

# Armstrong, S.M.

## CURRICULUM VITAE

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## **BIOGRAPHIC SUMMARY**

Prof Stuart Armstrong graduated from the University of London with a BSc in psychology and zoology, and from La Trobe University with a PhD in psychology (Behavioural Neuroscience). He was Reader and Associate Professor in the Dept of Psychology at La Trobe and also worked in research institutes in Germany and the USA. His research work focused on the neuroscience of the sleep-wake cycle with particular emphasis on the role of the pineal hormone melatonin and bright light on the timing of the biological clock and their use in treating sleep and mood disorders. He published over 100 research articles, including in the prestigious journal Science, and was co-author of the first international patent for using melatonin for alleviating jet-lag and other circadian rhythm disorders. He became actively involved in treating the insomnias in the mid-1980's, establishing insomnia clinics first at the Melbourne Clinic in Richmond, followed by the Austin Hospital in Heidelberg then Epworth Medical Centre, Richmond and now East Melbourne. His clinical health work specialises in: (a) Psychophysiological Insomnia (learned/stress induced), (b) Idiopathic Insomnia (childhood onset), (c) Circadian Insomnias (Advanced and delayed sleep phase syndromes, jet lag, sleep in the blind, non-24hour sleep-wake disorder, irregular sleep-wake pattern, some shift work schedules) (d) nightmares and anxiety dreams, (e) withdrawal from Sleep Medication, (f) Seasonal Affective Disorder (winter depression). He took early retirement from La Trobe in 1995 to work as chief consultant (external) to the international pharmaceutical company Servier International [France] for chronobiotic efficacy of S20098 (now marketed as Valdoxan), and (Eli Lilly [USA] for chronobiotic efficacy of LY156735. He became Professorial Fellow (honorary) then Adjunct Professor at the Brain Sciences Institute at Swinburne University and continued with his clinical health work at the Epworth Sleep Centre and Heidelberg Repatriation hospital where currently he is Director of the Sleep Disorders Clinic in the Veterans Psychiatry Unit.

## DEMOGRAPHICS AND ACADEMIC PROFILE

- A. NAME:** Stuart Maxwell ARMSTRONG
- B. ADDRESS:**
- a) University:** Non currently
- a) Clinic 1:** Insomnia Clinic, (until Dec 2013).  
Epworth Sleep Centre, Level 1, 23 Clarendon St., East Melbourne, Victoria 3002, Australia  
Ph: 61 3 9417 513; Fax: 61 3 94175114  
[ep.sleep@bigpond.net.au](mailto:ep.sleep@bigpond.net.au)  
[www.epworthsleepcentre.com.au/](http://www.epworthsleepcentre.com.au/)
- b) Clinic 2:** Director of VPU Sleep Clinic,(until Dec 2014).  
Veterans Psychiatry Unit,/Post Trauma Recovery Service  
ARMC, Repatriation Campus  
West Heidelberg, Vic 3081, Australia  
[Stuart.ARMSTRONG@austin.org.au](mailto:Stuart.ARMSTRONG@austin.org.au)  
Ph: 61-3- 9496 2537
- Private: [s.m.armstrong9@gmail.com](mailto:s.m.armstrong9@gmail.com)  
61 0411697469
- e) Currently moved to Brisbane/ Cairns.  
PO Box 207, Nundah, Q'land 4012
- C. DATE AND PLACE OF BIRTH:** 29 August, 1945, South Wales, U.K.
- D. CITIZENSHIP:** Australian
- E. FAMILY DETAILS:** Marital Status: Separated
- Children: Two
- F. PRESENT RESIDENCE:** Australia
- G. ACADEMIC QUALIFICATIONS:**
- 1970 B.Sc. General, external degree in Zoology and Psychology, University of London
- 1973 M.Sc. Preliminary in Psychology (First Class Honours), La Trobe University
- 1979 Ph.D. in Psychology, La Trobe University
- Australian Psychological Society (APS)- Member
- Psychologists Registration Board- Victoria (since 1990 )
- APS College of Health Psychology (2011)
- ASA Founding member; Received the President's Award, 2013
- H. POSITIONS HELD:**
- 1974-1976: Part-time Tutor, Department of Psychology, La Trobe University
- 1977-1979: Senior Tutor/Demonstrator, Department of Psychology, La Trobe University
- 1980-1981: Lecturer (annual appointment), Department of Psychology, La Trobe University

- 1981-1984: Lecturer (Tenured), Department of Psychology, La Trobe University
- 1984-1995: (Jun-Jan) Visiting Researcher, Institute of Neuroscience, University of Oregon, Eugene, Oregon, U.S.A.
- 1985-1989: Senior Lecturer, Department of Psychology, La Trobe University
- 1988-1989: (Aug - Nov) Visiting Senior Scientist, Max-Planck-Institut `für Verhaltensphysiologie, Andechs D8138, FRG
- 1988-1989: (Dec-Mar) Visiting Fellow, Developmental Neurobiology, Research School of Biological Sciences, Australian National University, Canberra, ACT
- 1989-1995: Reader, Department of Psychology, La Trobe University
- 1992-1993: (July-Feb) Senior Research Fellow, Key Centre For Women's Health, Department of Community Medicine, University of Melbourne.
- 1992-1995: Associate Professor (Readership retained) La Trobe University.
- 1993-2001 Senior Associate, Sleep Disorders Service, Department of Respiratory Medicine, Heidelberg Repatriation Hospital, Vic
- 1993-2000 Head of Insomnia Clinics, Sleep Disorders Service, Austin-Repatriation Medical Centre, Austin Campus, Heidelberg, Vic
- 1995-1996 Early retirement from La Trobe University.
- 2002-2005 Professorial Fellow, Brain Sciences Institute, Swinburne University
- 2005-2009- Reappointed Adjunct Professor, Brain Sciences Institute, Swinburne University
- 2005- Senior Specialist in Sleep Psychology & Director Sleep Disorders Clinic, Veteran Psychiatry, Heidelberg Repatriation Hospital, West Heidelberg, Vic
- 2006-2009 Honorary Associate, Dept Psychology, Faculty of Medicine, Nursing & Health Sciences, Monash University
- 2006- Board member of Bronowski Institute of Behavioural Neuroscience, Coliban Medical Centre, Kyneton Vic.

## PUBLICATIONS

### **A. JOURNALS & BOOK CHAPTERS**

1. Armstrong, S., Burnstock, G., Evans, B. and Singer, G. 'The effects of intrahypothalamic injections of guanethidine on catecholamine fluorescence, food intake and temperature regulation in the rat'. Pharmacology, Biochemistry and Behavior 1:307-312, 1973.
2. Singer, G. and Armstrong, S. 'Cholinergic and beta-adrenergic compounds in the control of drinking behavior in the rat'. Journal of Comparative and Physiological Psychology 85:453-462, 1973.
3. Armstrong, S. and Singer, G. 'Effects of intrahypothalamic administration of norepinephrine on the feeding response of the rat under conditions of light and darkness'. Pharmacology, Biochemistry and Behavior 2: 811-815, 1974.
4. Evans, B., Armstrong, S., Singer, G., Cook, R.D. and Burnstock, G. 'Intracranial injection of drugs: comparison of diffusion of 6-OHDA and guanethidine'. Pharmacology, Biochemistry and Behavior 3: 205-217, 1975.
5. Evans, B., Singer, G., Armstrong, S., Saunders, P. & Burnstock, G. 'Effects of chronic intracranial injection of low and high concentrations of guanethidine in the rat'. Pharmacology, Biochemistry and Behavior 3: 219-228, 1975.
6. Montgomery, R.B. and Armstrong, S. 'Cafeteria behavior in the rat after hypothalamic cholinergic and adrenergic stimulation'. Pharmacology, Biochemistry and Behavior 3: 709-711, 1975.
7. Singer, G., Armstrong, S. and Wayner, M. 'Effects of norepinephrine applied to the lateral hypothalamus on schedule-induced polydipsia'. Pharmacology, Biochemistry and Behavior 3: 869-872, 1975.
8. Singer, G., Armstrong, S., Evans, B. and Burnstock, G. Comparison of the effects of intracranial injections of 6-OHDA and guanethidine on consummatory behavior and mono-amine depletion. Pharmacology, Biochemistry and Behavior 3(1): 91-106, 1975.
9. Singer, G. and Armstrong, S. 'Effects of intracranial injection of 6-OHDA on food and water intakes, body temperature and bodyweight regulation'. Pharmacology, Biochemistry and Behavior 5: 309-317, 1976.
10. McQueen, A., Armstrong, S., Singer, G. and Myers, R. 'Noradrenergic feeding system in the monkey hypothalamus is altered by localized perfusion of glucose, insulin, 2-DG and eating'. Pharmacology, Biochemistry and Behavior 5: 491-494, 1976.
11. Armstrong, S., Clarke, J. and Coleman, G. 'Light-dark variation in laboratory rat stomach and small intestine content'. Physiology and Behavior 21: 785-788, 1978.
12. Armstrong, S. and Coleman, G. 'A strain-gauge device for measuring feeding or drinking in laboratory rats'. Physiology and Behavior 23: 1153-1156, 1979.
13. Armstrong, S. A chronometric approach to the study of feeding behavior. Neuroscience and Biobehavioral Reviews, 4: 27-53, 1980.
14. Greenwood, K., S. Armstrong and G. Coleman. Persistence of rat nocturnal feeding and drinking during diurnal presentation of palatable diet. Physiology and Behavior, 24: 1119-1123, 1980.
15. Armstrong, S., G. Coleman and G. Singer. Food and water deprivation: Changes in rat feeding, drinking, activity and body weight. Neuroscience and Biobehavioral Reviews, 4: 337-402, 1980.
16. Smith, D., T.P.S., Oei, K.T. Ng and S. Armstrong. Rat self-administration of ethanol: enhancement by darkness and exogenous melatonin. Physiology and Behavior, 25: 449-455, 1980.
17. O'Reilly, H., G. Coleman and S. Armstrong. Endogenous corticosterone alterations and appetitive learning in the rat. Physiology and Behavior, 27: 515-523, 1981.
18. Clarke, J., G. Coleman and S. Armstrong. Effects of restricted food and water regimes on the estrous cycle of the rat. International Journal of Chronobiology, 7, 305-313: 1981.

19. Greenwood, K., S. Armstrong and G. Coleman. Failure of periodic presentation of palatable diet to entrain feeding, drinking and activity rhythms under constant conditions. Physiology and Behavior, 27: 1057-1066, 1981.
20. Armstrong, S., G. Singer and C. Shahbaz. Inclusion of meal-reversal in a behaviour modification program as an aid to body weight loss in the obese: A preliminary study, Appetite, 2: 1-5, 1981.
21. Coleman, G., S. Harper, J.D. Clarke and S. Armstrong. Evidence for a separate meal-associated oscillator in the rat. Physiology & Behavior, 29: 107-115, 1982.
22. Armstrong, S. Stimulation of periodic onset of nocturnal feeding. What the gut tells the brain or what the brain tells the gut? The Behavioral and Brain Sciences, 4: 575, 1981.
23. Radford, S., K.T. Ng and G. Coleman. Time of day influences on learning in day-old-chicks: A preliminary study. Physiology and Behavior, 27: 1067-1072, 1981.
24. Armstrong, S., K.T. Ng and G. Coleman. Influence of the pineal gland on brain-behavior relationships. In: R.J.Reiter (Ed.) The Pineal Gland, Vol. III, Extra reproductive effects. Boca Raton, Florida: CRC Press, 1982.
25. Findlay, E., K.T. Ng., R.L. Reid and S. Armstrong. The effect of iron deficiency during development on passive avoidance learning in the rat. Physiology and Behavior, 27, 1089-1096, 1981.
26. Findlay, E., K.T. Ng., R.L. Reid and S. Armstrong. Development changes in body iron status following prolonged iron depletion in the rat. Physiology and Behavior, 27, 1097-1102, 1981.
27. Armstrong, S., D. Smith, K.T. Ng and T. Oei. Influence of darkness and exogenous melatonin on rat self-administration of ethanol. In: C.D.Matthews and R.F. Seamark, (Eds.) Pineal Function. Amsterdam: Elsevier-North Holland Biomedical Press BV, 1981.
28. Redman, J.R., S. Armstrong and K.T. Ng. Free-running activity rhythms in the rat: entrainment by melatonin. Science, 219, 1089-1091, 1983.
29. Armstrong, S. and D. Moglia. Influence of 2-DG on feeding in the rat at different times of the light-dark cycle. Appetite, 4, 269-280, 1983.
30. Armstrong, S. The body clock in shiftwork and jet lag. In: Wallace, M. (Ed.) Shiftwork and Quality of Life. Proceedings of Shiftwork Symposium, La Trobe University, 1983.
31. O'Reilly, H.M., S.M. Armstrong and G.J. Coleman. Response to variations in lighting schedules, on the circadian activity rhythms in Sminthopsis macroura froggatti (Dasyuridae Marsupialia), Australian Mammology, 7, 89-99, 1984.
32. Fibiger, W., G. Singer, A.J. Miller, S. Armstrong and M. Datar. Cortisol and catecholamine changes as functions of time-of-day and self-reported mood. Neuroscience and Biobehavioral Reviews, 8, 523-530, 1984.
33. Russell, J.W., G. Singer, R.W. Russell and S.M. Armstrong. Effects of acute food and/or water deprivation on muricide. Physiology and Behavior, 34, 1009-1012, 1985.
34. Armstrong, S.M. and J. Redman. Melatonin Administration: Effects on rodent circadian rhythms. In: S. Clark (Ed.) Photoperiodism, Melatonin and the Pineal. Ciba Foundation Symposium 117. England: Pitman, 1985. pp 188-202.
35. Cassone, V.M., M.J. Chesworth and S.M. Armstrong. Entrainment of rat circadian rhythms by daily injections of melatonin depends upon the hypothalamic suprachiasmatic nuclei. Physiology and Behaviour, 36, 1111-1121, 1986.
36. Armstrong, S.M., V.M. Cassone, M.J. Chesworth, J.R. Redman and R.V. Short. Synchronization of mammalian circadian rhythms by melatonin. Journal of Neural Transmission, Suppl., 21, 375-394, 1986.
37. Cassone, V.M., M.J. Chesworth and S.M. Armstrong. Dose-dependent entrainment of rat circadian rhythms by daily injection of melatonin. Journal of Biological Rhythms, 1, 219-229, 1986.

38. O'Reilly, H., S.M. Armstrong and G.J. Coleman. Restricted feeding does not entrain activity rhythms of a predatory marsupial, *Dasyuroides byrnei*. Physiology and Behaviour, 38, 471-476, 1986.
39. Short, R.V. and S.M. Armstrong. Method for minimizing disturbances in circadian rhythms of bodily performance and function. United States Patent #4,660,723, July 15, 1986. #4,665,086, May 12, 1987. Canadian, Japanese, European and Australian Patents also granted.
40. McIntyre, I.M., T.R. Norman, G.D. Burrows and S.M. Armstrong. Melatonin rhythm in human plasma and saliva. Journal of Pineal Research, 4, 177-183, 1987.
41. Chesworth, M.J., V.M. Cassone and S.M. Armstrong. Effects of daily melatonin injections on activity rhythms of rats in constant light. American Journal of Physiology, 253, R101-R107, 1987.
42. Armstrong, S. Melatonin: an internal zeitgeber? Integrative Psychiatry, 5, 19-21, 1987.
43. Redman, J. and S.M. Armstrong. Re-entrainment of rat circadian activity rhythms: effects of melatonin. Journal of Pineal Research, 5, 203-215, 1988.
44. Thomas, E.M.V. and S.M. Armstrong. Melatonin administration entrains female rat activity rhythms in constant darkness but not constant light. American Journal of Physiology, 255: R237-R242, 1988.
45. Armstrong, S.M. and M.J. Chesworth. Melatonin phase-shifts a mammalian circadian clock. In: G.P. Trentini, C. De Gaetani and P. Pevet (Eds.) Fundamentals and Clinics in Pineal Research. Raven Press, 1988, 195-198.
46. Armstrong, S.M. Melatonin: the internal zeitgeber of mammals? Pineal Research Reviews, 7, 157-203, 1989.
47. Armstrong, S.M., E.V. Thomas and M.J. Chesworth. Melatonin induced phase-shifts of rat circadian rhythms. In: S.F. Pang and R.J. Reiter (Ed.) Advances in Pineal Research, Vol. 3, J. Libbey: London, U.K. 1989.
48. McIntyre, I.M., T.R. Norman, G.D. Burrows and S.M. Armstrong. Human melatonin suppression by light is intensity dependent. Journal of Pineal Research, 16, 149-156, 1988.
49. Coleman, G.J., H.M. O'Reilly and S.M. Armstrong. Food deprivation-induced phase shifts in *Sminthopsis macroura froggatti*. Journal of Biological Rhythms, 4, 49-60, 1989.
50. McIntyre, I.M., T.R. Norman, G.D. Burrows and S.M. Armstrong. Human melatonin response to light at different times of the night. Psychoneuroendocrinology, 14, 187-193, 1989.
51. Armstrong, S.M. Melatonin and the pineal in the circadian control of mammals. In: Multi-author Review - Phylogeny and Function of the Pineal. Experimentia, 45, 932-938, 1989.
52. McIntyre I.M., S.M. Armstrong, T.R. Norman and G.D. Burrows. Treatment of seasonal affective disorder with light: Preliminary Australian experience. Australian, New Zealand Journal of Psychiatry, 23, 369-372, 1989.
53. Thomas, E.M.V. and S.M. Armstrong. The effect of ovariectomy and oestradiol on the unity of female rat circadian activity rhythms. American Journal of Physiology, 257, R1241-R1250, 1989.
54. Armstrong, S.M. and I.M. McIntyre. Winter of our discontent. Today's Life Sciences, 1:No.5, 10-17, 1989.
55. Kennedy, G.A., S.M. Armstrong and G.J. Coleman. A phase response curve for 1-hour light pulses for *Dasyuroides byrnei*. Physiology and Behavior, 46, 000-000, 1989.
56. McIntyre, I.M., T.R. Norman, G.D. Burrows and S.M. Armstrong. Quantal melatonin suppression by exposure to low intensity light in man. Life Science, 45, 327-332, 1989.
57. Armstrong, S.M., M.J. Chesworth, R. Willig, G.J. Coleman and V.M. Cassone. Unusual circadian activity rhythms in captive *Isoodon obesulus* and *Isoodon macrourus*. In: J.H. Seebeck, P.R. Brown, R.L. Wallis and C.M. Kemper (Eds.) Bandicoots and Bilbies. Surrey Beatty & Sons : Sydney 271-283, 1990.
58. McIntyre, I.M., F.K. Judd, G.D. Burrows, S.M. Armstrong and T.R. Norman. Plasma concentrations of Melatonin in panic disorder. American Journal of Psychiatry. 147, 462-464, 1990.

59. Kennedy, G.A., G.J. Coleman and S.M. Armstrong. The effect of restricted feeding on the wheel-running activity rhythms of the predatory marsupial, Dasyurus viverrinus. Journal of Comparative Physiology, 166, 607-618, 1990.
60. Kennedy, G.A., G.J. Coleman and S.M. Armstrong. Circadian rhythms of wheel running in Dasyurus viverrinus. Australian Mammology, 13, 11-16, 1990.
61. McIntyre, I.M., M. Johns, T.R. Norman and S.M. Armstrong. A portable light source for bright light treatment. Sleep 13, 272-275, 1990.
62. Bruck, D., S.M. Armstrong and G. Coleman. Dietary factors in narcolepsy. In: Sleep' 88, Gustav Fisher, Verlag: Stuttgart 1989.
63. McIntyre, I.M., T.R. Norman, G.D. Burrows and S.M. Armstrong. Melatonin supersensitivity to dim light in Seasonal Affective Disorder. Lancet (Feb. 24, 488, 1990).
64. Kennedy, G.A., G.J. Coleman and S.M. Armstrong. Restricted feeding entrains the wheel-running activity rhythms of the kowari, Dasyuroides byrnei (Marsupalia). American Journal of Physiology 30, R-R, 1991.
65. Armstrong, S.M. Entrainment of activity-rest cycles in rodents by melatonin. In: Advances in Pineal Research Vol. 5 (Eds.) J. Arendt and P. Pevet. J. Libbey & Co.: London, U.K. 259-266 (1991).
66. Armstrong, S.M. and J. Redman. Melatonin: A chronobiotic with anti-aging properties. Medical Hypotheses 34, 300-309, 1991.
67. Wooley, P.A., Raftopoulos, S.A., Coleman, G.J. and S.M. Armstrong. A comparative study of circadian activity patterns of two New Guinea Dasyurids, Phascosorex doralis and Antichinus wilhelmina. Australian Journal of Zoology 39:661-671, 1991.
68. Vanselow, W., L. Dennerstein, S.M. Armstrong and P. Lockie. Retinopathy and bright light therapy. American Journal of Psychiatry. 148:1266-1267, 1991.
69. McIntyre, I.M., T.R. Norman, G.D. Burrows and S. Armstrong. Melatonin and cortisol response to acute nocturnal light exposure in healthy volunteers. Psychoneuroendocrinology 17:243-248, 1992.
70. Armstrong, S.M. Treatment of sleep disorders with melatonin. In: Advances in Pineal Research, Vol. 6 (Eds) Foldes, A. and R.J. Reiter, J. Libbey, London, 1992, pp 263-274.
71. Armstrong, S.M. and A. Wirz-Justice. Biological Clocks In: Biology: Brain and Behaviour, Book 5, Control of Behaviour, (Ed) F. Toates, Open University, Milton Keynes, U.K. 1992, pp 47-95
72. Armstrong, S.M. and J.R. Redman. Melatonin and Circadian Rhythmicity. Chapter 12. In Melatonin: Biosynthesis, Physiological Effects, and Clinical Applications. (Eds) Yu, H-S. and Reiter, R.J. CRC Press : Boca Raton, Florida, 1992 pp 187-224.
73. Vanselow, W., S.M. Armstrong, Lockie, P., and Dennerstein, L. Retinopathy and bright light: A reply. American Journal of Psychiatry. 149:1610-1611, 1992.
74. McIntyre, I.M., S.M. Armstrong, G.D. Burrows and T.R. Norman. Alterations in plasma melatonin and cortisol following alprazolam in humans. Chronobiology International. 10:205-213, 1993.
75. Barrington, J., H. Jarvis, J. Redman and S.M. Armstrong. Limited effects of three levels of daily stress on rat free running locomotor and drinking rhythms. Chronobiology International. 10:410-419, 1993.
76. Murray, G., D. Hay and S.M. Armstrong. SPAQ reliability in an Australian Twin sample. Bulletin of the Society for Light Treatment and Biological Rhythms. 5:32, 1993.
77. Marriot, P., K.M. Greenwood, and S.M. Armstrong. An assessment of SPAQ and SPAQ+ reliability. Bulletin of the Society for Light Treatment and Biological Rhythms. 5:33-34, 1993.
78. Armstrong, S.M., O. McNulty, B. Guardiola-Lemaitre J.R. Redman. Successful use of S20098 and melatonin in an animal model of delayed sleep phase syndrome (DSPS). Pharmacology, Biochemistry and Behaviour. 46:45-49, 1993.



79. Suzuki, S., L. Dennerstein, K. Greenwood, T. Sano, E. Satohisa, and S.M. Armstrong. Melatonin and hormonal changes in disturbed sleep during pregnancy. Journal of Pineal Research. 15:191-198, 1993
80. Marriott, P.F., K.M. Greenwood, and S.M. Armstrong. Seasonality in panic disorder. Journal of Affective Disorders. 31: 75-80, 1994.
81. Kennedy, G.A., R. Hudson, and S.M. Armstrong. Circadian wheel-running activity rhythms in two strains of domestic rabbit. Physiology and Behaviour. 55:385-389, 1994.
82. Bruck, D., S.M. Armstrong, and G. Coleman. Sleepiness after glucose in narcolepsy. Journal of Sleep Research. 3: 171-179, 1994
83. Suzuki, S., L. Dennerstein, K. Greenwood, T. Sano, E. Satohisa, and S.M. Armstrong. Sleep patterns during pregnancy of Japanese women. Journal of Psychosomatic Obstetrics and Gynaecology. 15:19-26, 1994.
84. Graham, D. and S.M. Armstrong. The Pineal Gland. In: The Decade of the Brain. (Ed.) D. Graham, Syme Group, 1995.

### EARLY RETIREMENT from La Trobe University

85. Redman, J.R., M. Brown, B. Guardiola-Lemaitre, S.M. Armstrong. Effects of S20098, a melatonin agonist, on re-entrainment of rat circadian activity rhythms. Psychopharmacology. 118: 385-390, 1995.
86. Armstrong, S.M. Animal models for chronobiotics. European Journal of Medicinal Chemistry, 30: S653-S660, 1995.
87. Kennedy, G.A., G.J. Coleman, and S.M. Armstrong. Entrainment of circadian wheel running rhythms of the northern brown bandicoot, Isodon macrourus by daily restricted feeding schedules. Chronobiology International. 12: 176-187, 1995.
88. Murray, GW, Hay, DA & S.M. Armstrong. Personality factors in Seasonal Affective Disorder: Is seasonality an aspect of neuroticism? XxxxxElsevier, 1995.
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90. Dawson, A. and Armstrong, S.M. Chronobiotics - Drugs that Shift Rhythms. In: Pharmacology and Therapeutics 69: 15-36, 1996.
91. Trinder, J., S.M. Armstrong, C. O'Brien, D. Luke, and M. Martin. Inhibition of melatonin secretion onset by low levels of illumination. Journal of Sleep Research. 5:77-82, 1996.
92. von Treller, K., Norman, T.R. and S.M. Armstrong. Effects of sleep, sleep deprivation, and sleep recovery on plasma melatonin, cortisol, prolactin and TSH. Journal of Pineal Research. 20: 7-14, 1996.
93. Wirz-Justice, A. and S.M. Armstrong. Melatonin: Nature's soporific? Journal of Sleep Research. 5: 137-141, 1996.
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95. Willis, G. L. and S.M. Armstrong. Orphan Neurons and amine excess: the functional neuropathology of parkinsonism and neuropsychiatric disease. Brain Research Reviews. 27: 177-242, 1998.
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97. Tooley, G., S.M. Armstrong, T.R. Norman and A. Sali. Acute increases in night-time plasma melatonin following a period of meditation. Biological Psychology. 53: 69-78, 2000.
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100. Stokes, M., S.M. Armstrong, and S. Kent. The effects of multiple light pulses on circadian phase response of the rat. Journal of Biological Rhythms. 14: 172-184, 1999.
101. Howard, M, Pearce R, and Armstrong, SM. Sleep Hygiene: Advice for patients. Depression Awareness Journal. 8: 7-8, 1999.
102. Stokes, M., S. Kent, and S.M. Armstrong. The effects of repeated pulses of light at the same time period responses of the rat circadian pacemaker. Chronobiology International. 18: 187-201, 2001.
103. Stokes, M., S.M. Armstrong, and S. Kent. The relationship of phase and period responses to light pulses. Biological Rhythm Research 33: 303-317, 2002
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106. Ellis, K.A., MA Mehta, KA Wesnes, S.M. Armstrong, PJ Nathan. Combined D<sub>1</sub>/D<sub>2</sub> receptor stimulation under conditions of dopamine depletion impairs working memory performance in humans. Psychopharmacology 181: 771-780, 2005.
107. Willis, G.L., & Armstrong. S.M. Editorial (Invited): New vistas on Parkinson's Disease. European Journal of Neurology. 17: 519-720, 2010.
108. Willis, G.W., Willis, Moore, C. & Armstrong, S.M. Breaking away from dopamine deficiency: an essential new direction for Parkinson's Disease. Reviews of Neuroscience. 23: 403-428,, 2012
109. Willis, G.L., Moore, C. & Armstrong, S.M. A Historical Justification for and Retrospective Analysis of the Systematic Application of Light Therapy in Parkinson's Disease. Reviews of Neuroscience. 23: 199-226, 2012
110. Spong, J., Kennedy, G.A., Brown, D.J., Armstrong, S.M. and Berlowitz, D.J. "Melatonin supplementation in patients with complete tetraplegia and poor sleep," Sleep Disorders. xx : xxx-xx, 2013.
111. Bartlett, D., Biggs, S., & Armstrong, S.M. Circadian Rhythm Sleep Disorders among adolescents: Assessment and Treatment Options. Medical Journal of Australia, Suppl on Sleep Medicine : xxx-xxx, Sept/Oct 2013.
112. Willis, G.L., Moore, C. & Armstrong, S.M. Parkinson's Disease, Light and Melanocytes: Looking beyond the retina. Scientific Reports (Nature online) 4: 3921-??, 2014

## **B. SUBMITTED/ PENULTIMATE DRAFTS**

Spong, J., Kennedy, G.A., Tseng, J., Brown, D.J., Armstrong, S.M. and Berlowitz, D.J. "The Hormonal Basis of Sleep Disruption in Tetraplegia: A Randomise double-blind, placebo controlled crossover trial of 3mg melatonin" Sleep .(submitted)

## **C. IN PREPARATION**

Armstrong, SM & Bartlett, D. A Sleeper's Almanac: The complete guide to beating insomnia. E-Book

Willis, G.L., Armstrong, S. Copper, chromium and arsenic treated waste facilitates the growth and proliferation of the earthworms *Lumbricus rubellus* and *Eisenia fetida*. Ecotoxicology and Environmental Safety.

## D. INTERNATIONAL PATENTS

1. Short, R.V. and S.M. Armstrong. *Method for minimizing disturbances in circadian rhythms of bodily performance and function*. United States Patent #4,660,723, July 15, 1986. #4,665,086, May 12, 1987. Canadian, Japanese, European and Australian Patents also granted.
2. Willis, G.L. and S M Armstrong, *Method for the treatment of neurological or neuropsychiatric disorders*.. Provisional Patent 1996. Full patents taken out by Willis in subsequent years.

## E. RESEARCH REPORTS

Does 1mg oral melatonin administration induce human sleepiness? Research Report: Neuroscience Division, Lilly Corporate Center, Eli Lilly Company, Indianapolis, Indiana, USA 1998.

## PAPERS PRESENTED AT CONFERENCES AND SEMINARS

(Most of the papers delivered at conferences have appeared as abstracts in conference proceedings, books or journals).

### A. INVITED SPEAKER

Endogenous rhythms and feeding behaviour. Invited speaker at 47th ANZAAS Congress (Psychology Section), Hobart, 1976.

Biological Rhythms Symposium - Chairperson, Australian Neuroscience Society, Melbourne, February 1983.

Zeitgebers other than light. Invited speaker at XXIXth International Physiological Congress, Sydney, August 1983. Also a symposium co-Chairperson (with Professor M. Moore-Ede, USA).

Melatonin administration: effects on rodent circadian rhythms. Invited speaker at the 117th Ciba Foundation Symposium on 'Photoperiodism, Melatonin and the Pineal', London, U.K., March 1985.

Synchronization of mammalian circadian rhythms by melatonin. Invited speaker at the First International Conference on Melatonin in Humans, Vienna, Austria, November 1985.

Melatonin induced phase-shifts of rat circadian rhythms. Invited speaker, Melatonin and the Pineal Gland. Satellite Symposium of 8th International Congress of Endocrinology, Hong Kong, July 1988. I was also co-Chairperson (with Professor Y. Morita, Japan) of Session 2.

Melatonin and synchronization of rodent circadian rhythms. Invited speaker for Symposium on "Physiological and behavioural responses of organisms to changes in photoperiod" at 10th International Congress on Photobiology, Jerusalem, Israel, October 1988. Also Chairperson of Session 2.

Entrainment of activity-rest cycles in rodents by melatonin. Plenary lecture at the Vth Triannual Colloquium of the European Pineal Study Group, Guilford, Surrey, UK. September 1990.

Melatonin as a chronobiotic. Key Speaker at 20th International Conference on Chronobiology, Tel Aviv, Israel, June 1991.

Exogenous melatonin administration and synchronization of circadian rhythms. Invited speaker, 1991 International Symposium on Pineal Hormones, Satellite Symposium of the 13th Biennial Conference of the International Society for Neurochemistry, Bowral, N.S.W., July 1991.

Treatment of sleep disorders with melatonin: animal models for clinical applications. Invited speaker at AUS-Sleep 1992, International Update Conference, Cairns, Queensland, September 3-6, 1992. Also co-Chairperson (with Professor B. Sack, USA) of Session A7: The timing of sleep: update on chronobiology.

Role of melatonin in regulation of biological rhythms. Invited speaker for Sleep and Biological Rhythms symposium, Biological Psychiatry Section, Australian Society for Psychiatric Research, Adelaide, December 2, 1992.

Animal models of circadian rhythm disorders and their treatment with melatonin, in symposium: Melatonin: Basic Biology and Clinical Applications, 7th Annual APPS meeting, Los Angeles, USA, June 22-27, 1993.

Co-chairperson( with R.J.Wurtman & B.Claustrat) Session 4: Therapeutic applications of melatonin and agonists, in symposium on Circadian Rhythms and Sleep Disorders: Role of Melatonin, New York, September 3-4, 1993.

Invited Discussant, at the 183rd Ciba Foundation Symposium on Circadian Clocks and their Adjustment, London,U.K., September 7-9,1993.

Melatonin, darkness, PRC's and drugs. Invited speaker at Symposium on Light and Dark as a Drug, C.N.I.P.XIX Congress, Washington, D.C, June 27-July 1,1994.

Animal models for chronobiotics, Invited speaker at Satellite Symposium, Melatonin Agonists/ Antagonists: Clinical Perspectives at XIIIth International Symposium On Medicinal Chemistry, Paris, France, September 19-23, 1994.

Co-chairperson (with A.Wirz-Justice) of Symposium on Circadian rhythms in Neuropsychiatry and Sleep Disorders. XXth C.N.I.P. Congress, Melbourne, Australia, June 23-27, 1996.

Melatonin as a chronobiotic, Invited speaker at IBC's International Conference on Psychopharmacological Treatments for Sleep Disorders, San Francisco, USA July 18-19, 1996.

Is melatonin a sleeping pill? Invited Plenary Speaker, Australasian Sleep Association 1997 Annual Scientific Meeting, Wellington, New Zealand, April 5-7, 1997.

Melatonin as a chronobiotic: animal models for human circadian rhythm sleep disorders. Invited speaker at Melatonin after Four Decades, Hamburg, Germany, 1999.

Melatonin: The Facts. Invited speaker, Natural Therapies Upskill Day (for GP's), Royal Hospital for Women, Sydney, Australia, June 16, 2001.

Melatonin: The Fact and Fallacy. Invited speaker, Evidenced Based Natural Therapies (for GP's), RMIT, Melbourne, Australia, October 26, 2002.

Melatonin: The Internal Zeitgeber of Mammals. A Recapitulation. SRBR 11<sup>th</sup> Biennial Meeting,, Florida, USA 2008 Aaron Lerner Memorial Symposium. Co-Chair Session 2. Session video taped (plus subsequent formal interview) for Archives of Chronobiology.

## **B. SEMINARS, COLLOQUIA, CONFERENCES**

Hypothalamic regulation of drinking behaviour: cholinergic and beta-adrenergic involvement. The Australasian Society of Clinical and Experimental Pharmacology, Sixth Annual Meeting, Melbourne 1972.

The effect of intrahypothalamic injections of guanethidine on catecholamine fluorescence and food intake in the rat (delivered by G. Singer). The Australasian Society of Clinical and Experimental Pharmacologists, Sixth Annual Meeting, Melbourne 1972.

Intracranial injections of 6-hydroxydopamine: comparison of effects on food and water intake and daily body temperature in body weight reduced, and free feeding rats. Australian Psychological Society 10th Annual Conference, Melbourne 1975.

Effects of intrahypothalamic administration of noradrenaline on feeding behavior of the rat under conditions of light and darkness (delivered by G. Singer). The XXVI International Congress of Physiological Sciences, New Delhi, 1974.

Also delivered by S. Armstrong to Meeting of Experimental Psychologists, Monash University, 1974.

Non-regulatory drinking behaviour (delivered by G. Singer). Australian Neuroscience Annual Meeting, Melbourne 1975.

Comparison of the effects of intracranial injections of 6-OHDA and guanethidine on consummatory behaviour and monoamine depletion (delivered by G. Singer). U.S.-Japan Joint Seminar on Central Neural Control of Eating and Obesity, Hawaii, 1975.

Short-term food deprivation at different times of the light-dark cycle in laboratory rats. 5th Experimental Psychology Conference, 1978.

Alcohol Consumption: biological rhythms, photoperiod and melatonin. Pineal Gland Symposium, La Trobe University, 1980. This symposium was organised by S. Armstrong and K.T. Ng.

Influence of darkness and exogenous melatonin on rat self-administration of ethanol. Pineal Function. Satellite symposium of 6th International Congress of Endocrinology, Thredbo, Australia, February 1980.

Biological rhythms in animal physiology and behavior, with special reference to feeding and drinking. Seminar at CSIRO Division of Wildlife Research, Canberra, March 1981.

A preliminary attempt at pharmacological entrainment of rat free-running circadian activity rhythms. Australian Society for the Study of Animal Behaviour, Richmond, NSW, May 1981.

Biological rhythms and behaviour. National Student Psychological Conference, Melbourne University, May 1981.

The Pineal Gland. Colloquium at Psychology Department, La Trobe University, Melbourne, August, 1981.

Streptozotocin-induced rat diabetes: Taste aversion learning and lack of self-selection for high fat diet. Australian Neuroscience Society, Sydney, February 1982.

Entrainment of rat free-running activity rhythms by melatonin (delivered by J. Redman). Australian Neuroscience Society, Sydney, February 1982.

Melatonin entrains rat free-running circadian rhythms. 6th European Neuroscience Congress, Malaga, Spain, September 1982.

The body clock in shiftwork and jet lag. Shiftwork and Quality of Life Seminar, La Trobe University, May 1983.

Preliminary observations on laboratory behaviour and comparative learning ability of dasyurid marsupials, the fat-tailed dunnart (*Sminthopsis crassicaudata*) (delivered by R. Willig), Australian Mammal Society, Armadale, N.S.W., May 1983.

Pinealectomy: Increased sensory input or reduced homeostatic mechanism? (delivered by J. Redman) XXIXth International Physiological Congress, Sydney, August 1983.

Entrainment of activity rhythms in the marsupial carnivore, *Dasyuroides byrnei* by meal feeding schedules. (delivered by H.M. O'Reilly) XXIXth International Physiological Congress, Sydney, August 1983.

Time of day-dependent effects of dipsogens on water balance in the rat. (delivered by J. Redman) 8th International Symposium on Olfaction and Taste, Melbourne, August 1983.

The role of the rat pineal gland in synchronization of circadian rhythms. Colloquium at Anatomy Department, Monash University, Melbourne, May 1984.

Marsupial research in the Department of Psychology: A report. Colloquium at Psychology Department, La Trobe University, Melbourne, May 1984.

Circadian rhythm research at La Trobe University Psychology Department: A report. Institute of Neuroscience, University of Oregon, Eugene, June 1984.

Unusual circadian activity rhythms in captive *Isodon obesulus* and *I. macrourus*. Bandicoot Symposium at the 31st Scientific Meeting of Australian Mammal Society, Melbourne, May 1985.

Temperature as a synchronizer of daily activity rhythms in *Smithopsis macroura froggatti* and *Mus musculus*. (delivered by H.M. O'Reilly). Australian Mammal Society, Melbourne, May 1985.

Entrainment of rat circadian rhythms by daily injection of melatonin: synchronization in constant light and dependence upon the suprachiasmatic nuclei. (presented by V.M. Cassone). Society for Neuroscience, California, USA, October 1985.

Melatonin alters direction and rate of re-entrainment of rat activity rhythms after phase-shifts of the light-dark cycle. (delivered by J. Redman). First International Congress on Melatonin in Humans, Vienna, Austria, November 1985.

Pineal Research Workshop, Chairperson of Session 2, Monash University, November 1986.

Melatonin phase-shifts a mammalian circadian clock. IV Colloquium of the European Pineal Study Group, Modena, Italy, August 1987.

Melatonin, the pineal gland and circadian rhythms. Colloquim at Psychology Department, Melbourne University, June 1987.

Diurnal variation for Angiotensin II receptor binding in the suprachiasmatic nucleus of the rat. (presented by D.A. Carey and F.A.O. Mendelsohn). Australian Neuroscience Society, Canberra, February 1988.

Meal associated activity rhythms in Dasyurus viverrinus. (presented by G. Kennedy). Australian Mammal Society, Sydney, May 1988.

Melatonin administration entrains female rat activity rhythms in constant darkness, but not in constant light. (presented by E.M.V. Thomas). First meeting for the Society for Research on Biological Rhythms, Charleston, South Carolina, USA, May 1988.

Dietary behaviour and Narcolpesy and effect of glucose on daytime sleepiness of narcoleptics. (Delivered by D. Bruck). First Conference of the Australasian Sleep Research Association, May 1988, Sydney.

Melatonin, the pineal gland and synchronization of circadian rhythms. Colloquium at Psychology Department, Monash University, July 1988.

Melatonin, the pineal gland and synchronization of circadian rhythms. Colloquium at Psychology Department, La Trobe University, July 1988.

Melatonin as a chronobiotic. Colloquium, Psychiatrische Universitätsklinik, Basel, Switzerland, August 1988.

Melatonin and synchronization of rodent circadian rhythms. Colloquium at Department of Pharmacology, University of Zurich, Switzerland, August 1988.

Melatonin-induced phase-shifts of circadian rhythms. Colloquium, Zoology Department, Philipps Universität, Marburg, FRG, October 1988.

Melatonin, the pineal gland and mammalian circadian rhythms. Colloquium at Max-Planck-Institut, Seewiesen, FRG, November 1988.

The pineal, melatonin and circadian rhythms. Colloquium, CSIRO Division of Wildlife and Ecology, Canberra, February 1989.

Melatonin and synchronization of circadian rhythms. Colloquium, Developmental Neurobiology, Australian National University, Canberra, February 1989.

Human melatonin suppression by light at night. Society for Light Treatment and Biological Rhythms, NIMH, Bethesda, Maryland, June 1989.

The Pineal Gland: The third eye enters the scientific age. Ballarat University College, July 1989.

The effect of ovariectomy and estradiol treatment on the unity of female rat circadian rhythms in constant light. (Presented by E.M.V. Thomas) Society for Neuroscience, Phoenix, Arizona, October 1989.

Phase response curve for 1-hour light pulses in *Dasyuroides byrnei*. (Presented by G.Kennedy) Australian Mammal Society, Annual General Meeting, 1989.

The effect of daily restricted feeding on the circadian activity rhythms of *Dasyurid* and *Paramelid* marsupials. (Presented by G.Kennedy) Mas-Planck Institute, Andechs, West Germany, June 1990.

Melatonin supersensitivity to a dim light challenge in SAD (presented by I.M. McIntyre). Society for Light Treatment and Biological Rhythms, Columbia University Health Sciences Campus, New York, May 1990.

Rhythms and Blues. Seminar, Key Centre for Women's Health, University of Melbourne, April 1990.

Biological rhythms and shift work. Conference on: Problems of Sleep, School of Humanities, Western Institute of Technology, Victoria, June 1990.

Disturbance to circadian mechanisms underlying the sleep-wake cycle. Australian Psychological Congress, Symposium on Sleep: Basic mechanisms and clinical applications. September, 1990.

Rhythms and Blues. Seminar, Psychology Department, Deakin University, Victoria, June 1991.

Sleep Disorders, SAD and Light Therapy. Seminar, Workcare, Moorabbin, July 1991.

Bright light and shifting body clock rhythms. Brain Behaviour Research Institute Seminar, "Shiftwork: People and Performance", La Trobe University, February 1992.

Circadian Rhythms. Melbourne Sleep Meetings, Heidelberg Repatriation Hospital, April 2, 1993.

Melatonin and synchronization of circadian rhythms: animal models and clinical applications, seminar at Center for Neurobiology of Learning and Memory, University of California, Irvine, June 17, 1993.

Overnight human plasma melatonin, prolactin and cortisol under conditions of normal sleep, sleep deprivation, and sleep recovery, 5th Annual Meeting on Light Treatment and Biological Rhythms, University of California, San Diego Medical School, June 19-20, 1993.

Clinical uses of melatonin. Grand Round, Division of Psychological Medicine, Austin Hospital, August 23, 1993.

Melatonin as a chronobiotic. Health Sciences University, Portland, Oregon, September 1, 1993.

Use of melatonin in circadian rhythm disorders. Melbourne Sleep Meetings, Heidelberg Repatriation Hospital, July 1, 1994.

Use of melatonin for treating sleep disorders of the circadian kind, Division of Neuroscience, Eli Lilly Research Laboratories, Indianapolis, Indiana, September, 1994.

Report on possible role of melatonin and pineal gland in EMF's, Australian Electricity Commission Workshop, October, 1994.

Use of melatonin in sleep disorders of the circadian type. Colloquium, Department of Psychology, La Trobe University, October 20, 1994.

Management of Insomnia. Melbourne Sleep Meetings, Heidelberg Repatriation Hospital, July 2, 1995.

Effects of 50HZ magnetic fields on human heart-rate and plasma melatonin. (Presented by A.Wood), Australian Electricity Commission Workshop, October, 1996.

Chronobiotic versus hypnotic properties of melatonin. XX th CNIP Congress, Melbourne, Australia, June 1996.

The phase shifting properties of low light intensities administered during the onset of melatonin secretion. (Presented by D.Luke), 10th Annual APSS Meeting, Washington, USA, June 1996.

A method for determining onset of the nocturnal rise in plasma melatonin.

( Presented by M.J. Martin), XVI International Congress of Clinical Chemistry, London, UK, July 1996.

Integrity of the circadian time keeping system in sufferers of Chronic Fatigue Syndrome. (Presented by G. Tooley) International Conference on Stress and Health, Sydney, September 1996.

Insomnias and circadian rhythm disorders. An Introduction to Sleep Disorders and their Practical Management: A Course for General Practitioners, Austin and Repatriation Medical Centre, June 1997.

Insomnia Management. An Introduction to Sleep Disorders and their Practical Management: A Course for General Practitioners, Austin and Repatriation Medical Centre, June 1997.

Sleep disorders of the circadian kind. Eli Lilly Research Laboratories, Indianapolis, USA, August 1997.

Melatonin and circadian rhythms. German Aerospace Medical Center, Cologne, Germany, September 1998.

Are Human plasma melatonin profiles delayed in some individuals in response to 50 Hz magnetic field exposure? (Sait ML, Wood AW, Armstrong SM, Martin MJ. Presented by A.Wood) US Dept. of Energy Annual Review of Projects, San Antonio, Tx, November 1996.

Treatment of Sleep Disorders 1, Veterans Psychiatry Unit, Austin-Repatriation Medical Centre, Repatriation Campus, Heidelberg, Vic, July 2002.

Melatonin: Facts and Fallacies, The Melbourne Clinic, Richmond, Vic, October 9, 2002.

Management of Insomnia, School of Social and Behavioural Sciences, Swinburne University of Technology, October 23, 2002.

Treatment of Sleep Disorders 2, Veterans Psychiatry Unit, Austin-Repatriation Medical Centre, Repatriation Campus, Heidelberg, Vic, October 2004.

Sleep Disorders and Aging: an overview. University of the Third Age, Legacy House, Melbourne, Vic, December 2004.

AVT entrainment of rat free-running activity rhythms by daily injections of arginine vasotocin and vasopressin.. (Armstrong, S.M. & Redman, J.R) World Sleep 07. 5<sup>th</sup> Congress of the WFSRMS, Cairns Australia, 2-6 September 2007.

### **APS-ASA One day workshops On Treating Insomnia**

#### ACT

Armstrong, S. & Kennedy, G. Treating Insomnia: What Psychologists Need to Know. June 18, 2011. Canberra

#### Tasmania

Armstrong, S. & Junge, M. Treating Insomnia: What Psychologists Need to Know. November 20<sup>th</sup> 2010. Hobart

Armstrong, S. & Junge, M. Treating Insomnia: What Psychologists Need to Know. March 5<sup>th</sup> 2011. Hobart

#### NSW

Armstrong, S. & Bartlett, D. Treating Insomnia: What Psychologists Need to Know. October 1, 2010. Woolcock Institute, Glebe,

Armstrong, S. & Bartlett, D. Treating Insomnia: What Psychologists Need to Know. March 25, 2011. Glebe,

Armstrong, S. & Bartlett, D. Treating Insomnia: What Psychologists Need to Know. May 27, 2011. Glebe,

Armstrong, S. & Bartlett, D., Gray, C., & Junge, M. Treating Insomnia: What Health Professionals Need to Know, October 29<sup>th</sup>, 2011. Darling Harbour

#### Queensland

Armstrong, S. & Smith, S. Treating Insomnia: What Psychologists Need to Know. Feb 18, 2011. QUT, Kelvin Grove, Brisbane, Queensland.

Armstrong, S. & Smith, S. Treating Insomnia: What Psychologists Need to Know. July 22, 2011. QUT Kelvin Grove, Brisbane, Queensland.

Armstrong, S. & Smith, S. Treating Insomnia: What Psychologists Need to Know. May 18, 2012. Mackay, Queensland.

#### Victoria

Armstrong, S. & Junge, M. Treating Insomnia: What Psychologists Need to Know. August 14<sup>th</sup> 2010. Melbourne

Armstrong, S. & Junge, M. Treating Insomnia: What Psychologists Need to Know. November 26<sup>th</sup> 2010. Melbourne

Armstrong, S. & Junge, M. Treating Insomnia: What Psychologists Need to Know. February 25<sup>th</sup> 2011. Melbourne

Armstrong, S. & Junge, M. Treating Insomnia: What Psychologists Need to Know. April 15<sup>th</sup>, 2011.

Armstrong, S. & Junge, M. Treating Insomnia: What Psychologists Need to Know. xxxx, 2012. xxxxx

Armstrong, S. & Junge, M. Behavioural Management of the Insomnias July 725, 2012. College of Health Psychology, Melbourne University, Auburn Campus,

Armstrong, S. & Junge, M. Behavioural management of the Parasomnias October 25<sup>th</sup>, 2013. College of Health Psychology, Melbourne University, Auburn Campus,

#### Other Talks, Seminars, One day Workshops On Insomnias & Parasomnias

Treating Insomnia February 22, 2011, (Talk followed by Panel discussion), Eastern Health (Ringwood Hospital).

Anxiety and Sleeping Problems, August 11, 2011, Anxiety Recovery Centre Victoria, Emotion Focussed Practice Centre, South Yarra

Primary Insomnia & Secondary Insomnia (PD Workshop for GP's,) ARMC, Austin Campus, June 20, 2011

Insomnia in the Elderly, (Australian Doctor Education: Older Patient Seminar) Parkville, Melbourne, August 20<sup>th</sup>, 2011.

Behavioural Management of Sleep Disorders (4x2 hr Tutorials), Reconnexions, Glen Iris, Melbourne, September/October 2012



Insomnia in the Elderly, Older Patient Seminar, Australian Doctor Education, Melbourne University, Carlton, Vic, August 20, 2011

Treating Insomnia (Nevil Forum) 14 November .2011, Eastern Health, Box Hill Hospital, Vic.

Behavioural Management of Insomnia, October 24, 2011. APS cluster, Mt Macedon Ranges, Vic.

Primary & Secondary Insomnias, PD workshop for GP's Workshop, ARMC, @ Austin Campus, June 19<sup>th</sup> 2012

Behavioural Management of the Circadian Insomnias & the Parasomnias, June 18, 2012, APS cluster, Mt Macedon Ranges,

Zander, D. & Armstrong, S. Staying Awake: Putting Sleep on the Trauma Agenda. May 6, 2011, ARMC, West Heidelberg, Vic

Zander, D. & Armstrong, S. Staying Awake: Putting Sleep on the Trauma Agenda. May 25<sup>th</sup>, 2012, ARMC, Heidelberg, Vic

CHPM approx 29-04-2012

Zander, D. & Armstrong, S. Sleep after Trauma (Bushfire Victims Talks) December 8<sup>th</sup> 2011, Yarra Glen, Vic

Zander, D. & Armstrong, S. Sleep after Trauma (Bushfire Victims Talks) xxxxxxxxxx 2011, Kinglake, Vic

Zander, D. & Armstrong, S. Sleep after Trauma (Bushfire Victims Talks) xxxxxxxxxx 2011, Marysville, Vic

Sleep strategies for Insomnia1. Reconnexions, Darebin Arts & Entertainment Centre, August 13, 2013

Sleep strategies for Insomnia 2: Circadian Insomnia & Depression. Reconnexions, Darebin Arts & Entertainment Centre, August 13, 2013

Insomnia: How to deal with a common problem. ARMC, College of General Practitioners (PD for GP's), October xx.2013,

Speed Date with a Scientist (Behavioural Neuroscientists), Melton Secondary College, September 9 (am), 2013

The Brain, Sleep and Circadian Insomnias, Tutorial Year 11 & 12 group, Melton Secondary College, September 9 (pm), 2013

Webinar for MHPN (Mental Health Professional Network ) organised by myself: "Working together to better support a young woman struggling with Insomnia, depression & Anxiety. Panellists: Alex Bartle (General Practitioner, NZ), David Cunnington (Sleep Physician, Melbourne Sleep Centre), Stuart Armstrong (Sleep Specialist Psychologist, Melbourne), Shantha Rajaratnam, Moderator (Psychologist, Monash Uni).

National Psychology Week, Question and Answer Panel on Sleep, Deakin University, Burwood campus. Expert Panel: Stuart Armstrong, Helen Lindner, Elise Wald, November 2013,

Behavioural Management of the Insomnias, Vietnam Veterans Counselling Service (VVCS), Department of Veterans Affairs, Melbourne, 01.05.2013.

Behavioural Management of the Parasomnias, Focusing on Nightmares. Vietnam Veterans Counselling Service (VVCS), Department of Veterans Affairs, 30.10.2013.

Management of Sleep Disorders, 10 Biweekly Tutorials to Psychiatric Registrars and Psychologists, Post Trauma Victoria, ARMC, Repatriation Campus, 2013.

## **POSTGRADUATE SUPERVISION**

### **PhD: Psychology Dept, La Trobe University**

1981 Jenny Redman (jointly with K.T. Ng). Thesis topic: *Melatonin effects on mammalian circadian rhythms*. Degree awarded January 1990.

- 1983 Rolf Willig (jointly with G.J. Coleman). Thesis topic: *Learning and memory in Australian marsupials*. Degree awarded 1990
- 1982 Helen O'Reilly (jointly with G.J. Coleman). Thesis topic: *Circadian rhythms in Australian marsupials*. Degree awarded in 1985.
- 1983 Amanda Glock (jointly with K.T. Ng). Thesis topic: *Zinc deficiency and cognitive defects in rats*. Amanda had been infirm at various times of her candidature and eventually withdrew due to ill-health.
- 1985 Eli Thomas (jointly with R.V. Short - Monash University). Thesis topic: *Pineal gland involvement in circadian rhythms of female rats*. Eli was a Monash University, Physiology Department student but I was an official co-supervisor. Degree awarded February 1989.
- 1984 Dot Bruck (jointly with G.J. Coleman). Thesis topic: *Diet and human narcolepsy*. Degree awarded 1990.
- 1985 Gerard Kennedy (jointly with G.J. Coleman). Thesis topic: *Circadian rhythms in Australian marsupials*. Degree awarded in 1991.
- 1986 Debbie Graham (jointly with G. Singer). Thesis topic: *Negative air ion effects on human behaviour and physiology*. My influence was on the later empirical work, the interpretation of data, the writing and presentation of the thesis. Degree awarded in December 1988.
- 1991 Mark Stokes. Thesis topic: *Effect of single and multiple light pulses on rat PRC*. Degree awarded in 1997.

#### Associate Supervision

At La Trobe University there were a number of students whose PhD's I had varying degrees of supervisory interaction with but I was not the official supervisor. Examples are Elwood Walls, Ken Greenwood and John Clarke, David Luke (Melbourne University), etc.

#### **PhD: Brain Sciences Institute, Swinburne University of Technology.**

- 2002 Kathryn Ellis (jointly with P. Nathan). Thesis topic: *The dopaminergic system and human spatial working memory. A behavioural, electrophysiological and H<sub>2</sub><sup>15</sup>O PET metabolic flow investigation*. Degree awarded in 2003.
- 2002 Ivanka Juric (jointly with R. Silberstein, Mal Hopwood (Veteran's Psychiatry Dept, ARMC). Thesis topic: *Cortical functions in Post-traumatic Stress Disorder: a Steady State Probe Tomography (SSPT) study of working memory and Decision Making*.
- 2000 Andrew Kemp (Jointly with P. Nathan, R.Silberstein). Thesis topic: *SSPT technology and emotional processing in humans: A Neurophysiological and Psychopharmacological Investigation*. Degree awarded 2004.
- 200 Marcus Grey (Jointly with P. Nathan, R.Silberstein. Thesis topic: *Models of Human anxiety: an investigation into the psychophysiological, neuropharmacological and behavioural facets of anxious experience*. Degree awarded 2004
- 2002 Hong Wei Li (Jointly with R.Silberstein, E.Chieu (St Georges Hospital). Thesis topic: *Brain function in aging and Alzheimers disease: an electroencephalographic study*. Degree awarded 2004

#### **MASTER OF PSYCHOLOGY (La Trobe University)**

- 1990 G. Murray (jointly with D.Hay). *Seasonal Affective Disorders in Australia: A questionnaire survey*.

#### **MASTER OF MEDICINE (Melbourne University)**

- 1990 S. Suzuki, M.B. (jointly with L. Dennerstein, Key Centre for Women's Health in Society). Thesis topic: *Sleep disorders in the last trimester of pregnancy*.

1990 H. Ferguson, M.D. (jointly with L. Dennerstein). Thesis topic: *Bright light therapy and premenstrual syndrome (PMS). Thesis never completed.*

### **RESEARCH VISITORS**

1984-85 V.Cassone, (La Trobe University Post-Doctoral Fellowship)  
Department of Neurology, Health Sciences Centre, State University, New York.

1992-93 Prof.Li Jing Cai, Dept. of Physiology, Shengang College of Pharmacy, Peoples Republic of China.

### **INTERVARSITY-AGREEMENT**

I established an inter-institutional agreement between my department and the Institute of Medical Psychology, Ludwig-Maximilians-University of Munich, West Germany in order to facilitate collaboration on joint research programs in psychobiology in general and chronobiology in particular, at the post-doctoral level. The agreement was premised on no funding being provided by either institution but that both would prioritise our research endeavours when applying for grants for international research cooperation. Such grants become available from time to time in the Academy of Sciences, for example. However, the German university lawyers took nearly 3 years (!) to sign the agreement and eventually my collaborator, Dr Robyn Hudson left Munich so that the agreement faltered before it reached fruition.

## **MEMBERSHIP OF SCIENTIFIC SOCIETIES**

### **Present**

Australian Psychological Society (APS)  
Psychologists Registration Board Victoria  
European Pineal Society (life member).  
Australasian Sleep Association (ASA)  
Australian Society of Hypnosis (ASH )

### **Past**

Australian Society for Study of Animal Behaviour  
Australian Pineal Research Group  
Australian Neuroscience Society  
Sleep Research Society  
International Society of Chronobiology  
Society for Light Treatment and Biological Rhythms  
APS Transpersonal Psychology Interest Group

## **AWARDS**

2012- Received the Presidents Award for outstanding contribution to Sleep Education (as Chair of the Behavioural Management of Sleep Disorders subcommittee of the Education Committee) Australasian Sleep Association.

2013- Awarded formal recognition as a Founding Member of the Australasian Sleep Association.

## **REFEREEING FOR JOURNALS**

As an academic I regularly refereed scientific articles for a number of journals, including the following: Physiology and Behavior; Pharmacology, Biochemistry and Behavior; Neuroscience and Biobehavioral Reviews; Psychopharmacology; Australian Journal of Zoology; Wildlife Research (Australia); Australian Journal of Psychology; Journal of Comparative Physiology; Journal of Biological Rhythms; Biological Psychiatry; American Journal of Physiology; Biological Signals; Chronobiology International; Sleep; Sleep Research; Life Science; Journal of Clinical Endocrinology & Metabolism; Psychophysiology. I was appointed to the editorial board of the Journal of Pineal Research in January 1989 to 1993. I also refereed grant applications for ARC and less often for NH&MRC.

## **RESEARCH SUPPORT: GRANTS**

## 1. Federal Government

### *Australian Research Grants Committee (ARGC) 1981-1983*

Ng, K.T., S. Armstrong and G. Coleman  
"Rhythmicity in alcohol ingestion and metabolism in rats:  
effects on cognitive behaviour."

Amount received:	1981	-	\$12,500
	1982	-	\$14,660

### *Australian Research Grants Scheme (ARGS) 1984-1987*

Armstrong, S.  
"Circadian pacemakers in Australian marsupials".

Amount received:	1984	-	\$16,400
	1985	-	\$15,000
	1986	-	\$20,088

### *Australian Research Council (ARC) 1990-*

Armstrong, S. and J. Redman. "Melatonin, the pineal gland and  
synchronization of circadian rhythms".

Amount received:	1990	-	\$32,500
	1991	-	\$36,000
	1992	-	\$37,300

### *Australian Research Council (ARC) 1990-1991*

Armstrong, S. and J. Redman. "Anti-aging effects of melatonin".

Amount received:	1990	-	\$10,000
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### *Australian Research Council (ARC) 1993.*

Armstrong, S. and S. Scherer. "Measurement of sleep disorders  
in the elderly."

Amount requested:			\$14,550
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### *National Health and Medical Research Council (NH&MRC) (1989-1991)*

McIntyre, I.M., Burrows, G.D., Armstrong, S.M.  
"Melatonin hypersensitivity to light in bipolar affective  
disorders"

Amount received:	1989	-	\$39,376
	1990	-	\$41,575

### *National Health and Medical Research Council (NH&MRC) (1998-9)*

Stough, C, Woods, A, Armstrong, SM. "Investigation of mobile phone UHF frequency on human  
cognitive performance".

Amount received: \$50,000

### *CSIRO - La Trobe University Grants Committee 1989*

Armstrong, S.M., H. Tyndale-Biscoe and L. Hinds  
"Photoperiod induced changes in the Tammar Wallaby".

Amount received:	1989	-	\$10,000
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## 2. School Research Grants

### *Special Research Grant - 1980*

Circadian rhythms.

Amount received:	1980	-	\$4,500
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### *TEC Special Research Grant - 1983*

Circadian rhythms in Australian marsupials.

Amount received: 1983 - \$5,220

*CTEC Special Research Grant - 1984*

Investigation of the influence of melatonin on re-entrainment of rat activity rhythms.

Amount received: 1984 - \$1,419

*CTEC Special Research Grant - 1985*

Investigation of the influence of melatonin on re-entrainment of rat activity rhythms.

Amount received: 1985 - \$5,000

*CTEC Special Research Grant - 1986*

Use of salivary melatonin as an index of human melatonin rhythms and their response to light.

Amount received: 1986 - \$3,000

*SRG Special Research Grant - 1990*

Armstrong, S. "Seasonal Affective Disorder (SAD) in Australia".

Amount received: 1990 - \$4,000

### **3. Non-Government Research Grants**

*Muritoxin Products Aust. Pty. Ltd. - 1987; 1989*

"The influence of chemicals on rodent sleep-wake cycles".

Amount received: 1987 - \$20,000

Amount received: 1989 - \$7,000

*Institute de Recherches Internationales Servier, Paris, France - 1991*

Redman, J.R. and S.M. Armstrong

Chemical Synchronization of rodent sleep-wake cycles

Amount received: 1991 - \$5,000

*Australian Electricity Commission-1994-1995*

Wood, A. and S.M. Armstrong

Effect of electromagnetic fields on the human pineal gland.

Amount received: 1994- \$46,000

1995- \$57,00

*Eli Lilly Co., USA 1995-1996*

Armstrong, SM and R. Pierce

Does 1 mg melatonin administration induce sleepiness in humans?

Amount received: 1996 \$93,00

*Cephalon (USA) 2005*

,Reid JM & Armstrong, S M

Incidence of daytime sleepiness in Victorian workforce

Amount requested: \$ 326,000

Amount received: \$170,000 Phase 165

Bronowski Institute for Behavioural Neuroscience 2010-current

Funds the joint research published with Dr Greg Willis (Senior author)

### **4. Research Support: Inventions**

In 1984 with Professor R.V. Short of Monash University, Physiology Department patents were taken out in USA, Japan, Europe, Canada, U.K. for the use of melatonin to ameliorate jet lag. These patents were sold by Monash University to Circadian Technology Pty Ltd in 1986 (RVS senior author). "Method for minimizing disturbances in circadian rhythms of bodily performance and function".

Amount received: 1986 - \$7,000 to Dept. of Psychology out of \$19,000 to La Trobe University out of \$105,000 to Monash University from transfer of patent rights to a commercial company. Patent licensed to Eli Lilly the seventh largest pharmaceutical company in the world.

Amount received: 1999 -2000-\$184,000 royalties from some \$4.1 million awarded to Circadian Technologies.

## **SUMMARY OF INDUSTRIAL/ COMMERCIAL EXPERIENCE**

### **A/ Brain Sciences Institute (BSI) (2001-2003)**

Invited by Professor Richard Silberstein, ex-Director of the BSI to work 50% consultant and 50% academic at the BSI. Consultant duties were to oversee a project for possible commercialisation of the Steady State Probe Topography (SSPT) technique developed at the BSI. This involved 'proof of concept' studies/clinical trials to use SSPT for predicting efficacy of antidepressant medication within two to 7 days of first administration rather than having to wait up to some four weeks (as is the current situation). Duties were to design the studies, gain ethics committee approval, find suitable sites and collaborators, work out budgets, submissions and presentations to potential investors, identify potential staff and eventually recruit them, oversee all steps of the program from conducting the studies to analysis of data to writing reports and publications. These studies are to be carried out at The Melbourne Clinic, Richmond in collaboration with Prof Isaac Schweitzer, and possibly in stage 2 at the Brunswick Community Health Centre in collaboration with Dr Wendy Vanselow.

A second series of 'proof of concept' studies using SSPT to screen for efficacy of new cognitive enhancers (particularly the cholinergic system) for Dementia of the Alzheimer's Type (DAT) came under my jurisdiction and I then devoted myself full time to the consultancy. I introduced a third series to program: using SSPT for early diagnosis of DAT and assessment of anticholinesterase efficacy in Mild Cognitive Impairment (MCI). These studies were to be carried out at the Aged Persons Mental Health Service, St George's Health Service, Kew, in collaboration with Prof Edmond Chiu.

Funding of \$2.1 million (Aus) was being secured from overseas investors but collapsed after protracted university negotiations and then premature death of chief investor.

### **B/ Eli Lilly, Indianapolis, USA (1995-1999)**

Recruited by Dr Steve Paul (then Vice President Research Division and Discovery) to act as external consultant for Lilly's first foray into chronobiology and sleep, utilizing the melatonin analog LY156735. Duties included:

Liaising with personnel at all stages and aspects of drug development, eg. organic chemists, basic scientists, company statisticians, marketing and sales, marketing modellers, commercial tablet/pill production, pre-clinical animal toxicology safety, Phase 1 hospital physicians (safety, dosing range, bioavailability, pharmacokinetics etc.), Phase 2 clinical trial physicians.

Liaison was by tele-conferencing, email and overseas visits

Designed and conducted a melatonin trial for hypnotic efficacy (at Austin-Repatriation Hospital, Heidelberg) as a preliminary to LY156735

Designed and wrote Phase2 protocols for jet lag, DSPS, etc., drew up budgets

Designed and wrote Phase 2 protocols for non-circadian sleep disorders eg. sleep problems in the elderly and psychophysiological insomnia

Screened potential collaborative scientists

Organized and supervised site visits to potential Phase 2 and early Phase 3 trials eg. White Plains, NY; Portland, Oregon; Cincinnati, Ohio; San Diego, California; DDR in Cologne, Germany; Basel, Switzerland.

Kept the project group up to date on the state of the relevant fields from the literature and attending international conferences

Worked with company patent attorneys on defence of Lilly patents and evaluation/devaluation of rival patents.

Consultancy ended when Lilly decided to terminate the project and outsource the sleep/hypnotic aspects of Phase 2 and Phase 3 to a smaller company

### **C/ Servier International, Paris, France (1990-1995)**

Approached by Servier to act as a consultant on scientific and clinical efficacy of their melatonin analog S20098 (later to become jet-lag/shiftwork pill Agomelatine; later to become the antidepressant Valdoxan in humans).

Experience:

Conducted the first animal trial showing chronobiotic (drugs that shift rhythms) evidence for the analog

Designed the first international multi-centre human Phase 2 trials for S20098 and wrote protocols for testing the efficacy for treating delayed sleep phase syndrome (DSPS)

Advised on suitability of potential participants and locations for Phase 2 trials

Presented findings on behalf of Servier International to medicinal chemists in Paris, France and New York, USA

Attend meetings at Servier Laboratories, Hawthorn, Vic.

Consultancy terminated when I took up exclusive consultancy for Eli Lilly.

### **D/ Bronowski Institute for Behavioural Neuroscience, Coliban Medical Centre, Victoria (1994-present)**

Involved in the patenting and commercialization of two separate programs both initiated by G.L. Willis, Director of the Institute. Details of the work not given due to commercial sensitivity.

1] Patenting: G L Willis and S M Armstrong, *Method for the treatment of neurological or neuropsychiatric disorders*, provisional patent 1996

Experience:

Designing, analyzing relevant animal experiments

Drafting the patent

Meetings with patent attorneys

Initiated discussion with international pharmaceutical companies for financial support and licensing agreements

Patent eventually licensed to Neurim Pharmaceuticals, Israel

2] Patent: GL Willis, *Animal Bedding Material*, 1994

Experience:

Search for and contacting national and international commercial partners, financiers, sponsors to fund further research

Meetings with state forestry industry, CSIRO Divisions, environmental management companies, recycling and resource companies

Communication with CCA treatment companies in UK and New Zealand eg. Koppers-Hickson

Inventing new and novel uses for future applications

Designing experiments to test these hypotheses

#### **E/ Brain Behaviour Research Institute (BBRI), La Trobe University, Victoria (1985-1988)**

The BBRI at La Trobe University was formed to facilitate intra- and inter-university research collaboration. A company was formed within the auspices of the BBRI to commercialize certain products and attract venture capital in the order of \$2,000,000 (Aus). The principal projects were:

Isolation, characterization and commercialization of histamine receptor (R.Warlow)

Neuroimmunology and animal models of autoimmune diseases (C. Bernard)

Search for jetlag pill amongst melatonin and 5-HT analogs using animal models (S. Armstrong)

Animal models of memory and Alzheimer's disease (K.T.Ng)

Dealing with industrial stress (G.Singer)

Experience:

Reporting to the BBRI board

Responsible to the BBRI board for advertising and disseminating of BBRI aims and findings

Setting up collaborative programs with overseas institutions.

Hosting monthly VIP lunches for selected guests from industry, commerce and governments; introduction of guests to BBRI staff and tour of facilities

Preparations for stock market float, writing prospectus etc.

Presentations in Australian capital cities organized by stockbrokers to interested future investors/shareholders eg. financial institutions, fund managers, venture capitalists

The collapse of the stock market in late 1987, six weeks before we were to float, prematurely terminated to this venture. The BBRI, as an entity, continued to exist until the early 1990's.

#### **F/ Circadian Technologies, Melbourne, Victoria (1985-2000)**

Unofficial, ad hoc consulting with the managing director:

Advice on defence of the patent, particularly but not exclusively on the distinction of use of melatonin for treatment of circadian sleep disorders versus hypnotic action in psychophysiological insomnia

Updating on new findings on melatonin from the literature and scientific meetings

Updating on new findings on jetlag and other circadian disorders from the literature and scientific meetings

Conducting further animal experiments to test a peptide ( for potential chronobiotic properties.

#### **G/ Monash University, Melbourne, Victoria (1983-1986)**

Patenting: R.V Short, FRS and SM Armstrong, *A method for minimizing disturbances in circadian rhythms of bodily function and performance*, July 15, 1986 USA. Followed by patents filed and granted in Canada, Japan, Europe and Australia.

Experience:

Designing and conducting human experiments to include in the full patent after acceptance of the provisional patent (198x)

Drafting the patent with RVS

Meetings with patent attorneys for subsequent versions of the patent

Meetings with Monash University Patent Committee regarding strategies for licensing the patent to international pharmaceutical companies [eg. Organon].

Meetings with La Trobe University Patent Committee (regarding the above)

Patent eventually licensed to Circadian Pharmaceuticals (later Technologies) Melbourne, Victoria.

## **SUMMARY OF CLINICAL HEALTH EXPERIENCE**

### **A/ Summary of Work in Clinical-Health Settings**

1. 1989-1990. Melbourne Clinic, Richmond (1 half day session /week). Treatment of SAD, Major depression, panic disorders, circadian insomnias DSPS and ASPS. Supervisor Dr Peter Marriot (consultant psychiatrist).
2. 1991-1992. Key Centre for Women's Health & Mercy Hospital (ad hoc). Treatment of PMS & post partum depression. Supervisor- Professor Lorraine Dennerstein (consultant psychiatrist).
3. 1993-97. Honorary Senior Clinical Psychologist, Department of Respiratory & Sleep Medicine, Austin Health, Melbourne. I established the Insomnia Clinic in Out Patients, Heidelberg Repatriation Hospital, worked one session (4 hours per week) for 48 weeks per year. I recruited Dr Gerard Kennedy and later a third psychologist to cope with the workload and Dr Kennedy continued to practice when I left.
4. 1995-1997. Department of Respiratory & Sleep Medicine, Austin Health. I ran a private clinic (Behavioural Management of Sleep Disorders) in the Bowen Centre, one session per week.
5. Current. Epworth Sleep Centre, Epworth Medical Centre, Richmond then recently East Melbourne from 2009 to 2010, Private Practice (Behavioural Management of Sleep Disorders). I have worked approximately 16 hours (4 sessions) per week for 48 weeks per year.
6. 2005- Current. Director of VPU Sleep Clinic, Veterans Psychiatry Unit, Heidelberg Repatriation Hospital, West Heidelberg, Vic 3081, Australia
7. 1996- current. Ad hoc involvement Bronowski Institute in treating Parkinson's Disease patients with sleep , mood and anxiety disorders.

### **B/ Teaching Clinical Health**

1. School of Psychology, Psychiatry & Psychological Medicine, Monash Uni. 2006-2010 inclusive-. Behavioural Management of Sleep Disorders Psychopathology (1.5hr) D.Psych. Yr 1. Theories & Techniques of Intervention.(3h) D.Psych.Yr 2.
2. APS 1 day workshop (in conjunction with other psychologists on the BMSD committee. "Treating Insomnia: What Psychologists Need to Know" see pp.16-17.
3. A series of 1 day or 2 day workshops treating the Insomnias and Parasomnias in Trauma (particularly PTSD) given with Donna Zander in various Victorian settings (mainly hospital) See pp.16-17.

## **ACADEMIC COMMITTEES**

At La Trobe University I served on university, department and external committees listed below. This range of committee work gave me a good, broad grasp of a number of aspects of University government and procedures, as well as opportunities for input into various areas of policy making. Membership of the Board of Studies of the School of Behavioural Science has been particularly useful in this respect, as has been the role I played in the establishment of the highly successful Brain- Behaviour Research Institute and in its subsequent activities.

Of particular importance are the committees related to research.

I served for several years on the Departmental Ph.D. Committee and I have also served on the University Ph.D. Committee. These experiences gave me valuable insight into successful management of higher degree students and I feel that I became a better supervisor because of the experience gained on these committees.

I was the external representative on the research committee of the Department of Psychiatry (Melbourne University) at the Austin Hospital and the Professorial Unit at Larundel Psychiatric Hospital. This committee met once a month to decide on proposals submitted for research work to be carried out at the then



Larundel and other institutions. This experience gave me considerable insight into the workings of other varsity research committees.

### **La Trobe University**

#### **University**

1986,87	Doctor of Philosophy Committee
1983,84,86,87	Board of Studies, School of Behavioural Sciences
1983-91	Animal House and Glass House Facilities Advisory Committee (alternative to K.D. Maerz)
1989-92	Committee of Outside Studies Programs
1990,91,92	Promotions Committee (Science)
1990,91	Ad-hoc Committee for joint Repatriation and General Hospital (Heidelberg) - La Trobe University Clinical Research Institute
1988-91	Executive Committee - Brain Behaviour Research Institute
1992-94	Academic Board

#### **Department**

1985,86	Postgraduate Committee
1990	Tutor Promotions Committee
1985,86	Academic Progress Committee
Most years	Adviser of Studies
1990,91,92	Chief Examiner Psychobiology I
1981,82,86,87	Chief Examiner Psychology II

#### **External Committees**

I have been on the organising committee for several conferences, such as the 1982 Australian Neuroscience Society Meeting, APS when held in Melbourne in the late 1970's, International Conference of Food and Water Regulation at La Trobe University in about the same decade etc.

1989-92            Research Committee, Department of Psychiatry, Melbourne University, Austin Hospital.

1995- 2013        Board of the Bronowski Institute, Coliban Medical Centre, Victoria

2000-2001        Brain Sciences Institute, Swinburne Uni. Dec- April. Chair of search committee and then selection committee for position of Associate Professor/ Professor in Psychopharmacology of Cognition at BSI.

2000              Brain Sciences Institute, Swinburne Uni. Nov-Dec. Chair of selection committee for position of Project Consultant at BSI

2009- 2013      Chair, Behavioural Management of Sleep Disorders, Sub-Committee (of Education Committee ) of Australasian Sleep Association.

In late 2008 I drafted the curriculum for APAC submission for the teaching of sleep, sleep disorders and their treatment at: (1) undergraduate psychology, (2) postgraduate psychology at Masters and D.Psych level at all Australian universities and (3) continuing Professional Development for currently practicing psychologists in Australia.

President's Award 2012 (Dec) for significant & sustained contribution to raising awareness of sleep health & sleep science to other professional groups.

### **FURTHER CLINICAL EDUCATION & TRAINING**

I attended the following courses to further my clinical skills.

#### **INTRODUCTION TO CLINICAL PSYCHOLOGY TRAINING PROGRAM**

Austin Hospital Clinical Psychology Department

(Director: Dr Jeanette Milgrom. Head: Dr. David List. Supervisor: Dr Carmen Stegar).

(1993 March- December (40x4hr) + (Additional Supervision May to September 1993 (2hr bi-weekly))

### **Assessment Training & Additional Supervised Training**

Week 1: Observational Skills; Week 4: Questioning Techniques; Week 11: Behavioural Assessment (Initial Interview); Week 12: Behavioural Assessment (Data Collection & Monitoring); Week 36: Projective Tests (Rorschach); Week 37: Projective Tests (TAT); Week 38: Non-projective Tests (MMPI); Week 39: Non-projective Tests (CPI)

The total in class time spent on these topics was 32 hours and external supervised time spent on these topics was 16 hours. Additional ongoing self-directed training in excess of 48 hours has been undertaken to attain competency in assessment using various psychometric instruments including for example: (1) Wechsler Adult IQ Scale (WAIS-III); (2) Wechsler Intelligence Scale for Children (WISC-3); (3) Beck Depression Inventory (BDI); (4) State Trait Anxiety Inventory (STAI); and (5) other instruments such as the Peabody Picture Vocabulary Test (third, ed., Form A and B), Myers Briggs Type Indicator (MBTI), ACER (AQ and AL), The John Holland and Self-Directed Search (SDS), NEO Personality Inventory revised, Personality Inventory for Children (PIC), The Holmes-Rahe Social Readjustment Scale, Profile of Mood States (POMS) and others.

### **Counselling Training & Additional Supervised Training**

Week 2: Attending Behaviour; Week 3: Self-Awareness; Week 5: Reflection of Feelings; Week 6: Reflection of Content; Week 8: Reframing & Interpretation; Week 9: Confrontation, Week 10: Integrating Communication & Counselling Skills; Week 27: Guided Imagery/Hypnosis.

The total in class time spent on these topics was 28 hours and external supervised time spent on these topics was 14 hours.

### **Psychotherapy Training & Additional Supervised Training**

Week 13: Behavioural Interventions & Techniques (1); Week 14: Behavioural Interventions & Techniques (2); Week 15: Introduction to Cognitive Behavioural Therapy Techniques; Week 16: Rational Emotive Therapy/Cognitive Behavioural Therapy (1); Week 17: Rational Emotive Therapy/Cognitive Behavioural Therapy (2); Week 18: Rational Emotive Therapy/Cognitive Behavioural Therapy (3); Week 24: Anger; Week 25: Self-Esteem (1); Week 26: Self-Esteem (2); Week 28: Crisis Intervention; Week 29: Assertiveness Training; Week 30: Pain Management; Week 33: Interpersonal Conflict Resolution

The total in class time spent on these topics was 52 hours and external supervised time spent on these topics was 26 hours. Additional ongoing self-directed training in excess of 48 hours has been undertaken to gain an extensive knowledge of psychopharmacology and I have taught courses at tertiary level in psychobiology that included psychopharmacology.

### **Mental Health Issues & Additional Supervised Training**

Week 19: Report Writing (1); Week 20: Report Writing (2); Week 7: Information Giving

The total in class time spent on these topics was 12 hours and external supervised time spent on these topics was 6 hours. Additional self-directed training in excess of 24 hours has been carried out to attain a high level of competency in mental health issues including legal, ethical, professional and consumer/carer matters.

### **Psychopathology Training & Additional Supervised Training**

Week 21: Depressive Disorders; Week 22: Anxiety Disorders; Week 23: Fears & Phobias; Week 31: Sexual Dysfunctions 1; Week 32: Sexual Dysfunctions 2; Week 34: DSM-III-R; Week 35: DSM-III-R

The total in class time spent on these topics was 28 hours and external supervised time spent on these topics was 14 hours. Additional self-directed training in excess of 48 hours followed this original training to update on DSM-IV, DSM-IV-TR and ICD-10. This training resulted in a thorough knowledge of the following: (1) Disorders usually first diagnosed in infancy, childhood or adolescence; (2) Delirium, dementia and amnesic and other cognitive disorders; (3) Mental disorders due to a general medical condition; (4) Substance-related disorders; (5) Schizophrenia and other psychotic disorders; (6) Mood disorders; (7) Anxiety disorders; (8) Somatoform disorders; (9) Factitious disorders; (10) Dissociative disorders; (11) Sexual and gender identity disorders; (12) Eating disorders; (13) Sleep disorders; (14) Impulse-control disorders; (15) Adjustment disorders; (16) Personality disorders; and (17) Other clinical conditions.

## **CLINICAL NEUROPSYCHOLOGY**

I gained my knowledge of clinical neuropsychology from auditing much of the Masters course at Melbourne University and attending the weekly (Tue afternoon) case studies run by Dr Kevin Walsh at the Austin Hospital for several years.

Previously, I had been allowed to audit the relevant parts of the Diploma of Psychological Medicine (DPM) at Melbourne University, primarily to learn human brain anatomy. I audited this course twice (Prof Rae, Prof Bradley) and later again by Dr Geoff Kenny (as part of Clinical Neuropsychology).

In addition over a two year period I attended regularly the early morning post-mortems at Mont Park Psychiatric Hospital and the Heidelberg Repatriation Hospital where attempts to reconcile diagnosis of neuropsychiatric disorder with gross brain changes were made by pathologists, psychiatrists and occasionally neurosurgeons.

## **Behavioural Management of Sleep Disorders (Professional Development)**

Over the years I have continued to update my skills in treating the insomnias and parasomnias by attending courses whenever possible. Examples of Sleep Disorder Workshops & Seminars attended for Professional Development are: Introduction to Insomnia and its Treatment. (Half day seminar- 6 Presenters). Review of course Objectives and Schedules; Essentials of an Insomnia Consultation; Evaluation Tools & Techniques; Specific Treatment for Specific Diagnoses; Why Insomnia Treatment Often Fails; Case Presentation and Discussion. June 1993. 7<sup>th</sup> Annual American Professional Sleep Society, Los Angeles, USA.

Treatment of Sleep Disruption in Psychiatric Disease. (Half day seminar- 7 Presenters). Introduction; Depression & use of Antidepressant Medications; Treatment of Sleep Disturbances in Psychotic Disorders; Effects of Benzodiazapine on Sleep and the Experience of Sleep; Treatment of Sleep Disturbance in Alcohol Abuse; Early REM Dreams in the Depressed; The Therapeutic Environment and Behavioural treatment of Insomnia with concurrent Psychiatric conditions; Resetting the Body Clock: Treatment of Chronobiological Disorders. June 1993. 7<sup>th</sup> Annual American Professional Sleep Society, Los Angeles, USA.

Practical Management of Insomnia in Special Populations. (Half day seminar- 5 Presenters) Consulting for Insomnia in a Sleep Disorders Clinic; Treatment of Insomnia Patients in General Medical Practice; Treatment of Insomnia in Psychiatric Disorders; Treatment of Insomnia in Elderly Patients; Clinical Management of Insomnia in Hypnotic-Dependent Patients; Q&A. 1996. June 1993. 10<sup>th</sup> Annual American Professional Sleep Society, Washington, USA.

Sleep in Neurodegenerative Diseases. (Half day seminar- 5 Presenters). Introduction; Sleep in Alzheimer's Disease and Multi-infarct Dementia; Sleep in Extrapryamidal Disease; Sleep in Neuromuscular Diseases; Fatal Familial Insomnia; Case presentation & Panel Discussion. 1996. June 1993. 10<sup>th</sup> Annual American Professional Sleep Society, Washington, USA.

Dreams, Neurological Disease & Basic Research: A Need for Dialog. (Half Day seminar- 5 Presenters).

Introduction, Neurophysiology of Dreams: Conundrums, Dreams & Hallucinations, Epic Dreaming, Can Animals help?, Q&A-Course faculty. 1997. June 1997. 11<sup>th</sup> Annual American Professional Sleep Society, Washington, USA. Cognitive Behavioural Treatment of Insomnia: Self-Monitoring & Homework Assignments. By Gila Hertz. NY, USA. 1979.

Cognitive Therapy for Insomnia. Charles Morin. Montréal, Canada. January 2005?

## **REFEREES**

### **SLEEP CLINICS**

1. Professor Matthew T. Naughton, MD FRACP. Head of General Respiratory & Sleep Medicine, Alfred Hospital, PO Box 315 Prahran, VIC 3181 Australia Ph +613 9076 3770; Email [M.Naughton@alfred.org.au](mailto:M.Naughton@alfred.org.au)
2. Dr Darren Mansfield, Director Epworth Sleep Centre, 23 Clarendon St, East Melbourne, Vic 3002. Ph: 03 9417 5113; Mobile: 0408205737; Email: [ep.sleep@bigpond.net.au](mailto:ep.sleep@bigpond.net.au)

### **SLEEP & CHRONOBIOLOGY**

3. Professor Alfred J. Lewy, Sleep and Mood Disorders Laboratory, Dept. of Psychiatry, Ophthalmology & Pharmacology, Oregon Health Sciences University, Portland, Oregon, 97201, USA. Ph: 0011-1-503-494 7746; Fax: 0011-1-503-659 7242 (home); Email: [lewy@ohsu.edu](mailto:lewy@ohsu.edu)
4. Professor Anna Wirz-Justice, Centre for Chronobiology, Psychiatric University Clinics, Basel, Switzerland Ph: 41(0) 61 325 5473; fax: 41(0) 325 5556; Email: [Anna.Wirz-Justice@unibas.ch](mailto:Anna.Wirz-Justice@unibas.ch)

### **BEHAVIOURAL NEUROSCIENCE**

5. Professor Richard Silberstein, Brain Sciences Institute, Swinburne University of Technology, 400 Burwood Rd, Hawthorn, 3122 Vic. Ph: 03 9214 8273; Email: [rbs@bsi.swin.edu.au](mailto:rbs@bsi.swin.edu.au)

### **PSYCHOLOGY (in general)**

6. Professor Simon Crowe, Department of Psychology, La Trobe University, Bundoora, Victoria 3086 Ph: 03 9479 1380; Email: [s.crowe@latrobe.edu.au](mailto:s.crowe@latrobe.edu.au)