



DOMINIK HEIB

CURRICULUM VITAE

CONTACT

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EDUCATIONAL BACKGROUND

- 09/2016 ● **STUDENT, INFORMATION TECHNOLOGY & SYSTEMS MANAGEMENT**, Salzburg University of Applied Sciences.
- 11/2015 ● **GRADUATION WITH DOCTOR OF SCIENCE** (PhD; „Dr. rer. nat.“, summa cum laude) at the University of Salzburg (Austria), Centre for Cognitive Neuroscience (CCNS), PhD thesis: “The Functional Role of Sleep in Memory Consolidation.”
- 10/2011 - 11/2015 ● **PHD STUDENT** in the Doctoral Program: Imaging the Mind, University of Salzburg (Austria), Centre for Cognitive Neuroscience (CCNS).
- 03/2011 - 10/2011 ● **PHD STUDENT**, University of Salzburg (Austria).
- 12/2010 ● **GRADUATION WITH MASTER OF SCIENCE** (MSc; „Mag. rer. nat.“) in Psychology at the University of Salzburg (Austria). Master thesis: “The function of sleep spindles and slow oscillations in the process of declarative memory consolidation as well as their relation to general cognitive abilities.”
- 10/2005 - 12/2010 ● **STUDENT, PSYCHOLOGY**, University of Salzburg (Austria)
- 06/2004 ● **GRADUATION FROM HIGH SCHOOL** (Technisches Gymnasium Waiblingen,

PROFESSIONAL EXPERIENCE

- 08/2016 - PRESENT ● SENIOR SCIENTIST at the Centre for Cognitive Neuroscience, University of Salzburg.
- 01/2016 - 8/2016 ● POSTDOC POSITION at the Centre for Cognitive Neuroscience, University of Salzburg (Austria, Prof. Dr. Schabus) Project: "Consciousness research across healthy vigilance states and disorders of consciousness" funded by the Austrian Science Fund (FWF).
- 10/2012 - 12/2015 ● RESEARCH ASSISTANT at the University of Salzburg (Austria) Project: "The role of memory strength for processes of sleep- associated memory consolidation." funded by the Austrian Science Fund (FWF).
- 09/2012 - 10/2012 ● RESEARCH ASSISTANT at the University of Salzburg (Austria) Project: "The meaning of alpha phase synchronization for memory." funded by the Austrian Science Fund (FWF).
- 12/2009 - 03/2012 ● RESEARCH ASSISTANT at the University of Salzburg (Austria) Project: "Sensorimotor conditioning as a primary insomnia treatment." funded by the Austrian Science Fund (FWF).
- 08/2009 - 09/2009 ● INTERNSHIP at the sleep laboratory of the Christophsbad Göppingen (Germany).
- 02/2009 - 04/2009 ● INTERNSHIP at the "Laboratory for Sleep and Consciousness Research" University

PEER REVIEW ACTIVITIES

Journal of Neuroscience, Journal of Cognitive Neuroscience, Journal of Sleep Research, SLEEP, Neuroscience & Biobehavioral Reviews, Physical Review, Neurobiology of Learning and Memory, Psychophysiology

PUBLICATIONS

Impact factors correspond to "ISI Web of Knowledge 5-year impact factors"

„IN PRESS & ACCEPTED“

Wielek, T., Lechinger, J., Wislowska, M., Blume, C., Ott, P., Wegenkittel, S., DelGiudice, R., **Heib, D. P. J.**, Mayer, H., Laureys, S., Pichler, G., & Schabus, M. (accepted). Sleep in patients with disorders of consciousness as characterized by machine learning. *PLoS ONE*. *Impact factor: 3.702*.

2017

Schabus, M., Griessenberger, H., Gnjezda, M.-T., **Heib, D. P. J.**, Wislowska, M., & Hoedlmoser, K. (2017). Better than sham? A double-blind placebo-controlled neurofeedback study in primary insomnia. *Brain*, 140 (2), 1-12. *Impact factor: 10.545*

Wislowska, M., del Giudice, R., Lechinger, J., Wielek, T., **Heib, D.**, Pitiot, A., Pichler, G., Michitsch, G., Donis, J. and Schabus, M. (accepted). Night and day variations of sleep in patients with disorders of consciousness. *Scientific Reports*, 7 (266), 1-11. *Impact factor: 5.525*

2016

Blume, C., del Giudice, R., Lechinger, J., Wislowska, M., **HEIB, D.P.J.**, Hoedlmoser, K., & Schabus, M. (2016). Preferential processing of emotionally and self-relevant stimuli persists in unconscious N2 sleep. *Brain & Language*. *Impact factor: 3.274*.

Wislowska, M., **Heib, D.P.J.**, Griessenberger, H., Hödlmoser, K., & Schabus, M. (2016). Individual baseline memory performance and its significance for sleep-dependent memory consolidation. *Sleep Spindles & Cortical Up States: A Multidisciplinary Journal*, 0(0), 1-12. DOI: 0.1556/2053.1.2016.001

del Giudice, R., Blume, C., Wislowska, M., Lechinger, J., **HEIB, D.P.J.**, Pichler, G., Donis, J., Michtisch, G., Gnjezda, M.-T., Chinchilla, M., Machado, C., & Schabus, M. (2016). Can self-relevant stimuli help assessing patients with disorders of consciousness? *Consciousness & Cognition*, 44, 51-60. *Impact factor: 2.428*.

del Giudice, R., Blume, C., Wislowska, M., Wielek T., P.J. **Heib, D.P.J.**, & Schabus, M. (2016). The Voice of Anger: Oscillatory EEG Responses to Emotional Prosody. *Plos One*, 11(7), e0159429. *Impact Factor: 3.70*

2015

Lechinger, J., **HEIB, D.P.J.**, Gruber, W., Schabus, M., & Klimesch, W. (2015). Heartbeat-related EEG amplitude and phase modulations from wakefulness to deep sleep - interactions with sleep spindles and slow oscillations. *Psychophysiology*, 52(11), 1441-1450. *Impact factor: 3.696*.

HEIB, D.P.J., Hoedlmoser, K., Anderer, P., Gruber, G., Zeitlhofer, J., Schabus, M. (2015). Oscillatory Theta Activity during Memory Formation and Its Impact on Overnight Consolidation: A Missing Link? *Journal of Cognitive Neuroscience*, 27 (8), 1648-1658. *Impact factor: 5.259*.

Blume, C., Lechinger, J., del Giudice, R., Wislowska, M., Heib, D.P.J., & Schabus, M. (2015). EEG oscillations reflect the complexity of social interactions in a non-verbal social cognition task using animated triangles. *Neuropsychologia*, 75, 330-340. *Impact factor: 4.178*.

PUBLICATIONS

Impact factors correspond to "ISI Web of Knowledge 5-year impact factors"

2014

HEIB, D. P. J., Hoedlmoser, K., & Schabus, M. (2014). *Experimentelle Manipulation von Prozessen der Gedächtniskonsolidierung im Schlaf*. In H. Schulz, P. Geisler & A. Rodenbeck (Eds.), *Kompodium Schlafmedizin* (Vol. 21, Kapitel II-9.4). Landsberg: ecomed Medizin.

Schabus, M., **HEIB, D. P. J.**, & Hoedlmoser, K. (2014). *Informationsbahnung temporärer und dauerhafter Muster im Schlaf*. In H. Schulz, P. Geisler & A. Rodenbeck (Eds.), *Kompodium Schlafmedizin* (Vol. 21, Kapitel II-4.1). Landsberg: ecomed Medizin.

Schabus, M., **HEIB, D.P.J.**, Lechinger, J., Griessenberger, H., Klimesch, W., Pawlizki, A., Kunz, A.B., Sterman, B.M., & Hoedlmoser, K. (2014). Enhancing sleep quality and memory in insomnia using instrumental sensorimotor rhythm conditioning. *Biological Psychology*, 95, 126-134. *Impact factor: 3.945.*

del Giudice, R., Lechinger, J., Wislowska, M., **HEIB, D.P.J.**, Hoedlmoser, K. & Schabus, M. (2014). Oscillatory brain responses to own names uttered by unfamiliar and familiar voices. *Brain Research*, 1591, 63-73. *Impact factor: 2.988.*

Hoedlmoser, K., **HEIB, D.P.J.**, Roell, J., Peigneux, P., Sadeh, A., Gruber, G., & Schabus, M. (2014). Slow sleep spindle activity, declarative memory and general cognitive abilities in children. *SLEEP*, 37(9), 1501-1512. *Impact factor: 5.753.*

2013

HEIB, D.P.J., Hoedlmoser, K., Anderer, P., Zeitlhofer, J., Gruber, G., Klimesch, W., & Schabus, M. (2013). Slow oscillation amplitudes and up-state lengths relate to memory improvement. *PLoS ONE* 8(12), e82049. *Impact factor: 3.702.*

Wisłowska, M., Werner, G., Möckel, T., Hödlmoser, K., **HEIB, D.P.J.**, & Schabus, M. (2013). *Sleep, Memory and Emotions*. In Mohiyeddini, C., Eysenck, M., & Bauer, S. (Eds.), *Psychology of Emotions*. New York, USA: Nova Publishers.

Griessenberger, H., **HEIB, D.P.J.**, Kunz, A.B., Hoedlmoser, K., & Schabus, M. (2013). Assessment of a wireless headband for automatic sleep scoring. *Sleep and Breathing*, 17(2), 747-752. *Impact factor: 2.376.*

Griessenberger, H., **HEIB, D.P.J.**, Lechinger, J., Luketina, N., Petzka, M., Möckel, T., Hoedlmoser, K., & Schabus, M. (2013). Susceptibility to declarative memory interference is pronounced in primary insomnia. *Plos ONE*, 8(2), e57394. *Impact factor: 3.702.*

2012

Griessenberger, H., Hoedlmoser, K., **HEIB, D.P.J.**, Lechinger, J., Klimesch, W., & Schabus, M. (2012). Consolidation of temporal order in episodic memories. *Biological Psychology*, 91(1), 150-155. *Impact factor: 3.945*

Schabus, M., Dang-Vu, T., **HEIB, D.P.J.**, Boly, M., Desseilles, M., Vandewalle, G., Schmidt, C., Albouy, G., Darsaud, A., Gais, S., Degueldre, C., Balteau, E., Phillips, C., Luxen, A., & Maquet, P. (2012). The fate of incoming stimuli during NREM sleep is determined by spindles and the phase of the slow oscillation. *Frontiers in Neurology*, 3(40), 1-11.

ORAL PRESENTATIONS

Oscillatory theta activity during memory formation and its impact on overnight consolidation: A missing link? Talk presented at the Wintersymposium "Sleep, Cognition and Consciousness", *Kaprun, Austria, January, 22nd – 25th 2015.*

Theta activity during memory formation before sleep is related to consolidation processes during sleep. Invited speaker at the 40th conference on „Psychologie und Gehirn“, *Lübeck, June 19th – 21th 2014.*

Theta activity during recall indicates overnight memory consolidation. Talk presented at the 5th Dubrovnik Conference on Cognitive Science, *Dubrovnik, Croatia, May 16th – 19th 2013.*

Theta synchronization during retrieval indicates overnight memory consolidation. Talk presented at the 55th Conference of Experimental Psychologists, *Vienna, Austria, March 24th – 27th 2013.*

Theta synchronization during retrieval indicates overnight memory consolidation, Talk presented at „Sleep, Cognition and Consciousness“ Symposium, *Salzburg, Austria, December 13th – 14th 2012.*

Overnight ERS/ERD changes in memory recall. Talk presented at “Oscillations and Consciousness” Workshop, *Strobl, Austria, September 28th – 29th 2012.*

POSTERS (PRESENTING AUTHOR UNDERLINED)

2017

Hahn, M., Joechner, A., **Heib, D. P. J.**, Schabus, M., & Hoedlmoser, K. (2017). Developmental changes of slow wave up-states relate to increased cognitive abilities across adolescence. Poster presented at the 13th International Conference on Cognitive Neuroscience (ICON), *Amsterdam, The Netherlands August 5th-9th 2017.*

Wielek, T., Blume C., Ott, P., Wislowska, M., **Heib, D.**, & Schabus, M. (2017). Decoding brain responses to own names uttered by familiar and unfamiliar voices. Poster presented at the 13th International Conference for Cognitive Neuroscience, *Amsterdam, The Netherlands August 5th-9th 2017.*

Blume, C., del Giudice, R., Wislowska, M., **Heib, D. P. J.**, & Schabus, M. (2017). Continued Evaluation of Stimulus Familiarity during Naturally Occurring Unconsciousness. Poster presented at the 13th International Conference on Cognitive Neuroscience (ICON), *Amsterdam, The Netherlands August 5th-9th 2017.*

2016

Heib, D.P.J., Bäuml, K-H.T., & Schabus, M. (2016). The impact of memory strength on sleep-associated memory consolidation. Poster presented at the 23rd Meeting of the European Sleep Research Society (ESRS), *Bologna, Italy, September 13th-16th 2016.*

POSTERS (PRESENTING AUTHOR UNDERLINED)

2016

Heib, D.P.J., Bäuml, K.-H.T., & Schabus, M. (2016). The impact of memory strength on sleep-associated memory consolidation. Poster presented at the 23rd Meeting of the European Sleep Research Society (ESRS), *Bologna, Italy, September 13th-16th 2016*.

Blume, C., del Giudice, R., Wislowska, M., Heib, D.P.J., Hoedlmoser, K. & Schabus, M. (2016). Privileged processing of emotional and self-relevant stimuli persists in unconscious N2 sleep. Poster presented at the 23rd Congress of the European Sleep Research Society (ESRS), *Bologna, Italy, September 13th - 16th 2016*.

van Schalkwijk, F.J., Heib, D.P.J., Hödlmoser, K., Muto, V., Klösch, G., Anderer, P., Zeitlhofer, J., & Schabus, M. (2016). The effect of napping on the consolidation of explicit and implicit information. Poster presented at the 23rd Meeting of the European Sleep Research Society (ESRS), *Bologna, Italy, September 13th-16th 2016*.

Hoedlmoser, K., Roell, J., Joehner, A., Hahn, M., Heib, D.P.J., Gruber, G., Sadeh, A., Peigneux, P., & Schabus, M. (2016). The impact of developmental changes of sleep spindles on declarative learning and general cognitive abilities - a longitudinal approach. Poster presented at the 23rd Meeting of the European Sleep Research Society (ESRS), *Bologna, Italy, September 13th-16th 2016*.

Schabus, M., Wislowska, M., del Giudice, R., Lechinger, J., Chwala-Schlegel, N., Pitiot, A., Heib, D., Chinchilla, M., & Machado, C. (2016). Circadian fluctuations of EEG and graphoelements during sleep in patients with disorders of consciousness. Poster presented at the 18th IOP World Congress, *Havana, Cuba, August 31st - September, 4th 2016*.

Wislowska, M., del Giudice, R., Lechinger, J., Chwala-Schlegel, N., Pitiot, A., Heib, D. & Schabus, M. (2016). Circadian Fluctuations of Arousal in Patients with Disorders of Consciousness. Poster presented at the 20th Annual Meeting of the Association for the Scientific Study of Consciousness (ASSC), *Buenos Aires, Argentina, June 15th - 18th 2016*.

2015

Blume C., del Giudice R., Wislowska M., Lechinger J., HEIB D.P.J., Koerner D., Hoedlmoser, K., & Schabus, M. (2015). Emotion matters! Effects of emotional prosody on stimulus processing across consciousness states. Paper presented at the 19th Annual Meeting of the Association for the Scientific Study of Consciousness (ASSC), *Paris, France, July 7th - 10th 2015*.

Blume C., del Giudice R., Wislowska M., Lechinger J., HEIB D.P.J., Koerner D., Hoedlmoser, K., & Schabus, M. (2015). Emotion matters! Effects of emotional prosody on stimulus processing across consciousness states. Paper presented at the 19th Annual Meeting of the Association for the Scientific Study of Consciousness (ASSC), *Paris, France, July 7th - 10th 2015*.

2014

HEIB, D.P.J., Luketina, N., Holterman, C., Bäuml, K.-H.T., & Schabus, M. (2014). The role of memory strength for sleep-associated memory consolidation. Paper presented at the 22nd Congress 7 of the European Sleep Research Society (ESRS), *Tallinn, Estonia, September 16th - 20th 2014*.

Himmer, L., Schoenauer, M., HEIB, D., Schabus, M., & Gais, S. (2014). Sleep accelerates learning-related changes in brain activity. Paper presented at the 22nd Congress 7 of the European Sleep Research Society (ESRS), *Tallinn, Estonia, September 16th - 20th 2014*.

Schabus, M., Lechinger, J., Jiang, H., HEIB, D.P.J., Wislowska, M., & Jensen, O. (2014). Source reconstruction of slow and fast sleep spindles using a frequency-domain beamformer approach - A MEG/EEG study. Paper submitted for the 19th International Conference on Biomagnetism (BIOMAG), *Halifax, Canada, August 24th - 26th, 2014*.

POSTERS (PRESENTING AUTHOR UNDERLINED)

2014

Schabus, M., Griessenberger, H., **HEIB, D.P.J.**, Koerner, D., & Hoedlmoser, K. (2014). Sleep-dependent memory consolidation and neurofeedback in insomnia A long-term study. Paper presented at the 12th International Conference on Cognitive Neuroscience (ICON), *Brisbane, Australia, 27th – 31st of July 2014.*

Schabus, M., Griessenberger, H., **HEIB, D.P.J.**, Koerner, D., & Hoedlmoser, K. (2014). Sleep-dependent memory consolidation and neurofeedback in insomnia A long-term study. Paper presented at the 12th International Conference on Cognitive Neuroscience (ICON), *Brisbane, Australia, 27th – 31st of July 2014.*

2013

del Giudice, R., Lechinger, J., Wislowska, M., **HEIB, D.P.J.**, Koerner, D., Hoedlmoser, K., & Schabus, M. Can we tackle attention in disorders of consciousness? Validation of a new paradigm to assess patients with altered states of consciousness. Paper presented at the Rovereto Attention Workshop (RAW 2013), *Rovereto, Italy, October 24 – 26, 2013.*

Wislowska, M., **HEIB, D.P.J.**, Hoedlmoser, K., Griessenberger, H. & Schabus, M. (2013). Mechanisms Underlying Declarative Memory Consolidation Are Changing with Age. Paper presented at the World Congress on Sleep Medicine (WASM), *Valencia, Spain, September 28th – October 2nd 2013.*

Wislowska, M., **HEIB, D.P.J.**, Griessenberger, H., Hoedlmoser, K., Lechinger, J. & Schabus, M. (2013). Age Matters! Sleep-Dependent Memory Consolidation in Disturbed Sleep. Paper presented at the 5th Dubrovnik Conference on Cognitive Science (DuCog), *Dubrovnik, Croatia, May 16th – 19th 2013.*

2012

HEIB, D.P.J., Hoedlmoser, K., Klimesch, W., Griessenberger, H., Zeitlhofer, J., Gruber, G., Anderer, P., & Schabus, M. (2012). EEG theta synchronization during retrieval indicates overnight memory consolidation. (2012). Paper presented at the 21st Congress of the European Sleep Research Society (ESRS), *Paris, France, 4th – 8th of September, 2012.*

HEIB, D.P.J., Hoedlmoser, K., Griessenberger, H., Zeitlhofer, J., Gruber, G., Anderer, P., & Schabus, M. (2012). Slow oscillation amplitudes and up-state lengths relate to memory improvement. (2012). Paper presented at the 21st Congress of the European Sleep Research Society (ESRS), *Paris, France, 4th – 8th of September, 2012.*

Schabus, M., Dang-Vu, T. T., Boly, M., **HEIB, D.P.J.**, Desseilles, M., Albouy, G., Darsaud, A., Schmidt, C., Gais, S., Vandewalle, G., Phillips, C., Degueldre, C., Balteau, E., Luxen, A., & Maquet, P. (2012). The fate of incoming stimuli during deep sleep is determined by spontaneous NREM sleep features. Poster presented at the 18th Annual Meeting of the Organization for Human Brain Mapping, *Beijing, China, 10th – 14th of June, 2012.*

Griessenberger, H., **HEIB, D.P.J.**, Petzka, M., Luketina, N., Möckel, T., Lechinger, J., Hoedlmoser, K. & Schabus, M. (2012). Sleep dependent learning in primary insomnia and good sleeper controls. Paper presented at the 10th Annual Meeting of the “Österreichische Gesellschaft für Psychologie (ÖGP)”, *Graz, Austria, 12th – 14th of April, 2012.*

HEIB, D.P.J., Hoedlmoser, K., Griessenberger, H., Klimesch, W., & Schabus, M. (2012). The role of sleep slow oscillations in the process of declarative memory consolidation as well as their relation to general cognitive abilities. Paper presented at the 10th Annual Meeting of the “Österreichische Gesellschaft für Psychologie (ÖGP)”, *Graz, Austria, 12th – 14th of April, 2012.*

POSTERS (PRESENTING AUTHOR UNDERLINED)

2011

HEIB, D.P.J., Hoedlmoser, K., Griessenberger, H, Klimesch, W., & Schabus, M. (2011). The sleep slow oscillation in the human EEG and its relation to general cognitive abilities. Paper presented at the 11th International Conference On Cognitive Neuroscience, *Mallorca, Spain, 25th – 29th of September, 2011.*

Schabus, M., Griessenberger, H, Hoedlmoser, K., HEIB, D., & Klimesch, W. (2011). Sensorimotor-rhythm neurofeedback and its effect on EEG and sleep quality. Paper presented at the 11th International Conference On Cognitive Neuroscience, *Mallorca, Spain, 25th – 29th of September 2011.*

Schabus, M., Hoedlmoser, K., Griessenberger, H., HEIB, D., Pawlizki, A., & Klimesch, W. (2011). Instrumental conditioning of 12-15Hz brain oscillations enhances EEG frequencies and sleep quality. Paper presented at the 17th Annual Meeting of the Organization of Human Brain Mapping (HBM), *Quebec City, Canada, 26th – 30th of June 2011.*

HEIB, D., Hoedlmoser, K., Klimesch, W., & Schabus, S. Der Zusammenhang zwischen langsamen Oszillationen (<1 Hz) und allgemeinen kognitiven Fähigkeiten. (2011). Paper presented at the Annual Meeting of the Austrian Sleep Research Association (ASRA), *Seggau, Austria, 13th – 15th of May 2011.*

HEIB, D., Griessenberger, H., & Schabus, M. (2011). ZEO, ein revolutionaries low- budget scoring System? Paper presented at the Annual Meeting of the Austrian Sleep Research Association (ASRA), *Seggau, Austria, 13th – 15th of May 2011.*

Hoedlmoser, K., HEIB, D., Pawlizki, A., Gruber, G., Klimesch, W., & Schabus, S. (2010). Instrumental conditioning of brain oscillations – a non pharmacological alternative for the treatment of insomnia? Paper presented at the 20th Congress of the European Sleep Research Society, *Lisbon, Portugal, 14th – 18th of September 2010.*

WORKSHOPS

“Imaging the Mind” Summer School “Brain connectivity measured with EEG and fMRI”, *Eugendorf, Austria, 7h – 7th of January, 2016.*

1 week MEG training (Donders Institute for Cognitive Neuroimaging, Supervisor: Ole Jensen), *Nijmegen, Netherlands, 24th – 26th of January, 2014.*

“Imaging the Mind” Summer School “Aspects of Functional and Structural Brain Connectivity”, *Strobl, Austria, 24th – 26th of June, 2013.*

Workshop „Oscillations and Consciousness“, *Strobl, Austria, 28th – 29th of September 2012.*

“Sleep Staging Workshop” (Instructor: Marion Böck, Austrian Sleep Research Association), *Salzburg, Austria, 4th – 5th of September 2012.*

“Imaging the Mind” Summer School “The Human Mind: A Biopsychosocial Perspective”, *Salzburg, Austria, 12th – 14th of July, 2012.*

ÖGP (juwis) Summerschool “Presenting, Writing, Funding – Themen für den Eintritt in die Scientific Community“, *Spital am Pyhrn, Austria, 20th – 22th of July 2011.*

“FWF Coaching - Workshop“, *Salzburg, Austria, 26th of May 2011.*

“Digital Filter - Workshop“, *Salzburg, Austria, 24th – 25th of March 2011 + 8th of April, 2011.*

Workshop „EEG Brain Dynamics in Sleep and Memory“, *Strobl, Austria, 17th – 18th of June 2010.*

Workshop “Psychologische und psychotherapeutische Behandlungsansätze bei Insomnien“, *Igls, Austria, 25th of April, 2010.*