

# CURRICULUM VITAE

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Geboren                22. August 1959 in Olten  
Zivilstand              verheiratet, 1 Tochter (1996)  
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## Schulen

1966 – 1972           Primarschule, Fulenbach  
1972 – 1975           Progymnasium, Kantonsschule Olten  
1975 – 1979           Mathematisch-naturwissenschaftl. Gymnasium, Olten

## Studium und Diplome

1980 – 1986           Biologiestudium mit Diplomfach Neurobiologie, Zoologisches Institut, Universität Zürich  
Jan 87 – Mai 91        Dissertation in Humanschlafforschung unter Prof. Dr. A. Borbély, Institut für Pharmakologie, Universität Zürich: *Quantitative analysis of EEG and EMG parameters: applications in the study of human sleep regulation*  
1992                    Doktorwürde, Philosophische Fakultät II, Universität Zürich  
Juni 91 – Dez 93       Post-Doktorand unter Prof. Dr. Anna Wirz-Justice, Abteilung Chronobiologie, Universitäre Psychiatrische Kliniken, Basel  
Jan 94 – Mai 96        Fellowship in Schlafmedizin unter Prof. Dr. Ch. Reynolds und Prof. D. Buysse, Universität Pittsburgh, U.S.A.  
1999                    Zertifikat im Fachgebiet der klinischen Schlafstörungen, American Board of Sleep Medicine  
2001                    Qualifikationsnachweis in Somnologie, Deutsche Gesellschaft für Schlafforschung und Schlafmedizin  
2006                    Somnologie-Zertifikat, Schweizerische Gesellschaft für Schlafforschung, Schlafmedizin und Chronobiologie  
2012                    Zertifikat für Somnologie, European Sleep Research Society,

## Wissenschaftliche Tätigkeit

Jan 84 – Dez 86        Neurophysiologie des visuellen Systems (Prof. Dr. R. Wehner), Zoologisches Institut, Universität Zürich  
Jan 87 – Mai 91        Schlafregulation des Menschen (Prof. Dr. A. Borbély), Institut für Pharmakologie, Universität Zürich  
Juni 91 – Dez 93        Schlafregulation und Lichttherapie bei der saisonalen Depression, (Prof. Dr. Anna Wirz-Justice) Abteilung Chronobiologie, Universitäre Psychiatrische Kliniken, Basel

Jan 94 – Mai 96 Fellowship in Schlafforschung und Schlafmedizin (Prof. Dr. D. Buysse), Western Psychiatric Institute and Clinic, University of Pittsburgh

### **Schlafmedizinische Ausbildung und klinische Tätigkeit**

Jan 94 – Mai 96 Sleep Evaluation Center, Western Psychiatric Institute and Clinic, Univ. Pittsburgh (Prof. Ch. Reynolds, Prof. Dan Buysse)

Juli 95 – Mai 96 Pulmonary Sleep Evaluation Center, Comprehensive Lung Center, Univ. Pittsburgh (Prof. Marc Sanders, Prof. Patric Strollo)

Juli 95 – Mai 96 Child and Adolescent Sleep Laboratory, Western Psychiatric Institute and Clinic, University of Pittsburgh (Prof. Ronald Dahl)

Juni 96 – Dez 98 Klinische Tätigkeit als Somnologe und Leiter des Schlaflabors, Klinik für Schlafmedizin, Bad Zurzach

Dez 98 – Dez 21 Klinische Tätigkeit, operative und fachliche Leitung, Zentrum für Schlafmedizin AG, Hirslanden Zürich, Zollikon

Aug 22 – Geschäftsführer und somnologische Beratungstätigkeit, Somnologie & Schlafcoaching GmbH, Zollikerberg

### **Auszeichnungen**

1991 Preis für junge Forscher, Schweiz. Gesellschaft für Biologische Psychiatrie

1994 Young investigator award, American Sleep Research Society

1993, 1994 + 1995 Travel awards, American Sleep Research Society

### **Mitgliedschaften**

Seit 1990 European Sleep Research Society (ESRS)

Seit 1992 Schweiz. Gesellschaft für Schlafforschung, Schlafmedizin und Chronobiologie (SGSSC)

Seit 1993 American Sleep Research Society (SRS)

Seit 1995 American Academy of Sleep Medicine (AASM)

Seit 1998 Deutsche Gesellschaft für Schlafforschung und Schlafmedizin (DGSM)

Seit 2000 Schweiz. Narkolepsie Gesellschaft

### **Führungs- und Lehrtätigkeiten**

Seit 2004 Präsident der Kommission für das Somnologie Zertifikat für Personen mit Studienabschluss in Naturwissenschaften oder Psychologie, Schweiz. Ges. für Schlafforschung, Schlafmedizin und Chronobiologie

2006-2019 Supervision und schlafmedizinische Ausbildung von Personen mit einem Doktorat auf dem Gebiet der Schlafforschung, Zentrum für Schlafmedizin AG, Zollikon

# Publikationen

## Papers

1. Brunner D.P., Dijk D.J., Tobler I., and Borbély A.A. Effect of partial sleep deprivation on sleep stages and EEG power spectra: evidence for non-REM and REM sleep homeostasis. *Electroenceph. Clin Neurophysiol*, 1990, 75: 492-499.
2. Dijk D.J., Brunner D.P., and Borbély A.A. Time course of EEG power density during long sleep in humans. *Am J Physiol*, 1990, 258: R650-R661.
3. Trachsel L., Dijk D.J., Brunner D.P., Klene C., and Borbély A.A. Effect of zopiclone and midazolam on sleep and EEG spectra in a phase-advanced sleep schedule. *Neuropsychopharmacol*, 1990, 3: 11-18.
4. Brunner D.P., Dijk D.J., and Borbély A.A. Quantitative analysis of phasic and tonic submental EMG activity in human sleep. *Physiol Behav*, 1990, 48: 741-748.
5. Dijk D.J., Brunner D.P., Beersma D.G.M., and Borbély A.A. EEG power density and slow wave sleep as a function of prior waking and circadian phase. *Sleep*, 1990, 13: 430-440.
6. Dijk D.J., Beersma D.G.M., Brunner D.P., Daan S., and Borbély A.A. Spectral analysis of day-sleep. In: Horne J. (ed) *Sleep'90*. Pontenagel Press, Bochum, 1990, 324-328.
7. Dijk D.J., Brunner D.P., and Borbély A.A. EEG power density during recovery sleep in the morning. *Electroenceph Clin Neurophysiol*, 1991, 78: 203-214.
8. Brunner D.P., Dijk D.J., Münch M., and Borbély A.A. Effect of zolpidem on sleep EEG spectra in healthy young men. *Psychopharmacology*, 1991, 104: 1-5.
9. Dijk D.J., Brunner D.P., Aeschbach D., Tobler I., and Borbély A.A. The effects of ethanol on human sleep EEG power spectra differ from those of Benzodiazepine receptor agonists. *Neuropsychopharmacology*, 1992, 7: 225-232.
10. Achermann P., Dijk D.J., Brunner D.P., and Borbély A.A. A model of human sleep homeostasis based on EEG slow-wave activity: quantitative comparison of data and simulations. *Brain Res Bull*, 1993, 31: 97-113.
11. Brunner D.P., Dijk D.J., and Borbély A.A. Repeated partial sleep deprivation progressively changes the EEG during sleep and wakefulness. *Sleep*, 1993, 16: 100-113.
12. Brunner D.P. and Wirz-Justice A. Chronobiological sleep disturbances and their treatments. *Therapeutische Umschau*, 1993, 16: 100-113.
13. Wirz-Justice A., Graw P., Kräuchi K., Haug H.-J., Leonhardt G., and Brunner D.P. Effect of light on unmasked circadian rhythms in winter depression. In: Wetterberg L., Ed., *Light and Biological Rhythms in Man. Wenner-Gren International Series*, 1993, 63: 385-393.
14. Aeschbach D., Dijk D.J., Trachsel L., Brunner D.P., and Borbély A.A. Dynamics of slow-wave activity and spindle frequency activity in the human sleep EEG: effect of midazolam and zopiclone. *Neuropsychopharmacol*, 1994, 11: 237-244.
15. Brunner D.P., Münch M., Biedermann K., Huch R., Huch A., and Borbély A.A. Changes in sleep and sleep EEG during pregnancy. *Sleep*, 1994, 17: 576-582.
16. Reynolds C.F.III and Brunner D.P. Sleep microarchitecture in depression: Commentary. *Biol Psychiatry*, 1995, 37: 70.
17. Brunner D.P., Kräuchi K., Dijk D.J., Leonhardt G., Haug H-J, and Wirz-Justice A. The sleep EEG in seasonal affective disorder and in control women: effects of midday light treatment and sleep deprivation. *Biol Psychiatry*, 1996, 40: 485-496.
18. Wirz-Justice A., Kräuchi K., Brunner D.P., Graw P., Haug H-J, Leonhardt G., Sarrafzadeh A., English J., and Arendt J. Circadian rhythms and sleep regulation in seasonal affective disorder. *Acta Neuropsychiatrica*, 1995, 7:41-43.
19. Cajochen C., Brunner D.P., Kräuchi K., Graw P., and Wirz-Justice A. Power density in theta/alpha frequencies of the waking EEG progressively increases during sustained wakefulness. *Sleep*, 1995, 18:890-894.
20. Brunner D.P., Vasko R.C., Detka C.S., Monahan J.P., Reynolds C.R., Kupfer D.J. Muscle artifacts in the sleep EEG: automated detection and effect on all-night EEG power spectra. *J Sleep Res*, 1996, 5:155-164.
21. Reynolds C.F., Buysse D.J., Brunner D.P., Dew, M., Hoch, C.C., Hall, M., Begley, A.E., Houck, P.R., Mazumdar, S., Perel, J. Maintenance nortriptyline effects on homeostatic control of sleep in elders with

- recurrent major depression: double-blind, placebo- and plasma-level controlled evaluation. *Biol Psychiatry*, 1997, 42(7):560-567.
22. Vasko R.C., Brunner D.P., Monahan J.P., Doman J., Boston J.R., El-Jaroudi A., Miewald J., Buysse D.J., Reynolds C.F., Kupfer D.J. Power spectral analysis of EEG in a multiple-bedroom, multiple-polygraph sleep laboratory. *Int J Med Informatics*, 1997, 66:175-184.
  23. Cajochen C., Brunner D.P., Kräuchi K., Graw P., and Wirz-Justice A. EEG and subjective sleepiness during extended wakefulness in seasonal affective disorder: Circadian and homeostatic influences. *Biol Psychiatry*, 2000, 47:610-617.
  24. Brunner D. Fragestellungen für eine schlafmedizinische Abklärung. Was kann der Somnologe leisten? *ORL Praxis*, 2006, 4:7-10.
  25. Brunner D. Schnarchen – lästig oder gefährlich? Abklärung der Atmung im Schlaf. *ORL Praxis*, 2008, 1:4-8.
  26. Burkhalter H., Brunner D.P., Wirz-Justice A., Cajochen C., Weaver T., Steiger J., Fehr T., and Venzin R. M. Self-reported sleep disturbances in renal transplant recipients. *BMC Nephrol*, 2013, 14:220. doi: 10.1186/1471-2369-14-220.
  27. Garbazza C., Bromundt V., Eckert A., Brunner D.P., Meier F., Hackethal S., and Cajochen C. Non-24-hour sleep-wake disorder revisited – a case study. *Front Neurol*, 2016, 7:17. doi: 10.3389/fneur.2016.00017.
  28. Waltisberg D., Amft O., Brunner D.P., and Tröster G. Detecting disordered breathing and limb movements using in-bed force sensors. *IEEE J Biomed Health Inform*, 2017, 21(4):930-938. doi: 10.1109/JBHI.2016.2549938.
  29. Brunner D. Die chronische Insomnie. *Der informierte Arzt*, 2020, 10(7):36-39.
  30. Brunner D. L'insomnie chronique. *La gazette médicale*, 2020, 9(4): 32-35.

## Abstracts

1. Brunner D.P., Tobler I., and Borbély A.A. Effects of partial sleep deprivation on EEG-sleep parameters and fatigue. 9th congress of the ESRS, Jerusalem, 4-9 Sept. 1988.
2. Brunner D.P., Dijk D.J., and Borbély A.A. Quantitative analysis of the submental EMG in human sleep. 10th congress of the ESRS, Strasbourg, 20-27 May 1990.
3. Brunner D.P., Dijk D.J., and Borbély A.A. Repeated partial sleep deprivation results in long lasting changes of the sleep EEG. 10th congress of the ESRS, Strasbourg, 20-27 May 1990.
4. Dijk D.J., Brunner D.P., and Borbély A.A. Spectral analysis of day sleep. 10th congress of the ESRS, Strasbourg, 20-27 May 1990.
5. Achermann P., Dijk D.J., Brunner D.P., and Borbély A.A. Model of ultradian variation of slow-wave activity: quantitative comparisons. *J Sleep Res.*, 1992, 1(suppl.1): 1.
6. Henggeler B., Michel C.M., Corsi-Cabrera M., Brunner D.P., and Lehmann D. Localizing the sources of EEG frequency bands during REM and NREM sleep. *J Sleep Res.*, (suppl.1), 1992, 1: 95.
7. Brunner D.P., Münch M., Biedermann K., Huch R., Huch A., and Borbély A.A. Pregnancy changes the sleep EEG. *J Sleep Res.*, 1992, 1 (suppl.1): 32.
8. Brunner D.P., Wirz-Justice A., Kräuchi K., Graw P., Haug H.J., and Leonhardt G. Is there an endogenous mid-afternoon dip of subjective alertness? *J Sleep Res.*, 1992, 1 (suppl.1): 33.
9. Brunner D.P., Wirz-Justice A., and Borbély A.A. Spektral-Analyse des Schlaf-EEGs: Methodik und Anwendung in der Depressionsforschung. *Fortschr Neurol Psychiat*, (Sonderheft 1), 1992, 60: 7-8.
10. Brunner D.P., Leonhardt G., Kräuchi K., Graw P., and Wirz-Justice A. Homeostatic regulation of nonREM sleep in SAD is preserved across depressive episodes and seasons. *Sleep Res*, 1993, 22: 325.
11. Brunner D.P., Kräuchi K., Leonhardt G., Graw P., and Wirz-Justice A. Sleep parameters in SAD: effects of midday light, season, and sleep deprivation. *Sleep Res*, 1993, 22: 396.
12. Kräuchi K., Wirz-Justice A., Brunner D.P., Hetsch C., Leonhardt G., Haug H.-J., and Graw P. Light treatment at midday decreases heart rate in SAD at every circadian phase and during sleep. *SLTBR Abstracts*, 1993, 5: 36.
13. Wirz-Justice A., Graw P., Kräuchi K., Leonhardt G., Brunner D.P., Haug H.-J., and Hetsch C. Endogenous circadian rhythms in SAD: light treatment improves performance without affecting alertness. *SLTBR Abstracts*, 1993, 5: 17.

14. Kräuchi K., Wirz-Justice A., Graw P., Brunner D.P., Leonhardt G., Hetsch C., Haug H.-J. Midday light therapy in seasonal affective disorder (SAD) decreases heart rate at all circadian phases and during sleep. *Photodermatol Photoimmunol Photomed*, 1993, 10: 180.
15. Graw P., Wirz-Justice A., Kräuchi K., Leonhardt G., Brunner D.P., Hetsch C., Haug H.-J., Röösli H., and Fleischhauer J. Bright light therapy improves performance. *Photodermatol Photoimmunol Photomed*, 1993, 10: 176.
16. Brunner D.P., Kräuchi K., Leonhardt G., Graw P., Haug H.-J., and Wirz-Justice A. Sleep parameters of middle-aged women in winter and in summer. *J Sleep Res*, 1994, 3 (suppl.1): 34.
17. Wirz-Justice A., Kräuchi K., Graw P., Arendt J., English J., Brunner D.P., Haug H.-J., and Leonhardt G. Quantifying changes in the output of the pacemaker after exposure to bright light in humans. *J Sleep Res*, 1994, 3 (suppl.1): 279.
18. Kräuchi K., Brunner D.P., Cajochen C., and Wirz-Justice A. Time course of rectal temperature and heart rate during baseline and recovery sleep. *J Sleep Res*, 1994, 3 (suppl.1): 132.
19. Brunner D.P., Kräuchi K., Leonhardt G., Graw P., and Wirz-Justice A. Sleep stage parameters in middle-aged women: effects of season, sleep deprivation, and midday light. *Sleep Res*, 1994, 23: 481.
20. Kräuchi K., Keller U., Leonhardt G., Haug H.-J., Brunner D.P., Hetsch C., Van der Velde P., and Wirz-Justice A. Depressed SAD patients exhibit impaired insulin-glucose homeostasis and altered palatability of sucrose in winter. *SLTBR Abstracts*, 1994, 6: 33
21. Wirz-Justice A., Kräuchi K., Graw P., Arendt J., English J., Hetsch C., Haug H.-J., Leonhardt G., and Brunner D.P.. Circadian rhythms of core body temperature and salivary melatonin in winter SAD before and after midday light. *SLTBR Abstracts*, 1994, 6: 12.
22. Wirz-Justice A., Kräuchi K., Graw P., Arendt J., English J., Brunner D.P., Haug H.-J. and Leonhardt G. Testing circadian rhythm hypotheses of winter depression in the constant routine protocol. *Neuropsychopharmacol (Suppl. 3 / part 1)*, 1994, 10: 868S.
23. Kräuchi K., Wirz-Justice A., Graw P., Leonhardt G., Haug H.-J., and Brunner D.P. Midday light treatment improves performance and reduces heart rate in seasonal affective disorder. *Neuropsychopharmacol (Suppl. 3 / part 2)*, 1994, 10: 172S.
24. Haug H.-J., Wirz-Justice A., Kräuchi K., Graw P., Hetsch C., Leonhardt G., and Brunner D.P. Circadian rhythms of mood under a constant routine. *Neuropsychopharmacol (Suppl. 3 / part 2)*, 1994, 10: 235S.
25. Brunner D.P., Detka C.S., Monahan J.P., Reynolds C.F., and Kupfer D.J. Automated elimination of movement artifacts in quantitative analyses of the sleep EEG. *Sleep Res*, 1995, 24: 465.
26. Brunner D.P., and Schwander J.C. Positional training in 'primary snorers' reduces snoring and respiratory arousals during sleep. *Sleep Res*, 1997, 26: 338.
27. Brunner D.P., and Schwander J.C. Narcolepsy presenting as chronic insomnia. *Sleep*, 1998, 21 (suppl.): 133.
28. Brunner D.P. Tonic EMG activity during the three major vigilance states. *Clin Neurophysiol (Suppl. 1)*, 1999, 110: S62.
29. Brunner D.P., González H.L., Barandun J., Klingler K., and Scherer T. Catathrenia: a new parasomnia with groaning sounds during restrained expiration is related to central sleep apnea and REM-sleep episodes. *Swiss Med Wkly*, 2003, 103 (suppl.135): S8.
29. Brunner D.P., González H.L., Barandun J., Klingler K., and Scherer T. Sleep-related laryngospasm presents as infrequent episodes of abrupt awakening with intense sensation of suffocation, jumping out of bed and temporary stridor. *Swiss Med Wkly*, 2004, 134 (suppl.139): S10.
30. Brunner D.P. and González H.L. Catathrenia: a rare parasomnia with prolonged groaning during clusters of central or mixed apneas. *J Sleep Res*, 2004, 13 (suppl.1): 107.
31. Garbazza C., Bromundt V., Lang U.E., Brunner D., and Cajochen C. Light therapy in a sighted man with a non-24-hour sleep-wake syndrome: a case study. *J Sleep Res*, 2014, 23 (suppl.1): 1-331.