

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format on preceding page for each person. **DO NOT EXCEED FOUR PAGES.**

NAME		POSITION TITLE	
Fred W. Turek		Professor	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Michigan State U., E. Lansing, Mich.	BS	1969	Biology
Stanford University, Palo Alto, CA	PhD	1973	Biological Rhythms
U. of Texas, Austin, TX	Postdoc Fel	1973-75	Biological Rhythms

RESEARCH AND PROFESSIONAL EXPERIENCE

1975-80: Assistant Professor, Dept of Biological Sciences, Northwestern Univ
1980-81: Associate Professor, Dept of Biological Sciences, Northwestern Univ
1/1/79-3/31/79: Visiting Assistant Professor, Dept of Anatomy, UCLA Sch Med
1/1/81-3/31/81: Visiting Scientist, Dept of Zoology, Univ of Bristol.
1981-84: Associate Professor, Dept of Neurobiology & Physiology, Northwestern Univ
1984-Present: Professor, Dept of Neurobiology & Physiology, Northwestern Univ
1986-1987 Visiting Professor, Université Libre de Bruxelles, Institute of Interdisciplinary Research and Laboratory of Neuropathology and Neuropeptides Research, Brussels, Belgium
1987-1998: Chairman, Dept of Neurobiology & Physiology, Northwestern Univ
1995-2000 Editor-in-Chief, Journal of Biological Rhythms
1990-Present Member, Center for Reproductive Sciences, Northwestern University, Evanston, IL
1992-Present Member, Lurie Cancer Center, Northwestern University
1991-1992 Visiting Professor, Department of Psychiatry and Center for Experiments on Rhythms Biological (CERB), Université Libre de Bruxelles, Brussels, Belgium
1991-Present Professor, Department of Neurology, Northwestern University Medical School, Chicago, IL
1993-Present Member, Buhler Center on Aging, Northwestern University Medical School, Chicago, IL
1995-Present Director, Center for Sleep and Circadian Biology, Northwestern University, Evanston, IL
1997-Present Affiliate, Transportation Center, Northwestern University, Evanston, IL
1998-1999 Visiting Professor, Department of Psychiatry, Université Libre de Bruxelles, Brussels, Belgium
1998-Present Professor, Department of Psychiatry & Human Behavior, Northwestern University Medical School, Chicago, IL

SELECTED HONORS

1978-83: Public Health Service NIH Research Career Development Award
1981: Elected a fellow of the American Association for the Advancement of Science
1986 and 1991: NIH Senior International Fogarty Fellowship
1987: Curt Richter Award from International Society of Psychoneuroendocrinology
1987-92: First President, Society for Research on Biological Rhythms
1991-92 John Guggenheim Memorial Fellowship
1995- Endowed Chair: Charles E. and Emma H. Morrison Professor of Biology
1998-1999 Distinguished Investigator Award from the National Alliance for Research on Schizophrenia and Depression (NARSAD)

SELECTED PUBLICATIONS (from total of 251)

Van Cauter E, Sturis J, Byrne MM, Blackman JD, Leproult R, Ofek G, L'Hermite-Balériaux M, Refetoff S, Turek FW and Van Reeth O. Demonstration of rapid light-induced advances and delays of the human circadian clock using hormonal phase markers. Am. J. Physiol. 266:E953-963 (1994).
Van Reeth O, Sturis J, Byrne MM, Blackman JD, L'Hermite-Balériaux M, Leproult R, Oliner C, Refetoff S, Turek FW and Van Cauter E. Nocturnal exercise phase delays the circadian rhythms of melatonin and thyrotropin secretion in normal men. Am. J. Physiol. 266: E964-E974 (1994).

- Vitaterna MH, King DP, Chang A-M, Kornhauser JM, Lowrey PL, McDonald JD, Dove WF, Pinto LH, Turek FW and Takahashi JS. Mutagenesis and mapping of a mouse gene, *Clock*, essential for circadian behavior. Science 264:719-725 (1994).
- Penev PD, Turek FW. and Zee PC. A serotonin neurotoxin attenuates the phase-shifting effects of triazolam on the circadian clock in hamsters. Brain Res. 669:207-216 (1995).
- Toppila J, Stenberg D, Alanko L, Asikaninen M, Urban JH, Turek FW and Porkka-Heiskanen T. REM sleep deprivation induces galanin gene expression in the rat brain. Neurosci. Let. 183:171-174 (1995).
- Porkka-Heiskanen T, Smith SE, Taira T, Urban JH, Levine JE, Turek FW and Stenberg D. Noradrenergic activity in rat brain during rapid eye movement sleep deprivation and rebound sleep. Am. J. Physiol. 268:R1456-R1463 (1995).
- Turek FW, Pinto LH, Vitaterna MH, Penev PD, Zee PC and Takahashi JS. Pharmacological and genetic approaches for the study of circadian rhythms in mammals. Frontiers in Neuroendocrinol. 16:191-223 (1995).
- Penev PD, Zee PC, Wallen EP and Turek FW. Aging alters the phase-resetting properties of a serotonin agonist on hamster circadian rhythmicity. Am. J. Physiol. 268:R293-R298 (1995).
- Toppila J, Asikainen M, Alanko L, Turek FW, Stenberg D, Porkka-Heiskanen T. The effect of REM sleep deprivation on somatostatin and growth hormone-releasing hormone gene expression in the rat hypothalamus. J. Sleep Res. 5:115-122 (1996).
- Colecchia EF, Penev PD and Turek FW. Phase-shifting effects of a serotonin agonist in tau mutant hamsters. Brain Res. 730:227-231 (1996).
- King DP, Vitaterna MH, Chang A-M, Dove WF, Pinto LH, Turek FW, Takahashi JS. The mouse Clock mutation behaves as an antimorph and maps within the W19H deletion, distal of Kit. Genetics 146:1049-1060 (1997).
- Penev PD, Zee PC, and Turek FW. Serotonin in the spotlight. Nature. 385:123 (1997).
- King DP, Zhao Y, Sangoram AM, Wilsbacher LD, Tanaka M, Antoch MP, Steeves TDL, Vitaterna MH, Kornhauser JM, Lowrey PL, Turek FW & Takahashi FW. Positional cloning of the mouse circadian Clock gene. Cell 89:641-653 (1997).
- Valentinuzzi VS, Scarbrough K, Takahashi JS and Turek FW. Effects of aging on the circadian rhythm of wheel-running activity in C57BL/6 mice. Am. J. Physiol. 273:R1957-R1964 (1997).
- Challet E, Solberg LC and Turek FW. Entrainment in calorie-restricted mice: Conflicting *Zeitgebers* and free-running conditions. Am. J. Physiol. 274:R1751-R1761 (1998).
- Challet E, Bernard DJ and Turek FW. Lesions of glucose-responsive neurons impair synchronizing effects of calorie restriction in mice. Brain Res. 801:244-250 (1998).
- Valentinuzzi VS, Kolker DE, Vitaterna MH, Shimomura K, Whiteley A, Low-Zeddies S, Turek FW, Ferrari EAM, Paylor R and Takahashi JS. Automated measurement of mouse freezing behavior and its use for quantitative trait locus analysis of contextual fear conditioning in (BALB/cJ X C57BL/6J)F₂ mice. Learn Memory 5:391-403 (1998).
- Challet E, Van Reeth O and Turek FW. Altered circadian responses to light in streptozotocin-induced diabetic mice. Am. J. Physiol. 277:E232-E237 (1999).
- Kolker DE and Turek FW. The search for circadian clock and sleep genes. J. of Psychopharmacology 13(4) Supplement 1: S5-S9 (1999).
- Dugovic C Maccari S, Weibel L, Turek FW and Van Reeth O. High corticosterone levels in prenatally stressed rats predict persistent paradoxical sleep alterations. J. Neurosci. 19:8656-8664 (1999).
- Valentinuzzi VS, Buxton OM, Chang A-M, Scarbrough K, Ferrari EAM, Takahashi JS and Turek FW. Locomotor response to an openfield during C57BL/6J active and inactive phases: differences dependent on conditions of illumination. Physiol. Behav. Physiol. Behav. 69(3):269-275 (2000).
- Dugovic C, Solberg LC, Redei E, Van Reeth O and Turek FW. Sleep in the Wistar-Kyoto rat, a putative genetic animal model for depression. NeuroReport 2(3):627-631 (2000).
- Pinto L, Vitaterna MH and Turek FW. Genetic control of circadian rhythms. In: Principles and Practice of Sleep Medicine, 3rd Edition (MH Kryger, T Roth and WC Dement, eds.). WB Saunders, New York, pp 346-352 (2000).
- Challet E, Takahashi JS and Turek FW. Nonphotic phase-shifting in Clock mutant mice. Brain Res. 859:398-403 (2000).
- Naylor E, Bergmann BM., Krauski K, Zee PC., Takahashi JS., Vitaterna MH, Turek FW.. The circadian Clock mutation alters sleep homeostasis in the mouse. J. Neuroscience 20(21):8138-8143 (2000).
- Weibel L, Turek FW, Mocaer E and Van Reeth O. Chronic treatment with a melatonin agonist in old hamsters facilitates resynchronization of the circadian clock after abrupt shifts in the light-dark cycle. Brain Res. 880:207-211, (2000).
- Czeisler C, Cajochen C and Turek FW. Melatonin in the regulation of sleep and circadian rhythms. In: Principles and Practices of Sleep Medicine 3rd Edition (MH Kryger, T Roth and WC Dement, eds.). WB Saunders, New York pp 400-406 (2000).
- Van Cauter E and Turek FW. Roles of sleep-wake and dark-light cycles in the control of endocrine, metabolic, cardiovascular and cognitive function. In: Handbook of Physiology, Section 7: The Endocrine System, Volume IV: Coping With the Environment: Neural and Endocrine Mechanisms. BS McEwen, ed. Oxford University Press, New York pp 313-330 (2000).

- Van Cauter E, Copinschi G and Turek FW. Endocrine and other biologic rhythms. In: Endocrinology, Fourth Edition. Edited by DeGroot LJ and Jameson JL. Vol 1. WB Saunders, New York. Pp. 235-256(2001).
- Kolker DE and Turek FW. Circadian rhythms and sleep in aging rodents. In: Functional Neurobiology of Aging. PR Hof and CV Mobbs, eds. San Diego: Academic Press, pp 869-882 (2001).
- Turek FW. From the simple to the complex and back again: Dissecting the mammalian circadian clock system and implications for sleep research. In: Zeitgebers, Entrainment and Masking of the Circadian System. Honma K and Honma S Eds. Hokkaido University Press, Sapporo, pp 227-238 (2001).
- Valentinuzzi VS, Kolker DE, Vitaterna MH, Ferrari EAM, Takahashi JS, and Turek FW (2001). Effect of circadian phase on context and tone fear conditioning in C57BL/6J mice. Animal Learning and Behavior 29 (2), 133-142, (2001).
- Meerlo P, and Turek FW. Effects of social stimuli on sleep in mice: non-rapid-eye-movement (NREM) sleep is promoted by aggressive interaction by not by sexual interaction. Brain Res. 907 (2001) 84-92.
- Meerlo P, Easton A, Bergmann BM, and Turek FW. Restraint increases prolactin and REM sleep in C57BL/6J mice but not in BALB/cJ mice. Am. J. Physiol Regulatory Integrative Comp Physiol, 281:R846-R854, (2001).
- Solberg LC, Losee-Olson S, Turek FW, and Redei E. Altered hormone levels and circadian rhythm of activity in the WKY rat, a putative animal model of depression. Am J Physiol Regulatory Integrative Comp Physiol, 281: R786-R794, (2001).
- Turek FW, Scarbrough K, Penev P, Labyak S, Valentinuzzi VS and Van Reeth O. Aging of the Mammalian Circadian System. In: Handbook of Behavioral Neurobiology, Vol. 12: Circadian Clocks, Chapter 10, (Takahashi JS, Turek FW and Moore RY, eds.). Kluwer Academic/Plenum Publishers, New York pp 292-317 (2001).
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