

# Kumi O. KURODA



## Current position

Principal investigator  
Laboratory for Affiliative Social Behavior  
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**Research Interest**    Neural mechanism of mammalian parent-infant relationship

## Education

B.S.    Kyoto University (Japan), Physics  
M.D.    Osaka University (Japan), Medicine  
Ph.D.    Osaka University Graduate School of Medicine (Japan), Biochemistry and Molecular Biology

## Professional Experience

1997-1998    Intern, Dept. Psychiatry, Osaka University Hospital  
1999-2002    DC-1 Research fellow, the Japan Society for the Promotion of Science  
2002-2004    Long-term Fellowship of the Human Frontier Science Program  
                  Dept. Neuroscience and psychiatry, McGill University, Canada  
2004-2007    Special Postdoctoral Researcher, RIKEN Brain Science Institute  
2008-2014    Unit Leader of Kuroda Research Unit for Affiliative Social Behavior,  
                  RIKEN Brain Science Institute  
2015-Present    Team Leader of Laboratory for Affiliative Social Behavior, RIKEN  
                  Center for Brain Science

## Selected original research articles

Tsuneoka Y, Maruyama T, Yoshida S, Nishimori K, Kato T, Numan M, and Kuroda KO. "Functional, anatomical, and neurochemical differentiation of medial preoptic area subregions in relation to maternal behavior in the mouse". *J Comp Neurol*, 521:1633-63. (2013) (e-pub ahead: 2012)  
Tachikawa KS, Yoshihara Y, and Kuroda KO. "Behavioral transition from attack to

parenting in male mice: a crucial role of the vomeronasal system." *J Neurosci*, 33:5120-6. (2013)

Esposito G\*, Yoshida S\*, Ohnishi R, Tsuneoka Y, Rostagno MC, Yokota S, Okabe S, Kamiya K, Hoshino M, Shimizu M, Venuti P, Kikusui T, and Kato T and Kuroda KO. "Infant calming responses during maternal carrying in humans and mice". *Curr Biol*, 23:739-745. \*Equal contribution. (2013)

Yoshida S, Esposito G, Ohnishi R, Tsuneoka Y, Okabe S, Kikusui T, Kato T, and Kuroda KO "Transport Response is a filial-specific behavioral response to maternal carrying in C57BL/6 mice.", *Front Zool*, 10(1), 50 (2013)

Tsuneoka Y, Tokita K, Yoshihara C, Amano T, Esposito G, Huang AJ, Yu LM, Odaka Y, Shinozuka K, McHugh TJ, Kuroda KO "Distinct preoptic-BST nuclei dissociate paternal and infanticidal behavior in mice.", *EMBO Journal*, 34(21), 2652-70 (2015)

Amano T., Shindo S., Yoshihara C., Tsuneoka Y., Uki H., Minami M., and Kuroda K.O.: "Development-dependent behavioral change toward pups and synaptic transmission in the rhomboid nucleus of the bed nucleus of the stria terminalis.", *Behav Brain Res*, 325(Part B), 131-7 (2016)

Yoshida S, Ohnishi R, Tsuneoka Y, Yamamoto-Mimura Y, Muramatsu R, Kato T, Funato H, Kuroda KO. "Corticotropin-Releasing Factor Receptor 1 in the Anterior Cingulate Cortex Mediates Maternal Absence-Induced Attenuation of Transport Response in Mouse Pups", *Front. Cell. Neurosci.*, 12, Article 204 (2018)

#### **Book Chapters and reviews in English (Peer reviewed)**

Kuroda K.O., Tachikawa K., Yoshida S., Tsuneoka Y., and Numan M. Neuromolecular basis of parental behavior in laboratory mice and rats: with special emphasis on technical issues of using mouse genetics., *Prog Neuropsychopharmacol Biol Psychiatry*, 35:1205-31 (2011)

Kuroda, K.O. and Tsuneoka Y., Assessing postpartum maternal care, alloparental behavior, and infanticide in mice: with notes on chemosensory influences. *Methods Mol Biol*, 1068, 331-47 (2013)

Kuroda K.O., and Numan M. The medial preoptic area and the regulation of parental behavior., *Neurosci Bulletin*, 30(5), 863-5 (2014)

Yoshihara C., Numan M., and Kuroda K.O.: "Oxytocin and Parent Behaviors." *Current Topics in Behavioral Neurosciences*, 1-35 (2017)

**Selected movies (Youtube)** Infant calming responses by maternal carrying (2013)

<https://www.youtube.com/watch?v=VNCfbFEmwJI>