

Curriculum Vitae (2014.10.2)

Name

Given name Ken-ichi
Family name Honma

Date of Birth

November 10, 1946

Place of Birth

Sapporo City, Hokkaido, Japan

Nationality

Japanese

Family state

Married, one daughter

Educational Qualification

Doctor of Medicine June, 1971

Ph. Degree of Medicine March 1977

Education

1965.4-1971.3 Hokkaido University School of Medicine (Medical Doctor)

1973.4-1977.3 Postgraduate Course of Physiological Sciences, Hokkaido University Graduate
School of Medicine (Ph.D. for Medicine)

Profession

1971.4-1973.3 Clinical Training at Hokkaido University School of Medicine, Clinical Hospital
(Psychiatry)

1977.4-1980.1 Assistant Professor, Hokkaido University School of Medicine (Physiology)

(1978.5-1979.12 Visiting Fellow at Max-Planck Institute for Biophysical Chemistry at
Goettingen, Germany)

1980.2-1982.4 Lecture, Hokkaido University School of Medicine (Physiology)

1982.5-1991.12 Associate Professor, Hokkaido University School of Medicine (Physiology)

1992.1-2000.3 Professor, Hokkaido University School of Medicine (Physiology)

2000.4-2010.3 Professor, Hokkaido University Graduate School of Medicine (Physiology)

2000.4-2020.3 Chairman, Department of Physiology

2005.4- 2009.3 Dean, Hokkaido University Graduate School of Medicine and School of

- Medicine, Education and Research Council member of Hokkaido University
- 2009.4-2012.3 Director, Research and Education Center for Brain Science, Hokkaido University
- 2010.4-2012.3 Professor Emeritus and Specially Appointed Professor, Hokkaido University
- 2012.4- Visiting Professor of Hokkaido University
Specially Appointed Professor of Shinsyu University (Matsumoto)
Visiting Professor of Kyoto Prefectural University (Kyoto)
- Board Director of the Kei-Ai Medical Incorporated Association, Sapporo Hanazono Hospital
- 2012.12- President of,Aschoff and Honma Memorial Foundation (General Incorporated Foundation)

Membership of Academic Society

Society for Research on Biological Rhythm

2000-2004 Associate Editor of JBR

International Society for Chronobiology

International Union of Physiological Societies

2000-2006 Section Leader for Chronophysiology

World Federation of Societies for Chronobiology

2002-2011 President

Japanese Society of Physiology

1992-2004 Council Member

Japanese Society for Chronobiology

1994- Council Member

2005-2011 President

Japanese Society for Sleep Research

1992-2013 Council Member

2007-2013 Vice President

2007- Editor in Chief of SBR (Sleep and Biological Rhythms)

2006-2012 Secretary General of Asian Sleep Research Society

2012- Vice President of Asian Sleep Research Society

Japanese Society for Neuroscience

2013- Chair of the Publicity Committee of the Federation of Neuroscience Related Societies.

Japanese Society for Neuroendocrinology

1992-1996 Council Member

2010- Honorable Member of Council

Japanese Society for Biometeorology

1992-2013 Council Member

Japanese Society for Endocrinology

2010- Honorable Member of Council

Publications

A. Original Paper in English (since 2001)

1. M.Namihira, S.Honma, S.Masubuchi, K.Ishizaki, H.Abe and K.Honma. Circadian pattern, light responsiveness and localization of clock gene, rPer1 and rPer2, expressions in the rat retina. *NeuroReport*, 12:471-475 (2001)
2. H.Abe, S.Honma, M.Namihira, S.Masubuchi, M.Ikeda, S.Ebihara and K.Honma. Clock gene expressions in the suprachiasmatic nucleus and other areas of the brain during rhythm splitting in CS mice. *Mol. Brain Res.*, 87:92-99 (2001)
3. T.Suzuki, A.Ishikawa, T.Yoshimura, T.Namikawa, H.Abe, S.Honma, K.Honma and S.Ebihara. Quantitative trait locus analysis of abnormal circadian period in CS mice. *Mammalian Genome*, 12:272-277 (2001)
4. M.Tsunoda, T.Endo, S.Hashimoto, S.Honma and K.Honma. Effects of light and sleep stages on heart rate variability in humans. *J. Clin. Neurosci.*, 55: 285-286 (2001)
5. T.Miyazaki, S.Hashimoto, S.Masubuchi, S.Honma and K.Honma. Phase-advance shifts of human circadian pacemaker are accelerated by daytime physical exercise. *Am. J. Physiol.*, 281:R197-R205 (2001)
6. T.Yoshihara, Y.Matsumoto, Y.Katsuno, S.Honma, H.Oguchi and K.Honma. Liquid meal attenuates meal anticipation in rat adrenocortical activity. *Physiol. Behav.*, 74:133-137 (2001)
7. W.Nakamura, S.Honma, T.Shirakara and K.Honma. Regional pacemakers composed of multiple oscillator neurons in the rat suprachiasmatic nucleus. *Eur. J. Neurosci.*, 14:666-674 (2001)
8. H.Abe, S.Honma, M.Namihira, S.Masubuchi and K.Honma. Behavioral rhythm splitting in the SC mouse is related to clock gene expressions outside the suprachiasmatic nucleus. *Eur. J. Neurosci.*, 14:1121-1128 (2001)
9. S.Masubuchi, S.Honma, H.Abe, W.Nakamura and K.Honma. Circadian activity rhythm in methamphetamine-treated Clock mutant mice. *Eur. J. Neurosci.*, 14:1177-1180 (2001)
10. W.Nakamura, S.Honma, T.Shirakawa and K.Honma. Clock mutation lengthens the circadian period without damping rhythms in individual SCN neurons. *Nature Neurosci.*, 5:399-400 (2002)
11. H.Ohta, S.Honma and K.Honma. Effects of nursing mothers on rPer1 and rPer2 circadian expressions in the neonatal rat suprachiasmatic nuclei vary with developmental stage. *Eur. J. Neurosci.*, 15:1953-1960 (2002)
12. S.Honma, T.Kawamoto, Y.Takagi, K.Fujimoto, M.Noshiro, Y.Kato and K.Honma. Dec1 and Dec2 are regulators of the mammalian molecular clock. *Nature*, 419: 841-844 (2002)
13. M.Nakao, K.Yamamoto, K.Honma, S.Hashimoto, S.Honma, N.Katayama and M.Yamamoto. A phase-dynamic model of human circadian rhythms. *J. Biol. Rhythm*, 17:476-489 (2002)
14. H.Ohta, S.Honma, H.Abe and K.Honma. Periodic absence of nursing mothers phase-shifts circadian rhythms of clock genes in the suprachiasmatic nucleus of rat pups. *Eup J Neurosci.*, 17:1628-1634 (2003)

15. K.Ishizaki, S.Honma, Y.Katsuno, H.Abe, S.Masubuchi, M.Namihira and K.Honma. Gene expression of neuropeptide Y in the nucleus of the solitary tract is activated in rats under restricted daily feeding but not under 48h food deprivation. *Eur J Neurosci.*, 17:2097-2105 (2003)
16. T.Kawamoto, M.Noshiro, F.Sato, K.Maemura, N.Takeda, R.Nagai, T.Iwata, K.Fujimoto, M.Furukawa, K.Miyazaki, S.Honma, K.Honma and Y.Kato. A novel autofeedback loop of Dec1 transcription involved in circadian rhythm regulation. *BBRC* 313:117-124 (2004)
17. S.Hashimoto, K.Nakamura, S.Honma and K.Honma. Non-photoc entrainment of human rest-activity cycle independent of circadian pacemaker. *Sleep Biol. Rhythms*, 2:29-36 (2004)
18. M.Butler, S.Honma, T.Fukumoto, T.Kawamoto, K.Fujimoto, M.Noshiro, Y.Kato and K.Honma. Dec1 and Dec2 expression is disrupted in the suprachiasmatic nuclei of clock mutant mice. *J Biol Rhythms*, 19:126-134 (2004)
19. H.Abe, S.Honma, H.Ohtsu and K.Honma. Circadian rhythms in behavior and clock gene expressions in the brain of mice lacking histidine decarboxylase. *Mol. Brain Res.*, 124:178-187 (2004)
20. S.Honma, W.Nakamura, T.Shirakawa and K.Honma. Diversity in the circadian periods of single neurons of the rat suprachiasmatic nucleus depends on nuclear structure and intrinsic period. *Neurosci. Lett.*, 358:173-176 (2004)
21. M.Noshiro, T.Kawamoto, M.Furukawa, K.Fujimoto, Y.Yoshida, E.Sasabe, S.Tsutsumi, T.Hamada, S.Honma, K.Honma and Y.Kato. Rhythmic expression of DEC1 and DEC2 in peripheral tissues: DEC2 is a potent suppressor for hepatic cytochrome P450s opposing DBP. *Gene to Cells* 9:317-329 (2004)
22. Y.Nakajima, M.Ikeda, T.Kimura, S.Honma, Y.Ohmiya and K.Honma. Bidirectional role of orphan nuclear receptor ROR α in clock gene transcriptions demonstrated by a novel reporter assay system. *FEBS Letter* 565:122-126 (2004)
23. H.R.Ueda, W.Chen, Y.Minami, S.Honma, K.Honma, M.Iino and S.Hashimoto. Molecular-timetable methods for detection of body time and rhythm disorders from Single-time-point genome-wide expression profiles. *PNAS* 101:11227-11232 (2004)
24. H.Hamaguchi, K.Fujimoto, T.Kawamoto, M.Noshiro, K.Maemura, N.Takeda, R.Gaya, M.Furukawa, S.Honma, K.Honma, H.Kurihara and Y.Kato. Expression of the gene for Dec2, a basic helix-loop-helix transcription factor, is regulated by a molecular clock system. *Biochem. J.*, 282:43-50 (2004)
25. M.Nakao, K.Yamamoto, K.Honma, S.Hashimoto, S.Honma, N.Katayama and M.Yamamoto. Modeling interactions between photic and nonphotoc entrainment mechanisms in transmeridian flights. *Biol. Cybern.*, 91:138-147 (2004)
26. F.Sato, T.Kawamoto, K.Fujimoto, M.Noshiro, K.Honda, S.Honma, K.Honma and Y.Kato. Functional analysis of the basic helix-loop-helix transcription factor DEC1 in circadian regulation. *Eur. J. Biochem.* 271:4409-4419 (2004)
27. T.Yoshihara, Y.Otsuki, A.Yamazaki, S.Honma, Y.Yamazaki and K.Honma. Maternal deprivation in neonatal rats alters the expression of circadian system under light-dark cycles

- and restricted daily feeding in adults. *Physiol. Behav.* 85:646-654(2005)
28. A.Yamazaki, Y.Ohtuski, T.Yoshihara, S.Honma and K.Honma: Maternal deprivation in neonatal rats of different conditions affects growth rate, circadian clock and stress responsiveness differentially. *Physiol. Behav.*, 86:136-144 (2005)
 29. M.Noshiro, M.Furukawa, S.Honma, T.Kawamoto, T.Hamada, K.Honma and Y.Kato. Tissue specific disruption of rhythmic expression of *Dec1* and *Dec2* in *Clock* mutant mice. *J.Biol. Rhythms.* 20:404-418 (2005)
 30. M.Furukawa, T.Kawamoto, M.Noshiro, K.Honda, M.Sakai, K.Fujimoto, S.Honma, K.Honma, T.Hamada and Y.Kato. Clock gene expression in the submandibular glands. *J Dental Research* 84:1193-1197 (2005)
 31. Nishide,S., Honma,S., Nakajima,Y., Ikeda, M., Baba,K., Ohmiya,Y. and Honma. K. New reporter system for *Per1* and *Bmal1* expressions revealed self-sustained circadian rhythms in peripheral tissues. *Genes to Cells*11:1173-82 (2006)
 32. Kawamoto,T., M.Noshiro, M.Furukawa, K.K.Honda, A.Nakashima, T.Ueshima, E.Usui, Y.Katsura, K.Fujimoto, S.Honma, K.Honma, T.Hamasa and Y.Kato. Effects of fasting and re-feeding on the expression of *Dec1*, *Per1*, and other clock-related genes. *J.Biochem. (Tokyo)*, 140:401-408 (2006).
 33. Takasu, N., Hashimoto, S., Yamanaka, Y., Yamazaki, A., Honma, S., and Honma, K. Repeated exposures to daytime bright light increase nocturnal melatonin rise and keep the circadian phase in young subjects under fixed sleep schedule. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 291:R1799-R1807 (2006).
 34. Yamanaka, Y., K.Honma, S.Hashimoto, N.Takatsu, T.Miyazaki and S.Honma. Effects of physical exercise on human circadian rhythms. *Sleep Biol. Rhythms* 4:199-206 (2006)
 35. Abe,H., Honma,S., and Honma,K. Daily restricted feeding resets the circadian clock in the suprachiasmatic nucleus of CS mice. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 292:R607-R615 (2007)
 36. Toki,S., Morinobu,S. Imanaka,A. Yamamoto,S. Yamawaki,S. and Honma,K. Importance of early lighting conditions in maternal care by dam as well as anxiety and memory later in life of offspring. *Eur J Neurosci* 25:815-829 (2007).
 37. Masubuchi, S., S.Honma, H.Abe, M.Namihira and K.Honma. Methamphetamine induces circadian oscillation in the brain outside the suprachiasmatic nucleus in rats. *Sleep and Biol Rhythm*, 5:132-140 (2007)
 38. Inagaki,N., S.Honma, D.Ono, Y.Tanahashi and K.Honma. Separate oscillating cell groups in mouse suprachiasmatic nucleus couple photoperiodically to the onset and end of daily activity. *PNAS, PNAS*, 104:7664-7669 (2007).
 39. Noshiro,M. Usui,E., Kawamoto,T., Hiroshi Kubo,H Fujimoto,K., Furukawa,M. Honma,S, Makishima,M., Honma, K. ,and Yukio Kato, Multiple regulatory mechanisms for the circadian expression of hepatic *Cyp7a* *J.Biol.Rhythms* 22:299-311 (2007)
 40. Hayasaka, N, Yaita, T, Kuwaki, T, Honma, S, Honma, K, Kudo, T, Shibata, S.Optimization of Dosing Schedule of Daily Inhalant Dexamethasone to Minimize Phase-shifting of Clock Gene

- Expression Rhythm in the Lungs of the Asthma. Mouse Model. *Endocrinology*. 148:3316-3326 (2007)
41. Baba, K., D.Ono, S.Honma and K.Honma. A TTX sensitive local circuit is involved in the expression of PK2 and BDNF circadian rhythms in the mouse suprachiasmatic nucleus. *Eur J Neurosci*, 27:909-916 (2008)
 42. Honma, S., T.Yasuda, A.Yasui, G.T.J. van der Horst and K.Honma. Circadian behavioral rhythms in *Cry1/Cry2* double-deficient mice. *J Biol Rhythm*, 23:91-94 (2008)
 43. Yamanaka, Y., S.Honma and K.Honma. Scheduled exposures to a novel environment with a running-wheel differentially accelerate re-entrainment of mice peripheral clocks to new light-dark cycles. *Genes to Cells*, 13: 497-507 (2008).
 44. Honma, S., N.Inagaki, D.Ono, T.Yoshikawa, S.Hashimoto and K.Honma. Clock mechanisms for seasonal adaptation: morning and evening oscillators in the suprachiasmatic nucleus. *Sleep Biol. Rhythm*, 6:84-90 (2008).
 45. Nishide, S., S.Honma and K.Honma. The circadian pacemaker in the cultured suprachiasmatic nucleus from pup mice is highly sensitive to external perturbation. *Eur J Neurosci*, 27:2686-2690 (2008).
 46. Kwon, H.J., H.Akimoto, Y.Ohmiya, K.Honma and K.Yasuda. Gene expression profile of rabbit cartilage by expressed sequence tag analysis. *Gene* 424:147-152 (2008).
 47. Kononenko, N., S.Honma, F.D.Dudek, K.Honma. On the role of calcium and potassium currents in circadian modulation of firing rate in rat suprachiasmatic nucleus neurons: Multielectrode dish analysis. *Neurosci. Research*, 62:51-57 (2008).
 48. Noshiro M., E.Usui, T.Kawamoto, F.Sato, A.Nakashima, T.Ueshima, K.Honda, K.Fujimoto, S.Honma, K.Honma, M.Makishima and Y.Kato. Liver X factors (LXR α and LXR β) are potent regulators for hepatic DEC1 expression. *Genes to Cells*, 14:29-40 (2009).
 49. Akimoto, H., H.J.Kwon, M.Ozaki, K.Yasuda, K.Honma, Y.Ohmiya. In vivo bioluminescence imaging of bone marrow-derived cells in brain inflammation. *Biochemical and Biophysical Research Communications*, 380: 844-849 (2009)
 50. Kuroshima, M., G.Takahashi, T.Suzuki, S.Hashimoto, K.Honma, T.Kachi. Effects of intracranial surgery on pineal lipid droplets, on other structures, and on melatonin secretion. *Anal Sci Int*, 84:17-26 (2009).
 51. Kwon, H.J., K.Yasua, Y.Ohmiya, K.Honma, Y.M.Chen, J.P.Gong. In vitro differentiation of chondrogenic ATDC5 cells is enhanced by culturing on synthetic hydrogels with various charge densities. *Act Biomaterialia*, 6:494-501 (2009)
 52. Ebisawa T, Numazawa K, Shimada H, Izutsub H, Sasaki T, Kato N, Tokunaga K, Mori A, Honma K, Honma S and Shibata. Self-sustained circadian rhythm in cultured human mononuclear cells isolated from peripheral blood. *Neurosci Res* 66:223-227 (2010)
 53. Yamanaka, Y., S.Hashimoto, Y.Tanahashi, S.Y.Nishida, S.Honma, K.Honma. Physical exercise accelerates re-entrainment of human sleep-wake cycle but not of plasma melatonin rhythm to 8 h phase-advanced sleep schedule. *Am J Physiol.*, 298:R681-R691 (2010)
 54. Watanabe, T T. Enomoto, M. Takahashi, S. Honma, K. Honma, Y.Ohmiya. Multi-channel perfusion culture

- bioluminescence reporter system for long-term detection in living cells. *Analytical Biochemistry*, 402:107-109 (2010)
55. Yamanaka, Y., Suzuki, T. Todo, K. Honma and S. Honma. Loss of circadian rhythm and light-induced suppression of pineal melatonin levels in *Cry1* and *Cry2* double-deficient mice. *Genes to Cells* 15:1063-1071 (2010)
 56. Takahashi, K., S. Onodera, H. Tohyama, H.J. Kwon, K. Honma and K. Yasuda. In Vivo imaging of particle-induced inflammation and osteolysis in the calvariae of NFkB/Luciferase Transgenic mice. *J Biomedical Biotechnology*, Article ID 727063, (2011)
 57. Hamada, T., S. Honma and K. Honma. Light responsiveness of clock genes, *Per1* and *Per2*, in the olfactory bulb of mice. *Biochem Biophys Res Comm* 409:727-731 (2011)
 58. Nishide, S., D. Ono, Y. Yamada, S. Honma and K. Honma. De novo synthesis of PERIOD initiates circadian oscillation in cultured mouse suprachiasmatic nucleus after prolonged inhibition of protein synthesis by cycloheximide. *Eur J Neurosci*, 35(2): 291-299 (2012).
 59. Kwon HJ, Ohmiya Y, Honma KI, Honma S, Nagai T, Saito K, and Yasuda K. Synchronized ATP oscillations have a critical role in prechondrogenic condensation during chondrogenesis. *Cell Death Dis.* (2012) Mar 8:3:e278. Doi: 10.1038/cddis.2012.20.
 60. Yoshitane Y., H., Honma S., Imamura K., Nakajima H., Nishide, S., Ono, D., Kiyota H., Shinozaki N., Matsuki H., Wada, N., Doi, H., Hamada, T., Honma, K., Fukada Y., c-Jun N-terminal kinase is a key player in photic regulation of the mammalian circadian clock. *EMBO Rep.* 13(5): 455-461 (2012).
 61. Enoki R, Ono D, Hasan MT, Honma S, Honma K. Single-cell resolution fluorescence imaging of circadian rhythms detected with a Nipkow spinning disk confocal system. *J Neurosci Methods*, 207(1):72-79 (2012).
 62. Honma S, Ono D, Suzuki Y, Inagaki N, Yosikawa T, Nakamura W, Honma K. Suprachiasmatic nucleus: cellular clocks and networks. *Prog Brain Res.* 199:129-141 (2012).
 63. Kasukawa T, Sugimoto M, Hida A, Minami Y, Mori M, Honma S, Honma K, Mishima K, Soga T and Ueda HR. Human blood metabolite timetable indicates internal body time. *Proc Natl Acad Sci USA*, 109(37):15036-15037 (2012).
 64. Enoki R, Kuroda S, Ono D, Hasan MT, Ueda T, Honma S and Honma K. Topological specificity and hierarchical network of the circadian calcium rhythm in the suprachiasmatic nucleus. *Proc Natl Acad Sci USA*, 109 (52):21498-21503 (2012)
 65. Yoshikawa, T., Masuno A., Yamanaka Y., Nishide SY, Honma S. and Honma K. Daily exposure to cold phase-shifts the circadian clock of neonatal rats in vivo. *Eur J Neurosci*, 37:491-497 (2013)
 66. Kononenko, N., Honma S and Honma K. Fast synchronous oscillations of firing rate in cultured rat suprachiasmatic nucleus neurons: Possible role in circadian synchronization in the intact nucleus. *Neurosci Research* 75(3):218-27 (2013)
 67. Ono, D., Honma S and Honma K. Cryptochromes are critical for the development of coherent circadian rhythms in the mouse suprachiasmatic nucleus. *Nat Commun* 4:1666, 2013 (2013)
 68. Natsubori A., Honma KI and Honma S. Differential responses of circadian *Per2* expression

- rhythms in discrete brain areas to daily injection of methamphetamine and restricted feeding in rats. *Eur J Neurosci.* 37:251-258 (2013)
69. Natsubori A., Honma K and Honma S. Differential responses of circadian *Per2* rhythms in cultured slices of discrete brain areas from rats showing internal desynchronization by methamphetamine *Eur J Neurosci* (2013)
 70. Yamada Y, Nishide S, Nakajima Y, Watanabe T, Ohmiya Y, Honma K and Honma S. Monitoring circadian time in rat plasma using a secreted *Cypridina* luciferase reporter. *Anal. Biochem.* (2013)
 71. Ono D, Honma S and Honma K. Postnatal Constant Light Compensates Cryptochrome1 and 2 Double Deficiency for Disruption of Circadian Behavioral Rhythms in Mice under Constant Dark. *PLoS One.* 20:8(11):e80615. doi: 10.1371/journal.pone.0080615 (2013)
 72. Yamanaka Y, Honma S and Honma K. Daily exposure to a running wheel entrains circadian rhythms in mice in parallel with development of an increase in spontaneous movement prior to running-wheel access. *Am J Physiol Regul Integr Comp Physiol.* 305(11):R1367-R1375 (2013).
 73. Nishide SY, Hashimoto K, Nishio T, Honma K and Honma S. Organ specific development characterizes circadian clock gene *Per2* expression in rats. *Am J Physiol Regul Integr Comp Physiol.* 306(1):R67-R74 (2013)
 74. Daan S, Honma S and Honma K. Body temperature predicts internal desynchronization of humans in isolation from time cues. *J Biological Rhythms* 28(6): 403-411 (2013)
 75. Honma, K., Hashimoto, S., Natsubori A., Masubuchi, S. and Honma S. Sleep-wake cycles in humans. *India J Sleep Med* 8(2):51-57 (2013)
 76. Natsubori A , Honma K and Honma S. Dual regulation of clock *gene Per2* expression in discrete brain areas by the circadian pacemaker and methamphetamine-induced oscillator in rats. *Eur J Neurosci.* 39(2):229-240 (2014)
 77. Yamanaka Y., Hashimoto S, Masubuchi S, Natsubori A, Nishide SY, Honma S and Honma K. Differential regulation of circadian melatonin rhythm and sleep-wake cycle by bright lights and nonphotic time cues in humans. *Am J Physiol Regul Integr Comp Physiol,* 307 (5): R546-R557 (2014)
 78. Kon N, Yoshikawa T, Honma S, Yamagata Y, Yoshitane H, Shimizu K, Sugiyama Y, Hara C, Kameshita I, Honma K and Fukada Y. CaMKII is essential for the cellular clock and coupling between morning and evening behavioral rhythms. *Genes Dev,* 28(10): 1101-1110 (2014)

B. Book in English (since 2001)

1. Ikeda, M., S.Honma, H.Abe, M.Namihira, W.Yu, M.Nomura and K.Honma. Molecular cloning and characterization of the clock gene *Bmal1*. In: *Zeitgebers, Entrainment and Masking of the Circadian System.* (eds) K.Honma and S.Honma, Hokkaido Univ. Press, Sapporo, pp.101-105 (2001)
2. Honma, S., S.Masubuchi, W.Nakamura, T.Shirakawa and K.Honma. Multiple circadian oscillators in the SCN and multiple pacemakers outside the SCN. In: *Zeitgebers, Entrainment and Masking of the Circadian System.* (eds) K.Honma and S.Honma, Hokkaido Univ. Press, Sapporo, pp.239-250 (2001)
3. Honma, S., Namakura, W., Shirakawa, T. and Honma, K.: Cellular Oscillators in the

- Suprachiasmatic Nucleus: studies of cultured SCN on a multi-electrode dish, In: *Circadian Clock as Multi-oscillatoin System*, (eds) K. Honma, and S. Honma, Hokkaido Univ. Press, Sapporo, pp.155-166 (2003)
4. Hashimoto, S., Nakamura, K., Honma, S. and Honma, K. :Multi-oscillatory Human Circadian System: Non-photic Entrainment of Human Rest-Activity Rhythm, In: *Circadian Clock as Multi-oscillatoin System*, (eds) K. Honma, and S. Honma, Hokkaido Univ. Press, Sapporo, pp.95-101 (2003)
 5. Honma, K., Hashimoto, S., Miyazaki, T. and Honma, S.: Biological Clock and Physical Exercise, In: Exercise, Nutrition, and Environmental Stress, Vol.4: *International Sports Science Network Forum Nagano*, (eds) H.Nose, M.J.Joyer and K.Miki, Cooper, Traverse, pp.1-17 (2004)
 6. Honma, K., Masubuchi, S., Hashimoto, S., Endo, T. and Honma, S. An Animal Model for the Human Circadian System. In: *Biological Rhythms*, (eds) K. Honma and S. Honma, Hokkaido Univ. Press, Sapporo, pp.153-1170 (2005)
 7. Honm, S., Nakamura W., Shirakawa, T. and Honma, K. Application of a Multielectrode Array Dish to Chronobiology. In: *Biological Rhythms*, (eds) K. Honma and S. Honma, Hokkaido Univ. Press, Sapporo, pp.91104 (2005)
 8. Honma, S., Nakamura, W., Shirakawa, T. and Honma, K.: Monitoring the Clock Neuron's Tick: Circadian Rhythm Analysis Using a Multi-Electrode Array Dish. In: *Advances in Network Electrophysiology using Muti-Electrode Arrays*, (eds) M. Taketani and M. Baudry, Springer, Singapore, pp.409-424 (2006)
 9. Honma, K., Yamazaki, A., Ootsuki, Y., Noda, N. and Honma, S.: Maternal deprivation in neonatal period and biological rhythm, In: *PTSD: Brain Mechanisms and Clinical Implication*, (eds) N.Kato, M.Kawata, R.K.Pitman, Springer, Tokyo, pp.137-144 (2006)
 10. Honma, S., T. Yoshikawa, S. Nishide, D. Ono and K. Honma. Bioluminescent Imaging for Assessing Heterogenous Cell Functions in the Mammalian Central Circadian Clock. In: *Molecular Imaging for Integrated Medical Therapy and Drug Development*, (eds) N. Tamaki and Y. Kuge, Springer, Tokyo, pp.189-196 (2010)
 11. Honma, S., Ono, D. and Honma K. Oscillator cell networks in the hypothalamic suprachiasmatic nucleus, the master circadian clock. In. *Advances in Cognitive Neruodynamics (III)*, (eds) T. Omori and S. Tsukada, Springer, pp.185-190 (2013)
 12. Honma S, Ono D. Suzuki Y, Inagaki N, Yoshikawa T, Nakamura W and Honma K. Suprachiasmatic nucleus: cellular clocks and networks In *Progress in Brain Res.* vol 199. Kaalsbeek A, Merrow M, Roenneberg T and Foster RG (eds) Elsevier, pp. 29-141 (2012)
 13. Honma K, Ono D, Honma S, Tokuda IT. Bout Oscillators – hypothetical circadian oscillators for an activity bout. In: *Dynamics of* (ed) K. Honma, Hokkaido University Press, pp. 97-110 (2014)

C. Invited Speaker (since 2001)

Lectures in English

1. Honma, K. An animal model for the human circadian system. The 1st World Congress of

- Chronobiology, Sapporo (*Japan*) (2003)
2. Honma, K. Recent Progress of Circadian Rhythm Research. The 4th Asian Sleep Research Society (ASRS) Congress, Zhuhai (*China*) (2004)
 3. Honma, K. Oscillatory Mechanism Underlying Human Sleep-Wake Cycle. Golden Jubilee National Conference of APPI, Symposium on Neurophysiology of Sleep, Bangalore (*India*) (2004)
 4. Honma, K. Biological Clock and Physical Exercise. International Sports Science Network Forum in Nagano 2004, Matsumoto (*Japan*) (2004)
 5. Honma, K. Photic and non-photic entrainment of human circadian rhythms: how to explain the seasonality. observed in humans? Seminar am Wilhelminenberg Sommersemester 2004, Wien (*Austria*) (2004)
 6. Honma, K. Human circadian pacemaker and sleep-wake cycles. The 22nd International Symposium in Conjunction with Award of the International Prize for Biology “Chronobiology”, Tokyo (*Japan*) (2006)
 7. Honma, K. Human sleep-wake cycle and circadian pacemaker: an animal model for two oscillating systems. The 5th Congress of the World Federation of Sleep Research and Sleep Medicine Societies, Cairns (*Australia*) (2007)
 8. Honma, K. Time structure of physiology and behaviors. The 50th Anniversary of Mexican Physiological Society. Puebla (*Mexico*) (2007)
 9. Honma, K. SCN independent clocks: a possible mechanism of non-photic entrainment in humans. International Symposium on Biological Rhythm, Sapporo (*Japan*) (2009)
 10. Honma, K. Sleep and circadian rhythm: a two-oscillator hypothesis. Turkish-Japanese Sleep Forum, Izmir (*Turkey*) (2010)
 11. Honma, K. Human Circadian Clock – the 50th anniversary of temporal isolation Study. Satellite Symposium of Worldsleee2011 on Human Circadian Clock. Sapporo (*Japan*) (2011)
 12. Honma, K. History of Chronobiological Societies-Chronobiologists are always looking for the best friend. 3rd World Congress of Chronobiology, Historical Lecture, Abstr. P.48., Puebla (*Mexico*), May 7 (2011)
 13. Honma, K. Circadian Clock and Sleep-Wake Cycle. Worldsleee2011, Kyoto (*Japan*) (2011)
 14. Honma, K. Circadian organization of brain functions in mammals – from molecular to behavior. The 7th Congress of the Federation of Asian and Oceanian Physiologicaal Societies, Taipei (*Taiwan*) (2011)
 15. Honma, K. Sleep in the Seasons. 13th Congress of Turkish Sleep Medicine, Antalya (*Turkey*), Dec.13 (2012)
 16. Honma, K. Non-photic entrainment of human circadian rhythms: a possible mechanism. XIII Congress of European Biological Rhythm Society, Munich (Germany) , August 20, (2013)

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1. Honma, K. Hierarchical multi-oscillator systems in mammalian circadian clocks, The 25th Conference of International Society for Chronobiology, Kermer-Antalya (*Turkey*) (2001.10)

2. Honma, K. Entrainment in humans – What does it take? The 8th Meeting of the Society for Research of Biological Rhythms, Ameliland (USA) (2002.6)
3. Honma, K. Photic and non-photic entrainment of human circadian rhythm. How to explain the personality observe in humans?, Seminare and Wilhelminenberg Sommersemester 2004, Wien (Austria) (2004)
4. Honma, K. Oscillatory mechanism underlying human sleep-wake cycle, Golden Jubilee Conference of APPI, Bangalore (India) (2004)
5. Honma, K. Yamazaki,A., Noda,N. and Honma,S. Prolonged stress and biological rhythms. PTSD symposium: Brain Mechanisms and Clinical Implication, Kyoto (Japan) (2005).
6. Honma, K. Human circadian pacemaker and sleep-wake cycles. The 22nd International Symposium in Conjunction with Award of the International Prize for Biology “Chronobiology”, Tokyo (Japan) (2006)
7. Honma, K. Multi-oscillator Hierarchical System. 83th Annual Meeting of Japanese Society of Physiology, IUPS symposium [Temporal Organization of Physiology and Behaviors – functions of SCN vs Non-SCN clocks] , Gunma (2006)
8. Honma, K. Structure and functions of biological clock. The 7th international symposium on itch. Osaka (Japan) (2007)
9. Honma, K. Chronobiology and space medicine. The 1st International Space Medicine Symposium, Sapporo (Japan) (2007).
10. Honma, K. Respiratory function and biological clock. The 5th Sleep Respiratory Forum in Otaru. Otaru (Japan) (2008).
11. Honma, K. Circadian organization in humans: is their any oascillaor(s) for behavioral rhythms independent of those in the SCN. 36th International Congress of Physiological Sciences: Whole-day Symposium ‘Temporal Organization of Physiology and Behavior’, Kyoto (Japan) (2009).
12. Honma, K. Organization of the hierarchical multi-oscillator system in the suprachiasmatic nucleus. XI Congress of the European Biological Rhythms Society: Plenary Symposium, Strasburg (France) (2009).
13. Honma, K. Sleep and Circadian rhythm: A two-oscillator hypothesis. Turkish-Japanese Sleep Forum, Izmir (Turkey) (2010)
14. Honma, K. Circadian Regulation of Behavior in Mammals. The 3rd World Congress of Chronobiology, Puebla (Mexico) (2011)
15. Honma K. SCN and non-SCN mechanisms of behavioral generation –hierarchical multi-oscillator system. Workshop: Emergence of circadian rhythms from the central pacemaker and beyond. Institute of Theoretical Biology, Berlin (Germany), Aug.15 (2011).
16. Honma K. Human Rhythms in isolation from time cue – thirty years of attempts to answer “some unsettled questions”. Groningen University, Center for behavior and neuroscience seminar, Groningen (Holland) Aug.18 (2011)
17. Honma K. Human Circadian Clock – the 50th anniversary of temporal isolation Study. Satellite Symposium of Worldsleee2011 on Human Circadian Clock. Symposium “the 50th anniversary of

temporal isolation Study”, Sapporo (Japan), Oct 23 (2011).

18. Honma K. Sleep-Wake Cycle in Humans: a classic but new approach. International Symposium on Frontiers in Sleep and Biological Rhythms' Research. Izmir (Turkey), April 31 (2012)
19. Honma, K. How to realize a causality of sequential events of bodily functions with sleep. Symposium : Active Brain in Sleep – New Approaches to the Brain Functions –, The 7th ASRS Congress, Taipei (Taiwan), Dec 2 (2012).
20. Honma, K. An Animal Model for Human Circadian System. Faculty Lecture, University of Geneva Department of Molecular Biology, Geneva (Swiss), Dec 17 (2012)
21. Honma, K. Interaction of Methamphetamine-induced Oscillation and the SCN Circadian Clock. 25th Annual Meeting of Society for Light Treatment and Biological Rhythms, Geneva (Swiss) (2013)
22. Honma, K. Biometeorological studies in sleep and biological rhythms. 8th Congress of Asian Sleep Research Society, Kovalala (India), Sept 23 (2014)