



# CURRICULUM VITAE

DR. CHRISTINE BLUME  
DIPLOM PSYCHOLOGIST

## PERSONAL INFORMATION

<b>Address</b>	Centre for Chronobiology Wilhelm-Klein Str. 27 4002 Basel Switzerland <a href="mailto:christine.blume@upk.ch">christine.blume@upk.ch</a>
<b>Web page</b>	<a href="http://www.christine-blume.com">www.christine-blume.com</a> <a href="http://www.chronobiology.ch">www.chronobiology.ch</a>
<b>Nationality</b>	German

## EDUCATION

<b>December 2016</b>	Paris-Lodron-University Salzburg, Austria, Doctorate in natural sciences (Dr. rer. nat.), grade „summa cum laude“; Thesis title: “Circadian Variations in Consciousness – Insights from Healthy Sleep and Brain-Injured Patients” (Reviewers: Univ.-Prof. Dr. Manuel Schabus, Prof. Dr. Christian Cajochen)
<b>January 2014 - December 2016</b>	Student of the Doctoral College “Imaging the Mind” funded by the FWF Austrian Science Fund (W1233-G17), University of Salzburg, Austria
<b>October 2013 - December 2016</b>	PhD student at the Paris-Lodron-University of Salzburg, Austria, Centre for Cognitive Neuroscience (CCNS), Laboratory for „Sleep and Consciousness Research“. Supervisor: Univ.-Prof. Dr. Manuel Schabus
<b>November 2012</b>	Julius-Maximilians-University Würzburg, Germany, Diploma in psychology; Topic of the diploma thesis: „The „HisMine“-Paradigm: a new paradigm for the detection of self-awareness“. Supervisors: Prof. Dr. A. Kübler, PD Dr. C. Herbert
<b>October 2010 - June 2011</b>	Studies of psychology, neurobiology & pharmacology at Pembroke College, University of Cambridge, UK
<b>April 2007 - March 2013</b>	Studies of psychology (diploma) at the Julius-Maximilians-University Würzburg, Germany
<b>1997 -2006</b>	Gymnasium in der Taus, Backnang, Germany (Abitur)

## PROFESSIONAL EXPERIENCE

<b>since January 2019</b>	Post-doctoral researcher at the Centre for Chronobiology in Basel, Switzerland with an Erwin-Schrödinger Fund from the Austrian Science Fund (FWF; J-4243).
<b>January-July 2018</b>	Member of the local organising committee for the "Salzburg Mind-Brain Annual Meeting" (SAMBA)
<b>January 2017 - December 2018</b>	Post-doctoral researcher in the project "Consciousness research across healthy vigilance states and disorders of consciousness" funded by the Austrian Science Fund (FWF; Y-777)  Scientific coordinator of the Doctoral College "Imaging the Mind" funded by the FWF Austrian Science Fund (W1233), University of Salzburg, Austria
<b>October 2015 - July 2016</b>	Member of the Organisational Committee for the 28th World Schools Debating Championship (WSDC) in <i>Stuttgart, Germany, 19th-29th July 2016</i>
<b>October 2014 - December 2016</b>	Research associate in the project "Consciousness research across healthy vigilance states and disorders of consciousness" funded by the FWF Austrian Science Fund (Y-777)
<b>February - September 2013</b>	Student employee in the project group "Human Resources Development International" at Würth Industrie Service GmbH & Co. KG
<b>April 2012 - July 2013</b>	Tutor at Department of Psychology I for Biological Psychology, Clinical Psychology and Psychotherapy
<b>April - June 2011</b>	Research student at the Medical Research Council Cognition and Brain Sciences Unit (MRC CBU), Cambridge, UK (Supervisor: Dr. Tristan Bekinschtein)
<b>May 2009 - July 2010</b>	Student collaborator in a business psychology project, conceptualisation and implementation of a development centre for Würth Industrie Service GmbH & Co. KG

## GRANTS & THIRD PARTY FUNDING

<b>January 2019 - December 2021</b>	Erwin-Schrödinger Fellowship of the Austrian Science Fund (FWF; J-4243; € 177.805,00). Principal Investigator: Dr. Christine Blume
<b>January 2014 - December 2017</b>	PhD scholarship of the Konrad-Adenauer-Stiftung e.V., Germany (€ 49.000,00)

## SCHOLARSHIPS & AWARDS

<b>September 2018</b>	Giselher-Guttman-Prize from the Austrian Society for Neuropsychology (GNPÖ) for the work on circadian rhythms in brain-injured patients  Poster prize awarded by the Young Austrian Neuroscience Association (ANA) at the Salzburg Neuroscience Day
<b>May 2017</b>	Young Investigators Award of the University of Salzburg, Austria
<b>October 2010 - June 2011</b>	One-year grant from the German Academic Exchange Service (DAAD)
<b>December 2007 - November 2012</b>	Scholarship of the Studienstiftung des deutschen Volkes e.V.

## INTERNSHIPS, SUMMER SCHOOLS & WORKSHOPS

<b>February 2017</b>	Coma-Recovery-Scale Revised (CRS-R) Training at Coma Science Group University Hospital of Liège, Liège, Belgium
<b>September 2015</b>	Research stay at the Clinical Research Centre, University of Surrey, Guildford, UK (Dr. Nayantara Santhi, Prof. Dr. Derk-Jan Dijk) 20 <sup>th</sup> EEGlab workshop, University of Sheffield, Sheffield, UK
<b>August 2014</b>	Radboud University Summer School on "Neural metrics", Nijmegen, The Netherlands

## TEACHING EXPERIENCE

<b>since 2014</b>	Several lectures and seminars on circadian rhythms, sleep & consciousness and cognitive neuroscience for biology and psychology students Empirical seminars on sleep, cognition and circadian rhythms involving MEG and EEG recordings for MSc students Co-supervision of master students (exemplary topics: circadian rhythms in brain-injured patients; cognitive processing and circadian rest-activity cycles in disorders of consciousness patients; effects of light stimulation on circadian rhythms in disorders of consciousness patients and cognitive processes in healthy control participants)
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## PUBLICATIONS (H-INDEX: 7)

<b>Preprint</b>	<b>Blume, C.</b> , & Schabus, M. (2019, February 20). Sentinel or rather standby? Regardless of terminology, information processing continues during sleep. <a href="https://doi.org/10.31219/osf.io/bq8hr">https://doi.org/10.31219/osf.io/bq8hr</a>
<b>2019</b>	<b>Blume, C.</b> , Angerer, M., Raml, M., del Giudice, R., Santhi, N., Pichler, G., Scarpatetti, M., Kunz, A. B., Trinkka, E., & Schabus, M. (accepted). Healthier Rhythm, Healthier Brain? Integrity of Circadian Melatonin and Temperature Rhythms Relates to the Clinical State of Brain-Injured Patients. <i>European Journal of Neurology</i> . doi:10.1111/ene.13935
<b>2018</b>	Wisłowska M., <b>Blume C.</b> , Angerer M., Wielek T., & Schabus M. (2018). Approaches to Sleep in Severely Brain Damaged Patients – Further comments and replies to Kotchoubey & Pavlov. <i>Clinical Neurophysiology</i> . doi:https://doi.org/10.1016/j.clinph.2018.08.029 <b>Blume C.</b> , del Giudice R., Wisłowska M., Heib D. P. J., & Schabus M. (2018). Standing sentinel during sleep: continued evaluation of environmental stimuli in the absence of consciousness. <i>NeuroImage</i> . Doi: 10.1016/j.neuroimage.2018.05.056 Schabus M., Wisłowska M., Angerer M., <b>Blume C.</b> (2018). Sleep and Circadian Rhythms in Severely Brain-Injured Patients – A Comment. <i>Clinical Neurophysiology</i> , doi:https://doi.org/10.1016/j.clinph.2018.03.048. Wielek T., Lechinger J., Wisłowska M., <b>Blume C.</b> , Ott P., Wegenkittl S., del Giudice R., Heib D. P. J., Mayer H. A., Laureys S., Pichler G., & Schabus M. (2018). Sleep in patients with disorders of consciousness characterized by means of

machine learning. *PLOS ONE*, 13(1), e0190458.  
doi:10.1371/journal.pone.0190458

2017

**Blume C.**, Lechinger J., Santhi N., del Giudice R., Gnjezda M.-T., Pichler G., Scarpattetti M., Donis J., Michitsch G., & Schabus M. (2017). Significance of circadian rhythms in severely brain-injured patients: A clue to consciousness? *Neurology*. doi:10.1212/wnl.0000000000003942

2016

del Giudice R., **Blume C.**, Wislowska M., Lechinger J., Heib D. P. J., Pichler G., Chinchilla M., Machado C. & Schabus M. (2016). Can self-relevant stimuli help assessing patients with disorders of consciousness? *Consciousness and Cognition*, 44, 51-60.

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

**Blume C.**, Santhi N., & Schabus M. (2016). 'nparACT' package for R - A free software tool for the non-parametric analysis of actigraphy data. *MethodsX*. doi: 10.1016/j.mex.2016.05.006

Lechinger J., Wielek T., **Blume C.**, Pichler G., Michitsch G., Donis J., Gruber W., Schabus, M. (2016). Event-related EEG power modulations and phase connectivity indicate the focus of attention in an auditory own name paradigm. *Journal of Neurology*, 1-14. doi:10.1007/s00415-016-8150-z

**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 and Language*. doi:10.1016/j.bandl.2016.02.004

Herbert C., **Blume C.**, & Northoff G. (2016). Can we distinguish an "I" and "ME" during listening?—an event-related EEG study on the processing of first and second person personal and possessive pronouns. *Self and Identity*, 15(2), 120-138.

2015

**Blume C.\***, del Giudice R.\*, Wislowska M.\*, Lechinger J., & Schabus M. (2015). Across the consciousness continuum—from unresponsive wakefulness to sleep. *Frontiers in Human Neuroscience*, 9, 105. doi: 10.3389/fnhum.2015.00105

2014

**Blume C.**, & Herbert C. (2014). The HisMine-Paradigm: A new paradigm to investigate self-awareness employing pronouns. *Social Neuroscience*, 9(3), 289-299. doi: 10.1080/17470919.2014.886616

## INVITED TALKS & WORKSHOPS

July 2018

**Blume C.** (2018). Sleep & Circadian Rhythms in Severely Brain-Injured Patients. Talk at the "Neuroreha" Symposium at the Asklepios Stadtklinik Bad Tölz, *Bad Tölz, Germany, July 18th 2018.*

June 2018

**Blume C.**, Angerer M., Raml M., del Giudice R., Santhi N., Pichler G., Kunz A.B., Trinkka E., Schabus M. (2018). Body Rhythms in Concert? Integrity of Circadian Rhythms is Related to the State of Brain-Injured Patients. Talk at the 22nd Conference of the Association for the Scientific Study of Consciousness. *Krakow, Poland, May 26th-29th 2018.*

<b>May 2018</b>	<b>Blume C.</b> & Herbert C. Talk & symposium chair at "Psychologie & Gehirn 2018", session title "Emotion and Self-Processing in the Brain Across the Sleep-Wake Cycle". <i>Gießen, Germany, May 31st-June 2nd 2018.</i>
<b>May 2018</b>	<b>Blume C.</b> , del Giudice R., Wislowska M., Heib D.P.J., Schabus M. (2018). (No) Need to Wake up? Inhibitory Function of Sleep Spindles is Tuned to Stimulus Salience. Talk at the 3rd International Conference on Sleep Spindling, <i>Budapest, Hungary, May 24th-26th 2018.</i>
<b>March 2018</b>	<b>Blume C.</b> (2018). Circadian Rhythms in Severely Brain-Injured Patients. Talk at the Symposium "10 Years of Consciousness Research" at the Albert-Schweitzer Hospital <i>Graz, Austria, March 14th 2018.</i>
<b>August/September 2017</b>	<b>Blume, C.</b> & Santhi, N. Invited lecturers at a Summer Academy of the Studienstiftung des deutschen Volkes e.V., Title of the course: "Rhythms of the Body and Mind: Circadian and Sleep-Wake-Dependent Regulation of Physiology and Cognition", <i>Krakow, Poland, August 28th-September 7th 2017.</i>
<b>April 2017</b>	<b>Blume, C.</b> (2017). A clue to consciousness? Significance of circadian rhythms in severely brain-injured patients. Talk at the 12th World Congress of the International Brain Injury Association (IBIA), <i>New Orleans, USA, March 29th-April 1st.</i>
<b>March 2017</b>	<b>Blume, C.</b> Circadian Variations in Consciousness – Insights from Healthy Sleep and Brain-Injured Patients. Invited talk at the Centre for Chronobiology at the Psychiatric University <i>Hospital Basel, Switzerland, March 21st 2017.</i>
<b>June 2016</b>	<b>Blume, C.</b> & Schabus M. (2016). Diurnal variations in consciousness – insights from rhythm research. Symposium talk at the 20th Annual Meeting of the Association for the Scientific Study of Consciousness (ASSC), <i>Buenos Aires, Argentina, June 14th-18th 2016.</i>
<b>November 2015</b>	<b>Blume C.</b> , 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. Talk at the 7th Congress of the World Sleep Federation, <i>Istanbul, Turkey, October 29th – November 3rd 2015.</i>

#### ADDITIONAL ACADEMIC ACTIVITIES

<b>since September 2017</b>	Mentor for a PhD student at the University of Salzburg in the Programme "Karriere_Mentoring III" of the Universities in Salzburg, Linz and Krems for female doctoral and post-doctoral students.
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#### RESEARCH INTERESTS

Cognitive processing across vigilance stages (healthy wakefulness and sleep, disorders of consciousness)

Circadian rhythms & cognition