業績目録

荒川礼行 University of Maryland School of Medicine

a. 外国語による論文、著書

41. **Arakawa, H.** & Iguchi, Y. (2018). Ethological and multi-behavioral analysis of learning and memory performance in laboratory rodent models. *Neuroscience Research*, 135, 1-12. PMID: 29432797 + Review article

*40. **Arakawa, H**. (2018). Ethological approach to social isolation effects in behavioral studies of laboratory rodents. *Behavioural Brain Research*. 341, 98-108. PMID: 29287909. +Review article

*39. **Arakawa, H**. (2018). Analysis of social process in two inbred strains of male mice: a predominance of contact-based investigation in BALB/c mice. *Neuroscience*. 369, 124-138. PMID: 29138108.

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*33. **Arakawa, H. (**2017). Involvement of oxytocin and serotonin in neural mechanism for regulating amicable social signals in male mice: implication for impaired recognition of amicable cues in BALB/c strain. *Behavioral Neuroscience*. 131(2), 176-191.

32. Wang, W., **Arakawa, H.**, Wang, L., Okolo, O., Siedlak, S., Jiang, Y., Gao, J., Xie, F., Petersen, R., & Wang, X. (2017). Motor-coordinative and cognitive dysfunction caused by mutant TDP-43 could be reversed by inhibiting its mitochondria localization. *Molecular Therapy*. 25(1), 127-139..

*31. **Arakawa, H.**, Blanchard, D.C., & Blanchard, R.J. (2015). Central oxytocin regulates social familiarity and scent marking behavior that involves amicable odor signals between male mice. In Special Issue: honor of Robert Blanchard.

Physiology & Behavior. 146, 36-46. PMID: 26066721

30. **Arakawa, H.**, Erzurumlu, R.S. (2015). Role of whiskers in sensorimotor development of C57BL/6 mice. *Behavioural Brain Research*.287, 146-155. PMID: 25823761

29. **Arakawa, H.**, Akkentli, F., & Erzurumlu, R.S. (2014). Region-specific disruption of Adenylyl cyclase type 1 gene differentially affects somatosensorimotor behaviors in mice. *eNeuro*, DOI: 10.1523/ENEURO.0007-14.2014.

28. Arakawa, K., **Arakawa, H**., Hueston, C.M., & Deak, T. (2014). The effects of estrous cycle and ovarian hormones on central expression of interleukin-1 evoked by stress in female rats. *Neuroendocrinology*, 200(2-3), 162-77. PMID:25300872.

27. **Arakawa, H.**, Suzuki, A., Zhao, S., Tsytsarev, V., Lo, F.-S., Hayashi, Y., Itohara, S., Iwasato, T., & Erzurumlu, R.S. (2014). Thalamic NMDA receptor function is necessary for patterning of the thalamocortical somatosensory map and for sensorimotor behaviors. *Journal of Neuroscience*, 34 (36), 12001-12014. PMID:25186746.

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20. **Arakawa, H.**, Arakawa, K., & Deak, T. (2010). Oxytocin and vasopressin in the medial amygdala differentially modulate approach and avoidance behavior toward illness-related social odor. *Neuroscience*. 171, 1141-1151.PMID: 20933576.

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communication signals as determinants of social behavior in rat: a role of inflammatory processes. *Hormones and Behavior*. 57, 330-341. PMID: 20079357

18. Blanchard, R.J., Latvin, Y., **Arakawa, H.**, Blanchard, D.C. (2009) Aversive Learning. In Windhorst U., Binder, M.D., and Hirokawa, N. (Eds.), *Encyclopedia of Neuroscience*. Part I. pp. 293-296. Springer-Verlag, Heidelberg.

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16. **Arakawa, H.**, Arakawa, K., & Deak, T. (2009). Acute illness induces the release of aversive odor cues from adult but not prepubertal male rats and suppresses social investigation by conspecifics. *Behavioral Neuroscience*. 123, 964-978. PMID: 19824763.

15. **Arakawa, H.**, Arakawa, K., Blanchard, D.C., & Blanchard, R.J. (2009). Social features of scent-donor mice modulate scent marking of C57BL/6J recipient males. *Behavioural Brain Research*, 205(1), 138-145. PMID: 19616031.

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+Review article

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10. **Arakawa, H.**, Arakawa, K., Blanchard, D. C., & Blanchard, R. J. (2007). Scent marking behavior in male C57BL/6J mice: sexual and developmental determination. *Behavioural Brain Research*, 176, 73-79. PMID: 17561279.

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7. **Arakawa, H.**, Blanchard, D. C., & Blanchard, R. J. (2007). Colony formation of C57BL/6J mice in visible burrow system: Identification of eusocial behaviors in a background strain for genetic animal models of autism. *Behavioural Brain Research*, 176, 27-39.

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b. 国際学会、海外学会での発表、講演等

26. Arakawa, H. (2017). Are balb/c mice less social? a detailed analysis of social process in two inbred mouse strains. *Society for Neuroscience, 47th meeting*, Washington DC, United States.

25. Arakawa, H. (2015). Central oxytocin regulates olfactory communication, scent marking, that involves affiliative signals between male mice. (Nano symposium presentation). *Society for Neuroscience, 45th meeting*, Chicago, United States.

24. Tsytsarev, V., Arakawa, H., Gaspar, P., Chedotal A., Erzurumlu, R.S. (2015). Functional consequences of bilateral facial maps along the thalamocortical system. *Society for Neuroscience, 45th meeting*, Chicago, United States.

23. Arakawa, H., Suzuki, A., Iwasato, T., Erzurumlu, R. (2012). Lack of thalamic adenylyl cyclase 1 in development leads to significant behavioral impairments in adult somatosensory performance. *Society for Neuroscience, 42- meeting*, New Orleans, United States.

22. Arakawa, H., Erzurumlu, R. (2012). Behavioral function and development of the vibrissal system in C57BL/6J mice. *International Society for Developmental Psychobiology. 45th meeting*, New Orleans, United States.

21. Arakawa, H., Arakawa, K., Cruz, S., & Deak, T. (2010). Oxytocin and vasopressin in the medial amygdala modulate approach/avoidance responses to chemosignals associated with health condition in male rats. *AChemS (Association for Chemoreception Science) 32nd Annual meeting*, Tampa, FL, United States.

20. Arakawa, H., Arakawa, K., & Deak, T. (2009). The release of aversive odor cues from stressed rats elicits avoidance behavior in conspecifics and is blocked by central administration of IL-10. *Society for Neuroscience, 39th meeting*, Chicago, IL United States

19. Arakawa, K., Arakawa, H., Eberle, J., & Deak, T. (2009). The impact of OVX and estradiol replacement on neuroinflammatory consequences of stressor exposure in female Sprague Dawley rats. *Society for Neuroscience, 39th meeting*, Chicago, IL United States.

18. Arakawa, H., Arakawa, K., & Deak, T. (2009). Sickness odor recognition: endotoxin-

induced urinary odor induces avoidance in rats. *Society for Behavioral Neuroendocrinology, 13th meeting*, Lansing, Michigan, United States.

17. Blanchard,R.J., Blanchard,D.C., Arakawa,H., & Borelli, K.G. (2009). Social behavior and communication in the mouse. *International Behavioral Neuroscience Society, 18th meeting*, Nassau, The Bahamas.

16. Arakawa, H., Arakawa, K., & Deak, T. (2008). Developmental emergence of social aversive signals induced by immune challenge in male rats: implication for androgenic modulation. *Society for Neuroscience, 38th meeting*, Washington DC, United States.

15. Deak, T., Arakawa, H., Blandino Jr., P., Eberle, J, & Arakawa, K. (2008). Peri-adolescent immune challenge leads to profound changes in social investigation and blunted cytokine responses to stress that persist through adulthood. *Society for Neuroscience, 38th meeting*, Washington DC, United States.

14. Arakawa, K., Arakawa, H., Blandino Jr., P., Eberle, J., Barnum C.J., & Deak, T. (2008). Acute stress increases central expression of interleukin-1 in regularly cycling female rats at all stages of the estrus cycle except during metestrus. *Society for Neuroscience, 38th meeting*, Washington DC, United States.

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11. Blanchard, D.C., & Arakawa, H. (2008). Modeling reciprocal social interactions, and communication, in mice. *International Society for Autism Research, annual meeting*, London, England.

10. Arakawa, H., Blanchard, D.C., & Blanchard, R.J. (2007). Social recognition of C57BL/6J mouse evidenced by scent marking behavior. *Society for Neuroscience, 37th meeting*, San Diego, California, United States.

9. Blanchard, D.C., Arakawa, H., & Blanchard, R.J. (2007). Ethological approaches to a mouse model of autism. *Society for Neuroscience, 37th meeting*, San Diego, California, United States.

8. Blanchard, D.C., & Arakawa, H. (2007) Individual differences in the development of affective disorders. *IBRO World Congress of Neuroscience*, Melbourne, Australia.

7. Arakawa, H., Blanchard, D.C., and Blanchard, R.J. (2007). Social communication and learning evidenced by scent marking in the mouse. Satellite meeting in International Behavioral Neuroscience Society, 16th meeting, Rio de Janeiro, Brazil.

6. Arakawa, H., Blanchard, D.C., and Blanchard, R. J. (2006). Colony formation and maintenance of C57BL/6J mice in the visible burrow system: identification of eusocial behaviors in a background strain for animal models of autism. *Society for Neuroscience, 36th meeting*, Atlanta, Georgia, United States.

5. Blanchard, D. C., Arakawa, H., & Blanchard, R. J. (2006). Social behaviors in wild mice and in the C57BL/6J strain. *Society for Neuroscience, 36th meeting*, Atlanta, Georgia, United States.

4. Arakawa, H. (2006). The effects of juvenile isolation and different sex, age and relatedness rearing-pairs on defensive burying behaviors in rats. *International Society for Developmental Psychobiology, 39th meeting*, Atlanta, Georgia, United States.

3. Arakawa, H. (2005). Ontogeny of sex differences in defensive burying behavior in rats: Effect of social isolation and rehousing. *International Society for Developmental*

Psychobiology, 38th meeting. Watshington DC, United States.

2. Arakawa, H. (2004) Consequences of crowding on open-field behavior and the social development in male rats. *International Society for Developmental Psychobiology. 38th meeting*, Provence, France.

1. Arakawa, H. (2004) Emergence of changes in pattern of exploratory behavior associates with the development of social dominance relationships in male rats. *International Society for Research on Aggression. 16th meeting*. Santorini, Greece.

c. その他国際的な業績

招待講演

03,2014- Rodent social communication and impact of social contact on neurobehavioral development. Department of Psychology, South Connecticut State University, Invited seminar.

02,2014- Impact of social contact on neurobehavioral development in rodent social communication. Department of Neuroscience, Case Western Reserve University, School of Medicine. Invited seminar.

02,2014- Impact of social contact on neurobehavioral development in rodent social communication. Department of Psychology, Grand Valley State University, Invited seminar.

01, 2013- Measuring olfactory behavior from ethological view. Invited seminar. Department of Biological Sciences, University of Maryland Baltimore County, Invited seminar.

12, 2009- Regulatory role of inflammation in social behavior in rats: illness-associated odor signal. Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Invited seminar.

国際紙における論文査読

Animal Behaviour
Animal Cognition
Behavioural Brain Research
Behavioral Neuroscience
Behavioural Processes
Brain Behavior and Immunity
Brain Research
British Journal of Anaesthesia
Developmental Psychobiology
Ethology
Expert Opinion on Therapeutic Targets
Hormones and Behavior
Journal of Ethology
Neuroscience
Neurosignals
Physiology and Behavior
Psychoneuroendocrinology
Sleep and Breathing
Tissue and Cell