

Publications

Peer-reviewed primary publications:

1. **Cutts C.J.; Brembs B.; Metcalfe N.B. and Taylor A.C. (1999):** Prior residence, territory quality and life-history strategies in juvenile Atlantic salmon (*Salmo salar* L.). *J. Fish. Biol.* *55*, 784-794.
2. **Brembs B. and Heisenberg M. (2000):** The Operant and the Classical in conditioned orientation of *Drosophila melanogaster* at the flight simulator. *Learn. Mem.* *7*, 104-115.
3. **Brembs B. and Heisenberg M. (2001):** Conditioning with compound stimuli in *Drosophila* at the flight simulator. *J. Exp. Biol.* *204*, 2849-2859
4. **Baier A.; Wittek B. and Brembs B. (2002):** *Drosophila* as a new model organism for the neurobiology of aggression? *J. Exp. Biol.* *205*, 1233-1240.
5. **Brembs B.; Lorenzetti F.D.; Reyes F.D.; Baxter D.A. and Byrne J.H. (2002):** Operant Reward Learning in *Aplysia*: Neuronal Correlates and Mechanisms. *Science* *296*, 1706-1709.
6. **Brembs B.; Baxter D.A. and Byrne J.H. (2004):** Extending *in vitro* conditioning in *Aplysia* to analyze operant and classical processes in the same preparation. *Learn. Mem.* *11*, 412-420.
7. **Phillips A.M.; Smart R.; Strauss R.; Brembs B. and Kelly, L.E. (2005):** The *Drosophila black* enigma: the molecular and behavioural characterization of the *black¹* mutant allele. *Gene* *351C*, 131-142.
8. **Brembs, and B Wiener, J. (2006, subm.):** Context generalization and occasion setting: mushroom bodies stabilize visual memory in *Drosophila*.
9. **Brembs, B. and Hempel de Ibarra, N. (2006, subm.):** Different parameters support discrimination and generalization in *Drosophila* at the flight simulator.
10. **Maye, A.; Hsieh, C.; Sugihara, G. and Brembs, B. (2006, in prep.):** Order in spontaneous behavioural activity in *Drosophila*.

Other publications:

Peer-reviewed articles:

A. Invited Reviews

1. **Brembs B. (2003):** Operant reward learning in *Aplysia*. *Curr. Dir. Psychol. Sci.* *12*, 218-221.
2. **Brembs B (2003):** Operant conditioning in invertebrates. *Curr. Opin. Neurobiol.* *13*, 710-717.

B. Reviews

1. **Brembs B. (1996):** Chaos cheating and cooperation: potential solutions to the Prisoner's Dilemma. *OIKOS* *76*, 14-24.
2. **Heisenberg M.; Wolf R. and Brembs B. (2001):** Flexibility in a single behavioral variable of *Drosophila*. *Learn. Mem.* *8*, 1-10

Book Chapters:

1. **Brembs B. (2001):** Hamilton's Theory. In: Brenner, S. and Miller, J. (eds) *Encyclopedia of Genetics*, Academic Press, London, New York; pp. 906-910.
2. **Menzel R.; Brembs, B. and Giurfa M. (2006, in press):** Cognition in Invertebrates. In: Strausfeld, N.J. and Bullock, T.H. (eds) *The Evolution of Nervous Systems, Vol II: Evolution of Nervous Systems in Invertebrates*. Elsevier Life Sciences.

Presentations:

Poster presentations at scientific meetings:

1. **Brembs B.; Wolf R.; Heisenberg M. (1997):** Is operant behavior facilitating classical conditioning of *Drosophila* at the flight simulator? In: Elsner N, Waessle H (eds) Göttingen Neurobiology Report 1997. Georg Thieme Verlag Stuttgart, New York: 652.
2. **Wolf R.; Brembs B.; Ernst R. and Heisenberg M. (1998):** Classification of learning in tethered flying *Drosophila*. In: Elsner N and Wehner R (eds) New Neuroethology on the Move. Georg Thieme Verlag Stuttgart, New York: 111
3. **Brembs B.; Wolf R. and Heisenberg M. (1998):** How different are operant and classical conditioning at the flight simulator? 5th International Congress of Neuroethology, San Diego, Ca.
4. **Brembs B.; Wolf R. and Heisenberg M. (1998):** Operant and Classical Learning at the Flight Simulator: What is the Role of the Context? In: Elsner N and Wehner R (eds) New Neuroethology on the Move. Georg Thieme Verlag Stuttgart, New York: 514.
5. **Brembs B.; Wolf R. and Heisenberg M. (1999):** Classical Questions in an Operant Learning Paradigm. In: Elsner N and Eysel U (eds) Göttingen Neurobiology Report 1999. Georg Thieme Verlag Stuttgart, New York: 545.
6. **Baxter D.A.; Cai Y.; Brembs B. and Byrne J.H. (2000):** Simulating physiological and morphological properties of neurons with SNNAP (Simulator for Neural Networks and Action Potentials). Soc. Neurosci. Abstr. 26:21.64.
7. **Brembs B.; Wilkinson E.; Reyes F.; Baxter D.A. and Byrne J.H. (2001):** Operant conditioning using self-stimulation in *Aplysia*. In: Kreutzberg GW and Elsner N (eds) Göttingen Neurobiology Report 2001. Georg Thieme Verlag Stuttgart, New York
8. **Baxter D.A.; Brembs B. and Byrne J.H. (2001):** Operant conditioning of feeding behavior in *Aplysia*. Cold Spring Harbor Symposium on Learning and Memory.
9. **Brembs B.; Wilkinson E.; Reyes F.; Baxter D.A. and Byrne J.H. (2001):** Operant conditioning of feeding behavior in *Aplysia* using self-stimulation. Soc. Neurosci. Abstr. 644.19
10. **Brembs B.; Wilkinson E.; Reyes F.; Baxter D.A. and Byrne J.H. (2001):** Operant conditioning of feeding behavior in *Aplysia*. 6th International Congress of Neuroethology, Bonn, Germany.
11. **Evans C.G; Jing J.; Proekt A., Brembs B.; Rosen S. and Cropper E.C. (2003):** Frequency-dependent regulation of afferent transmission in the feeding circuitry of *Aplysia*. Soc. Neurosci. Abstr. 604.1.
12. **Brembs B.; Baxter D.A. and Byrne J.H. (2004):** Extending *in vitro* conditioning in *Aplysia* to analyze operant and classical processes in the same preparation. 7th International Congress of Neuroethology, Nyborg, Denmark.
13. **Carbon, C.C.; Leder, H.; Weber, J.; Sander, T.; Trahms, L.; Grueter, M.; Grueter, T.; Brembs, B. and Lueschow, A. (2004).** Specific impairments of configural processing in prosopagnosics. Soc. Neurosci. Abstr., 200.23.
14. **Brembs, B.; Maye, A. and Greggers, U. (2005):** Order in spontaneous behavior. Soc. Neurosci. Abstr., 754.2.
15. **Wiener, J.; Gerber, B.; Hempel de Ibarra, N.; Menzel, R. and Brembs, B. (2005):** Occasion setting in *Drosophila* at the flight simulator. Soc. Neurosci. Abstr., 777.9

16. **Brembs, B.; Hsieh, C.; Sugihara, G. and Maye, A (2006):** Do fruit flies have free will? 5th FENS Forum, Vienna
17. **Christiansen, F.; Pflüger, J.; Duch, C.; and Brembs, B. (2006):** Profound flight performance deficit in *Drosophila* lacking octopamine. 5th FENS Forum, Vienna

Invited Presentations:

1. **19/07/2004-23/07/2004:** Participant, Novartis Foundation Symposium No. 268 on "Molecular Mechanisms Influencing Aggressive Behaviours." London, England, UK.
2. **17/09/2006-22/09/2006:** Speaker, XIII Summer School, Nicolás Cabrera Institute, "Biophysics of Biological Circuits: from Molecules to Networks." Universidad Autónoma de Madrid, Spain.