

Curriculum Vitae

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Education, certificates

- 1971: HBS-b diploma (school leaving certificate from the Dr. F.H. DeBruyne Lyceum, Utrecht, The Netherlands).
- 1976: Bachelor degree in Psychology at the University of Amsterdam.
- 1978: Training in histology at the Laboratory for Histology and Cellbiology (Prof.Dr. J. James) at the University of Amsterdam, The Netherlands.
- 1982: Practical training at the Laboratory of Functional Exploration of the Nervous System (Prof.Dr. J. Scherrer) at the Hôpital de la Salpêtrière, Paris, France.
- 1984: Master degree in Psychophysiology at the University of Amsterdam on the thesis "Rapid eye movements patterns during paradoxical sleep in infants in the first year of life".
- 1996: Ph.D. degree on the thesis "Ultradian patterns of synchronisation and desynchronisation in the human sleep EEG. An ontogenetic perspective.", at the University of Amsterdam.
- 1999: Postgraduate certificate occupational training Health Psychologist.

Occupations, experience

- 1982: Research assistant in the sleep research center of the Laboratory of Psychophysiology, University of Amsterdam, The Netherlands.
- 1983-1985: Researcher on invitation at Unité 3 of the "Institut National pour Santé et Recherche Médicale (INSERM) at the Hôpital de la Salpêtrière, Paris, France, with grants from the "Fondation de France" and the "Association Claude Bernard".
- 1985-1987: Researcher on invitation in the sleep laboratory at the Max-Planck-Institut für Psychiatrie, München, Germany, with a grant from the Max Planck Gesellschaft.
- 1987-1990: Researcher in the sleep section the Psychonomics Dept. of the Psychologisch Laboratorium der Universiteit van Amsterdam, The Netherlands.
- 1990-1997: Researcher at the Labor für Klinische Psychophysiology at the Free University, Berlin, Germany.
- 1992-1997: Head of the connected Diagnostic Sleep Laboratory.
- 1997-2005: Polysomnographic specialist at Medcare Automation B.V., Amsterdam, The Netherlands.
- 2006-2012: Managing Director at the European Representative of Embla Systems, Amsterdam, The Netherlands
- 2013-present: Head of Electrophysiology at the Department of Sleep Medicine & Chronobiology at St. Hedwig-Krankenhaus, Berlin, Germany

Publications Dr. Frederik W. Bes

1. Bes F, Fagioli I, Franc B, Putet G, Ricour C, Salzarulo P. Rhythms of O₂ consumption during the night in continuously fed children. *J Interdiscipl Cycle Res* 1986; 17:128.
2. Bes F, Schulz H, Salzarulo P. The temporal interaction of Slow-Wave Sleep and Paradoxical Sleep in infants. *Sleep Res* 1987; 16:168.
3. Bes F, Baroncini P, Dugovic C, Fagioli I, Schulz H, Franc B, Salzarulo P. Time course of night sleep EEG in the first year of life: a description based on automatic analysis. *Electroenceph Clin Neurophysiol* 1988; 69:501-507.
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6. Fagioli I, Peirano P, Bes F, Salzarulo P. Sleep in early malnutrition. In: *Sleep '88, Proceedings of the Ninth European Congress on Sleep Research*, Jerusalem 1988. Edited by J.A. Horne, Gustav Fischer Verlag, Stuttgart, New York, 1989, pp:58-62.
7. Fagioli I, Bes F, Ricour C, Salzarulo P. Sleep patterns in children under continuous and cyclic parenteral nutrition. *Med Sci Res* 1990; 18:59-60.
8. Ktonas P, Bes F, Rigoard M, Wong C, Mallard, Salzarulo P. Developmental changes in the clustering of sleep rapid eye movement activity during the first year of life. *Electroenceph Clin Neurophysiol* 1990; 75:136-140.
9. Bes F, Schulz H, Navelet Y, Salzarulo P. The distribution of slow-wave sleep across the night: a comparison for infants, children and adults. *Sleep* 1991; 14:5-12.
10. Salzarulo P, Fagioli I, Peirano P, Bes F, Schulz H. Levels of EEG background activity and sleep states in the first year of life. In: *Phasic events and dynamic organization of sleep*, edited by G.M. Terzano, A.C. Declerck and P. Halasz, Raven Press Ltd, New York, 1991, pp:53-63.
11. Bes F, Schulz H, Wilde-Frenz J. Multiple EMG recordings during sleep. *Sleep Research* 1991; 20A:249.
12. Fagioli I, Bes F, Franc B, Putet G, Ricour C, Salzarulo P. Oxygen consumption during sleep in children under continuous and cyclic nutrition. *Physiol. Behav.* 1991, 49:1159-1162.
13. Bes F, Wilde-Frenz J, Schulz H. Multiple EMG recordings during sleep. In: *Sleep-Wake Research in the Netherlands, Volume 2*, edited by A.M.L. Coenen, The Dutch Society for Sleep-Wake Research, Leiden, 1991, pp. 25-26.
14. Bes F, Wilde-Frenz J, Schulz H. Application of the Tiredness Symptoms Scale during sleep deprivation. In: *Sleep-Wake Research in the Netherlands, Volume 3*, edited by A.M.L. Coenen, The Dutch Society for Sleep-Wake Research, Leiden, 1992, pp. 19-20.
15. Bes F, Tzichinsky O, Escola H, Lavie P, Schulz H. Sleep propensity measured by EEG synchronization in ultrashort (7/13) sleep-wake cycles across 24 hours. In: *Sleep-Wake Research in the Netherlands, Volume 3*, edited by A.M.L. Coenen, The Dutch Society for Sleep-Wake Research, Leiden, 1992, pp. 21-23.

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17. Bes F, Tzischinsky O, Escola H, Lavie P, Schulz H. Sleep propensity measured by EEG synchronization in ultrashort (7/13) sleep-wake cycles across 24 hours. *J Sleep Res* 1992; 1, supplement 1:22.
18. Wilde-Frenz J, Bes F, Schulz H. The application of the Tiredness Symptoms Scale (TSS) during sleep deprivation. *J Sleep Res* 1992; 1, supplement 1:255.
19. Litscher G, Pfuertscheller G, Bes F, Poiseau E. Respiration and heart rate variation in normal infants during quiet sleep in the first year of life. *Klin Paediatr* 1993; 205:170-175.
20. Peirano P, Fagioli I, Bes F, Salzarulo P. The role of slow-wave sleep on the duration of quiet sleep in infants. *J Sleep Res* 1993; 2:130-133.
21. Bes F, Jobert M, Müller C, Schulz H. The circadian distribution of sleep propensity. *J Sleep Res* 1994; 3, supplement 1:22.
22. Hofman W, Bes F. A model of disrupted sleep in chronic insomnia. *J Sleep Res* 1994; 3, supplement 1:107.
23. Salzarulo P, Bes F, Fagioli I. Changes in sleep states organization during the first year of life. *J Sleep Res* 1994; 3, supplement 1:227.
24. Jobert M, Schulz H, Jähnig P, Tismer C, Bes F, Escola H. A computerised method for detecting episodes of wakefulness during sleep based on the Alpha Slow-Wave Index (ASI). *Sleep* 1994; 17:37-46.
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32. Bes F. Ultradian patterns of synchronisation and desynchronisation in the human sleep EEG. An ontogenetic perspective. Thesis University of Amsterdam, ISBN 90-5470-043-2, Amsterdam, The Netherlands, 1996.
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36. Kraemer S, Bes F, Baur H, Bauer M, Hellweg R. Sleep in healthy individuals on supraphysiological doses of L-thyroxine. *J Sleep Res* 1996; 5, supplement 1:111.
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71. Wittenbrink N, Ananthasubramanian B, Münch M, Koller B, Maier B, Weschke C, Bes F, de Zeeuw J, Nowozin C, Wahnschaffe A, Wisniewski S, Zaleska M, Bartok O, Ashwal-Fluss R, Lammert H, Herzel H, Hummel M, Kadener S, Kunz D, Kramer A. BodyTime: High-accuracy determination of internal circadian time from a single blood sample. *J Clinical Investigation* 2018; 128(9):3826-39.
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