behav Immun*. 2017, 66:e17. doi: 10.1016/j.bbi.2017.07.070.
- **de Punder K**, Overfeld J, Dörr P, Dittrich K, Winter SM, Kubiak N, Karaboycheva G, Heim C. Exposure to child maltreatment is associated with elevated stress and immune mediators in children aged 3–5 years. *Psychoneuroendocrinology*. 2016, 71S:39-40. doi: 10.1016/j.psyneuen.2016.07.105.
- **de Punder K**, Heim C, Wadhwa PD, Entringer S. *In vitro* stimulated leukocyte telomerase activity is associated with chronic stress exposure. *Psychoneuroendocrinology*. 2016, 71S:60-61. doi: 10.1016/j.psyneuen.2016.07.158.
- Overfeld J, Nadig-Haynes K, **De Punder K**, Dörr P, Dittrich K, Winter SM, Haynes J, Buss C, Heim C (2016). Hippocampal volume in children aged 3–5 years with verified maltreatment exposure. *Psychoneuroendocrinology*. 2016, 71S:40-41. doi: 10.1016/j.psyneuen.2016.07.107.
- **de Punder K**, Heim C, Entringer S. Plasma levels of lipopolysaccharide-binding protein in response to psychosocial stress induction: Association with sympathetic nervous system response. *Brain Behav Immun*. 2016, 57:e25. doi: 10.1016/j.bbi.2016.07.085.
- **de Punder K**, Heim C, Entringer S. Validation of a measure of in-vitro stimulated telomerase expression as a stress-related biomarker for human studies. *Psychoneuroendocrinology*. 2015, 61-67. doi: 10.1016/j.psyneuen.2015.07.573.

Conference Oral Presentations

- Serum metabolite fingerprinting identifies glyceraldehyde as a biomarker candidate of lymphocyte telomere length in depression. International Society of Psychoneuroendocrinology (ISPNE) Virtual Conference, September 2024.
- Maternal behavioral health during pregnancy and newborn telomere length. International Society of Psychoneuroendocrinology (ISPNE) Virtual Conference, September 2024.
- Stress über die Lebensspanne und Telomerbiologie (invited lecture). Kongress kPNI Swiss, Zurich, Swiss, November 2023.
- Maternal Mediterranean diet adherence during pregnancy and newborn telomere length. Annual Conference International Society of Psychoneuroendocrinology (ISPNE), London, UK, September 2023.
- Intergenerational transmission of maternal childhood maltreatment: DNA methylation pattern of the dopamine receptor D2 gene in mother-child dyads and associations with child developmental outcomes. The 18th World Association for Infant Mental Health (WAIMH) World Congress, Dublin, Ireland, July 2023.
- Stress exposure and telomere biology over the life span (invited lecture). European Psychoneuroimmunology Network (EPN) lunch seminar, Virtual, June 2023.
- The steroid hormone dehydroepiandrosterone (DHEA) counteracts the consequences of psychological trauma on immunocellular aging. Kongress der Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde (DGPPN), Berlin, Germany, November 2022.
- The steroid hormone dehydroepiandrosterone (DHEA) counteracts the consequences of psychological trauma on immunocellular aging and mitochondrial bioenergetics. German Endocrine Brain Immune Network (GEBIN) Meeting, Virtual, March 2022.
- Stress and immunosenescence: the role of telomerase. Annual Conference of the International Society of Psychoneuroendocrinology (ISPNE), Milan, Italy, September 2019.
- Stress and cellular aging-related processes. Jahrestagung Psychologie und Gehirn (PuG), Dresden, Germany, June 2019.
- C-reactive protein levels in children aged 3-5 years with verified exposure to maltreatment: Sex differences and association with depression. German Endocrine Brain Immune Network (GEBIN) Meeting/Annual Conference of the Psychoneuroimmunology Research Society (PNIRS), Berlin, Germany, June 2019.

- Maximal telomerase activity capacity (mTAC) mediates the effect of the cortisol stress response on leukocyte telomere length. German Endocrine Brain Immune Network (GEBIN) Meeting/Annual Conference of the Psychoneuroimmunology Research Society (PNIRS), Berlin, Germany, June 2019.
- Erhöhte C-reaktive Protein Spiegel in 3-5-jährigen Kindern mit frühkindlicher Misshandlung: Geschlechterunterschiede und Zusammenhang mit depressiven Symptomen. Kongress der Deutschen Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde (DGPPN), Berlin, Germany, November 2018.
- Characterization of *in vitro* leukocyte maximal telomerase activity capacity (mTAC) as a stress-related measure for human studies. Annual Conference of the International Society of Psychoneuroendocrinology (ISPNE), Zurich, Switzerland, September 2017.
- Frühkindliche Misshandlung ist assoziiert mit erhöhten Konzentrationen an Cortisol und C-reaktivem Protein im Alter von 3-5 Jahren. Kongress der Deutschen Gesellschaft für Kinder- und Jugendpsychiatrie, Psychosomatik und Psychotherapie (DGKJP), Ulm, Germany, March 2017.
- *In vitro* stimulated leukocyte telomerase activity is associated with chronic stress exposure. Jahrestagung der Deutschen Gesellschaft für Medizinische Soziologie (DGMS) und der Deutschen Gesellschaft für Medizinische Psychologie (DGMP), Berlin, Germany, September 2016.

Conference Poster Presentations

- **de Punder K**, Hildenbrand AK, Stoll T, Hill, MM, Salinas-Manrique J, Dietrich DE, Karabatsiakis A. Metabolite fingerprinting of blood serum reveals glyceraldehyde as a biomarker candidate of lymphocyte telomere length in depression. 16th World Federation of Societies of Biological Psychiatry (WFSBP), Istanbul, Turkey, June 2024.
- **de Punder K**, Laurin Mauracher, Eberhard A. Deisenhammer, Alexander Karabatsiakis. Longitudinal investigation of the effects of electroconvulsive therapy on mitochondrial bioenergetics in immune cells from treatment resistant patients with major depressive disorder. 23rd WPA World Congress of Psychiatry, Vienna, Austria, September 2023 (DOI: 10.13140/RG.2.2.21255.37281).
- **de Punder K**, Karabatsiakis A, Martens DS, Heim C, Entringer S. Early life stress and perceived chronic stress are associated with increased immune cell mitochondrial DNA copy number in healthy individuals. Bioblast 2022: BEC Inaugural Conference, Innsbruck, Austria, July 2022.
- **de Punder K**, Heim C, Entringer S. Association between chronotype and body mass index: The role of C-reactive protein and the cortisol response to stress. Annual Conference of the International Society of Psychoneuroendocrinology (ISPNE), Irvine, California, USA, September 2018.
- **de Punder K**, Overfeld J, Karaboycheva G, Winter SM, Buss C, Binder EB, Heim C. Elevated C-reactive protein levels in children aged 3-5 years with verified exposure to maltreatment: Sex differences and association with depressive symptoms. Annual Conference of the International Society of Psychoneuroendocrinology (ISPNE), Irvine, California, USA, September 2018.
- **de Punder K**, Overfeld J, Karaboycheva G, Winter SM, Buss C, Binder EB, Heim C (2018). Elevated C-reactive protein Levels in children aged 3-5 years with verified exposure to maltreatment: Association with depressive symptoms. Annual Meeting of the Society of Biological Psychiatry (SOBP), New York, USA, May 2018.
- **de Punder K**, Entringer S, Heim C, Otte C, Wingenfeld K, Kuehl LK. Increased interleukin-6 levels in patients with major depression exposed to childhood adversity. Annual Meeting of the Society of Biological Psychiatry (SOBP), New York, USA, May 2018.
- **de Punder K**, Overfeld J, Dörr P, Dittrich K, Winter SM, Kubiak N, Karaboycheva G, Heim C. Maltreatment is associated with elevated C-reactive protein levels in 3 to 5 year-old children. Annual Conference of the Psychoneuroimmunology Research Society (PNIRS), Galveston, Texas, USA, June 2017.
- **de Punder K**, Heim C, Wadhwa PD, Entringer S. Characterization of *in vitro* leukocyte maximal telomerase activity capacity (mTAC) in humans: Association with chronic stress exposure and stress-

reactivity. Annual conference of the Psychoneuroimmunology Research Society (PNIRS), Galveston, Texas, USA, June 2017.

- **de Punder K**, Overfeld J, Dörr P, Dittrich K, Winter SM, Kubiak N, Karaboycheva G, Heim C. Exposure to child maltreatment is associated with elevated stress and immune mediators in children aged 3–5 years. Annual Conference of the International Society of Psychoneuroendocrinology (ISPNE), Miami, Florida, USA, September 2016.
- **de Punder K**, Heim C, Wadhwa PD, Entringer S. *In vitro* stimulated leukocyte telomerase activity is associated with chronic stress exposure. Annual Conference of the International Society of Psychoneuroendocrinology (ISPNE), Miami, Florida, USA, September 2016.
- **de Punder K**, Heim C, Entringer S. Plasma levels of lipopolysaccharide-binding protein in response to psychosocial stress induction: Association with sympathetic nervous system response. Annual Conference of the Psychoneuroimmunology Research Society (PNIRS), Brighton, UK, June 2016.
- **de Punder K**, Heim C, Entringer S. Validation of a measure of in-vitro stimulated telomerase expression as a stress-related biomarker for human studies. Annual Conference of the International Society of Psychoneuroendocrinology (ISPNE), Edinburgh, Scotland, September 2015.

Conference Symposia

- Buchheim A, **de Punder K**, Mechanisms in the intergenerational transmission of the adverse consequences of childhood maltreatment. The 18th World Association for Infant Mental Health (WAIMH) World Congress, Dublin, Ireland, July 2023.
- Walther A, **de Punder K**. From stressed cells to failed cognition. Jahrestagung Psychologie und Gehirn (PuG), Dresden, Germany, June 2019.

Manuscript Reviews

- *Psychoneuroendocrinology*
- *Comprehensive Psychoneuroendocrinology*
- *Psychosomatic Medicine*
- *Journal of the Royal Society Interface*
- *Restorative Neurology and Neuroscience*
- *PLOS ONE*
- *Stress*
- *Journal of Neural Transmission*
- *Neurobiology of Stress*
- *Behavioural Brain Research*
- *Stress and Health*

Ongoing and Completed Master Theses

- Beckerle, Nina: Interaction effect of maternal depressive symptoms and child oxytocin receptor rs53576 genotype on child psychological symptom development (completed 2024).
- Mott, Simon: Stress and resilience in children living in a slum in the Kenyan capital Nairobi (completed 2023).
- Anna-Verena Löffler: Leukocyte telomere length in women with and without a comorbid diagnosis of attention-deficit/ hyperactivity disorder and borderline personality disorder (completed 2023).
- Tobias Höllbacher: Does psychotherapy influence gene regulation? Relationship between treatment response to catathymic imaginative psychotherapy and changes in DNA methylation of stress-related genes (2023, ongoing).
- Viola Just: Testing the association of serum lipid profiles and telomere length in peripheral blood mononuclear cells in women with and without depression (2023, ongoing).

- Amelie Katinka Hildenbrand: Testing the association between blood serum metabolites and telomere length in peripheral blood mononuclear cells and T cell subsets in women with and without a major depression disorder (completed 2023).
 - Leonard Martin Schneeberger: Sport climbing as a stress reduction measure: a study to investigate the relationship between subjective stress perception and cortisol in non-invasively collected hair samples (completed 2023).
 - Till Herzog: Associations of maternal childhood maltreatment with epigenetic regulation of the neuropeptide Y gene in immune cells: an intergenerational approach (completed 2024).
 - Denise Kager: Associations of maternal childhood abuse experiences with DNA methylation of the corticotropin-releasing hormone receptor 2 gene in mother-child dyads (2022, ongoing).
 - Katharina Thaler: Intergenerational associations of maternal childhood maltreatment with DNA methylation of the dopamine receptor 2 gene in immune cells (completed 2023).
 - Franziska Gugger: Ketamine-assisted Hypnotherapy: A review on the current status of clinical ketamine & hypnotherapy research (completed, 2023).
 - Cosima Franziska Marterer: The influence of childhood maltreatment and the need to seek medical care to become pregnant: the role of attachment style and steroid hormones (completed, 2023).
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