Curriculum Vitae
Jean-Marc FELLOUS
Last updated: 5/2017

Address .... Department of Psychology
University of Arizona
1503 E. University Blvd, room 312
PO Box 210068
Tucson, AZ 85721

Telephones .... (520) 621-7447 (Front office)
(520) 626-2617 (Office)
(520) 621-9306 (Fax)
(520) 626-9632 (Laboratory)

Email .... fellous@email.arizona.edu

Personal Website............ http://www.u.arizona.edu/~fellous/
Laboratory Website............ http://amygdala.psychdept.arizona.edu/lab.html

Chronology of Education

1988   **Engineer Diploma,** ESIM, Ecole Superieure d'Ingenieurs de Marseille, France (renamed 'Ecole Centrale de Marseille', equivalent B.S.). Major fields: Electronics, Artificial Intelligence and Logic Programming.

1990   **D.E.A d'Intelligence Artificielle,** Paris VI University, France (M.S. in Artificial Intelligence) **-** with Honors. Advising Committee: Dr. J. Ferber, Dr. J. Pitrat. Thesis: PACTOL: an adaptive and introspective actor formalism. Major field: Artificial Intelligence.

1990   **Master's Degree** in Computer Science, University of Southern California, Los Angeles, CA.

1996   **Ph.D. Degree** in Computer Science, University of Southern California, Los Angeles, CA. Advising Committee: Dr. M.A. Arbib (Chair), Dr. C. von der Malsburg and Dr. I. Biederman. Thesis: A Neural Code for Face Representation: from V1 Receptive Fields to IT 'Face Cells'. Major fields: Computer Science and Brain Theory.

Chronology of Employment
Note: * indicates employment as graduate student

*1990 - 1996   **Research assistant** (Dr. C. von der Malsburg, U.S.C.): Neural network self-organization applied to human face recognition.

*1992 - 1995   **Teaching assistant** in the Biology Department at the University of Southern California for the undergraduate classes Bio-307 and Bio-306 (general human physiology), CSCI-301 (formal language theory), Bio-106 (introductory biology).

1999 - 2002   **Lecturer** in the Cognitive Science Department, University of California, San Diego. Teaching of 'Cognitive Neuroscience' (Cog.Sci. 17), lower-level undergraduate division.

1996 - 1997   S**loan Postdoctoral Fellow** in Biology, Brandeis University, Boston, MA. Dr. J. Lisman's laboratory (Neuroscience) and Dr. L. Zebrowitz's Laboratory (Psychology).

1997 - 2004   **Howard Hughes Medical Institute Research Associate (postdoctoral fellow),** the Salk Institute, La Jolla, CA. Terrence J. Sejnowski laboratory (Neurobiology)

2004 - 2006   **Assistant Professor.** Joint appointment in the Departments of Biomedical Engineering and Center for Cognitive Neuroscience, Duke University, Durham, NC.

2006 – 2017   **Associate Professor** in the Department of Psychology and Applied Mathematics Graduate Interdisciplinary Program. University of Arizona, Tucson, AZ.

3/2012 – 7/2012   **Feinberg Foundation Visiting Faculty Program Fellow**. Weizmann Institute of Science, Rehovot, Israel.

6/2013 – 12/2013   **Sabbatical**. Weizmann Institute of Science, Ulanovsky laboratory, Rehovot, Israel

6/2015 – Present   **Affiliate Faculty** Sagol Department of Neurobiology, University of Haifa, Israel.

2017 – Present   **Professor** in the Department of Psychology and Applied Mathematics Graduate Interdisciplinary Program. University of Arizona, Tucson, AZ.

Service/Outreach

Local/State:

2007	Acting Director: Neural System Memory and Aging. Arizona Research Laboratory
9/2007 - 5/2008	Interim organizer of the Neuroscience Datablitz meeting
10/2007 - present	President of the Society for Neuroscience local chapter
2007 - present	Member of the Applied Mathematics, Neuroscience and Cognitive Science GIDPs
2008	Organizer: Brain awareness week
2008	Organizer: Halloween event (Spooky brains, Flandrau Center)
2008 - present	Affiliate member of the Biomedical Engineering GIDP, member of the Physiological Sciences GIDP
2009	Organizer: Brain awareness week
2009 - present	Organizer and Director: Senior Neuroscience Research Fellowship program (involving elders 55 and older in neuroscience research).
2010	Organizer: Brain awareness week
5/2010	Organizer of the symposium 'Multidisciplinary approaches to understanding the Mind and Brain', University of Arizona, May 9-11, 2010.
2010	Review committee of small grant proposals. Center for Insect Science.
2011	Organizer: Brain awareness week
2013	Organizer: Brain awareness week
2014	Organizer: Brain awareness week
2015	Organizer: Brain awareness week
2016	Organizer: Brain awareness week
2017	Organizer: Brain awareness week

National/International:

2006 - 2012	Member Elect of the Board of Directors of the Computational Neuroscience Organization
2006	Panelist for the National Defense Science and Engineering Graduate Fellowship
2007 - present	Panelist for the National Science Foundation Graduate Fellowship program
2007 - 2010	Panelist for the National Defense Science and Engineering Graduate Fellowship
2007	Organizer: Student poster awards chair at the Computational Neuroscience meeting
2008	Organizer: Student poster awards chair at the Computational Neuroscience meeting
2008 - present	Panelist for the NSF Collaborative Research in Computational Neuroscience program
2009 - 2014	Associate editor for *IEEE Transactions on Affective Computing*
2009	Organizer: Student poster awards chair at the Computational Neuroscience meeting
2013 - present	Editorial Board member and editor for *Neural Networks*
2014 - present	Panelist for the NIH, NRSA pre/postdoctoral fellowship awards
2016 - present	Panelist for NSF NeuroNex grant award panels
2016 - present	Panelist for NIH Brain Initiative Special Emphasis
2017	Program committee member Computational Modelling of Emotion: Theory and Applications. Univ of Bath, UK

Ad hoc Reviewer for the following journals:
Nature, Science, the Journal of Neuroscience, the Journal of Physiology, Neuroscience, Psychological Reviews, Cerebral Cortex, Hippocampus, IEEE Spectrum, Vision Research, IEEE Transactions in Pattern Analysis and Machine Intelligence, IEEE Transactions on Evolutionary Computation, Network: computation in neural systems, Neural Computation, the Journal of Computational Neuroscience, Neurocomputing, Cognitive Neurodynamics, Learning and Memory, the Canadian Journal of Experimental Psychology, the Journal of Neurophysiology, Journal of Applied Physiology.

Reviewer for the following funding agencies:
National Science Foundation, National Institute of Health, US Department of Defense, US-Israel Binational Science Foundation (Israel), Israel Science Foundation (Israel), German-Israeli Foundation for Research and Development, Agence Nationale de la Recherche (France), Neurological Foundation of New Zealand (New Zealand), Nederlandse organisatie voor wetenschappelijk onderzoek (Dutch organization for scientific research). Ad hoc reviewer for various internal UA grants.

Departmental Committees:

2008	School of Neuroscience reorganization committee
2009 - 2011	Curriculum committee of the Department of Neuroscience
2009 - 2011	Executive committee of the graduate interdisciplinary program in Neuroscience
2009 - 2010	Applied Mathematics self-study Academic Program Review committee
2009	Psychology faculty recruiting committee
2009	Undergraduate in Biology Research Program admission committee
2010	Admission committee of the graduate interdisciplinary program in Neuroscience
2010 - 2013	Undergraduate Curriculum committee (Department of Psychology)
2010 - 2011	Annual Program Review: collaboration and outreach committees (Department of Psychology)
2010 - 2012	Undergraduate studies committee (Department of Neuroscience)
2011	Admission committee of the graduate interdisciplinary program in Neuroscience
2014	Search committee for faculty position (Department of Psychology)
2015 - present	Member Research Committee (Department of Psychology)

College Committee: none

University Committee:

2015 – present	Member Committee on Postdoctoral Studies. Consultant to the Faculty Director of the Graduate Center

Other Committees: none

Publications/Creative Activity
Note: * indicates work performed as a graduate student.

<u>Scholarly Books and Book Chapters</u>

Books
1. **Fellous JM and Arbib MAA** (Editors). Who needs emotions? The brain meets the Robot. Oxford University Press, 2005.

Book chapters
*1. **LeDoux JE and Fellous JM**. Emotion and Computational Neuroscience. In: *The Handbook of Brain Theory and Neural Networks*, edited by Arbib MA: M.I.T. Press, p. p356-359, 1995.
2. **Fellous JM, Johnston T, Segal M and Lisman JE**. Carbachol-Induced rhythms in the hippocampal slice: Slow (.5-2Hz), Theta (4-10Hz) and Gamma (80-100Hz) Oscillations. In: *Computational Neuroscience: Trends in Research*, edited by Bower JM. New York: Plenum, p. 367-372, 1998.
3. **Fellous JM, Armony J and LeDoux JE**. Emotion and Computational Neuroscience. In: *The Handbook of Brain Theory and Neural Networks*, second edition, edited by Arbib MA: M.I.T. Press, p398-401, 2003.
4. **Fellous JM and Suri R**. The Roles of Dopamine. In: *The Handbook of Brain Theory and Neural Networks*, second edition, edited by Arbib MA: M.I.T. Press, p361-365, 2003.
5. **Fellous JM and LeDoux JE.** Towards basic principles for emotional processing: What the fearful brain tells the robot. In *Who Needs Emotions? The brain meets the Robot*. Fellous JM and Arbib MAA (Editors), Oxford University Press, p79-115, 2005.
6. **Gunay C, Smolinski TG, Lytton WW, Morse TM, Gleeson P, Crook S, Steuber V, Silver A, Voicu H, Andrews P, Bokil H, Maniar H, Loader C, Mehta S, Kleinfeld D, Thomson D, Mitra PP, Aaron G, Fellous JM.** A method for discovering spatio-temporal spike patterns in multi-unit recordings**.** In computational Intelligence in Electrophysiology: Trends and Open Problems. In: Smolinski TG, Milanova MG, Hassanien A-E (eds), Applications of Computational Intelligence in Biology: Current Trends and Open Problems, Chapter XIV, Springer, p325-359, 2008.
7. **Navratilova, Z. and Fellous JM.** A Biophysical Model of Cortical Up and Down States: Excitatory and Inhibitory Balance and H-Current. In *Dynamic Brain- From Neural Spikes to Behaviors*, Maria Marinaro, Silvia Scarpetta and Yoko Yamaduchi (Eds). Lecture Notes in Computer Science, Springer, p61-66, 2008.
8. **Fellous JM, Sejnowski TJ, Navratilova Z**. Intrinsic and Network Contributions to Reverberatory activity: Reactive Clamp and Modeling Studies. In *The Dynamic-clamp: from principles to applications*. Destexhe A. and Bal T (eds), Springer, p237-260, 2009.
9. **Fellous JM.** Emotion: Computational Modeling. In *the Encyclopedia of Neuroscience*. L.R. Squire (ed.) Oxford Academic Press, Vol 3, p909-913, 2009..
10. **Fellous JM and Johnson D**. Senior editors. Proceedings of the Computational Neuroscience Meeting, CNS*2010. Special issue of *BioMed Central Neuroscience 11:Suppl-1*, 2010 – Open Access publisher (http://www.biomedcentral.com/bmcneurosci/)
11. **Fellous JM and Astrid Prinz**. Senior editors. Proceedings of the Computational Neuroscience Meeting, CNS*2011. Special issue of *BioMed Central Neuroscience 12:Suppl-1*, 2011 – Open Access publisher (http://www.biomedcentral.com/bmcneurosci/)
12. **Fellous JM and Astrid Prinz**. Senior editors. Proceedings of the Computational Neuroscience Meeting, CNS*2012. Special issue of *BioMed Central Neuroscience 13:Suppl-1*, in press 2012 – Open Access publisher (http://www.biomedcentral.com/bmcneurosci/)
13. **Fellous JM, Canavier C and Hasselmo M**. Neuromodulation: Increasing Computational Power. In 'From Brain to Cognition via Computational Neuroscience' (M.A. Arbib, editor). Fall 2016.

Peer-reviewed journal articles

*1. **Wiskott L, Fellous JM, Kruger N and von der Malsburg C**. Face Recognition by Elastic Bunch Graph Matching. *IEEE spectrum* 19: 775-779, 1997.

*2. **Fellous JM**. Gender discrimination and prediction on the basis of facial metric information. *Vision Research* 37: 1961-1973, 1997.

3. **Lisman JE, Fellous JM and Wang X-J**. A role for NMDA-receptor channels in working memory. *Nature Neuroscience* 1: 273-275, 1998.

4. **Fellous JM and Linster C**. Computational models of neuromodulation. *Neural computation* 10: 771-805, 1998.

5. **Fellous JM**. The neuromodulatory basis of emotion. *The Neuroscientist* 5: 283-294, 1999.

6. **Fellous JM and Sejnowski TJ**. Cholinergic induction of oscillations in the hippocampal slice in the slow (0.5-2 Hz), theta (5-12 Hz), and gamma (35-70 Hz) bands. *Hippocampus* 10: 187-197, 2000.

7. **Houweling AR, Modi RH, Ganter P, Fellous JM and Sejnowski TJ**. Models of frequency preferences of cortical pyramidal cells and interneurons. *Neurocomputing,* Vol 38-40, pp 231-238, 2001.

8. **Scheler G and Fellous JM**. Dopamine modulation of prefrontal delay activity- Reverberatory activity and sharpness of tuning curves. *Neurocomputing,* 38-40: 1549-1556, 2001.

9. **Tiesinga PHE, Fellous JM, Jose JV and Sejnowski TJ**. Optimal information transfer in synchronized neocortical neurons. *Neurocomputing,* 38-40: 397-402, 2001.

10. **Tiesinga PHE, Fellous JM, Jose JV and Sejnowski TJ**. Computational model of carbachol-induced delta, theta and gamma oscillations in the hippocampus. *Hippocampus* 11: 251-274, 2001.

11. **Fellous JM, Houweling AR, Modi RH, Rao RPN, Tiesinga PHE and Sejnowski TJ**. Frequency dependence of spike timing reliability in cortical pyramidal cells and interneurons. *J Neurophysiology* 85:1782-1787, 2001.

12. **Blanchard C, Blanchard R, Fellous JM, Guimaraes FS, Irwin W, LeDoux JE, McGaugh JL, Rosen, JB, Schenberg LC, Volchan E and Da Cunha C.** The brain decade in debate: III. Neurobiology of emotion. *Brazillian journal of medical and biological research*, 34:283-293, 2001.

13. **Destexhe A, Rudolph M, Fellous JM and Sejnowski TJ**. Fluctuating synaptic conductances recreate in-vivo-like activity in neocortical neurons. *Neuroscience*, 107(1):13-24, 2001.

14. **Tiesinga PHE, Fellous JM, Jose JV and Sejnowski TJ**. Information transfer in entrained cortical neurons. *Network: Computation in Neural System*, 13:41-61, 2002.

15. **Tiesinga PHE, Fellous JM and Sejnowski TJ.** Attractor reliability reveals deterministic structure in neuronal spike trains, *Neural Computation*, 14:1629-1650, 2002.

16. **Tiesinga PHE, Fellous JM, Sejnowski TJ.** Spike-time reliability of periodically driven integrate and fire neurons. *Neurocomputing*, 44-46: 195-200, 2002.

17. **Schreiber S, Whitmer D, Fellous JM, Tiesinga PHE, Sejnowski TJ.** A new correlation-based measure of spike timing reliability. *Neurocomputing*, 52–54: 925– 931, 2003.

18. **Thomas PJ, Tiesinga PHE, Fellous JM, Sejnowski TJ.** Reliability and Bifurcation in Neurons Driven by Multiple Sinusoids. *Neurocomputing*, 52–54: 955– 961, 2003.

19. **Zebrowitz LA, Fellous JM, Mignault A and Andreoletti C**. Trait Impressions as Overgeneralized Responses to Adaptively Significant Facial Qualities: Evidence from Connectionist Modeling. *Journal of Personality and Social Psychology*, 7(3):194-215, 2003.

20. **Fellous JM and Sejnowski TJ**. Regulation of persistent activity by background inhibition in an *in vitro* model of a cortical microcircuit. *Cerebral Cortex,* 13:1232-1241, 2003.

21. **Fellous JM, Rudolph M, Destexhe A and Sejnowski TJ**. Synaptic background noise controls the input/output characteristics of single cells in an in vitro model of in vivo activity. *Neuroscience*, 122:811-829, 2003.

22. **Schreiber S, Fellous JM, Tiesinga PHE and Sejnowski TJ**. Influence of ionic conductances on spike timing reliability of cortical neurons for suprathesold rhythmic inputs. *J Neurophysiology*, 91:194-205, 2004.

23. **Tiesinga PHE, Fellous JM, Salinas E, Jose JV, Sejnowski TJ**. Synchronization as a mechanism for attentional gain modulation. *Neurocomputing*, 58-60: 641-646, 2004.

24. **Fellous JM, Tiesinga PHE, Thomas PJ and Sejnowski TJ**. Discovering spike patterns in neuronal responses. *Journal of Neuroscience*, 24(12):2989-3001 2004.

25. **Arbib MA and Fellous JM**. Emotions: From Brain to Robot. *Trends in Cognitive Science,* 8(12):554-561, 2004.

26. **Tiesinga PHE, Fellous JM, Salinas E, Jose JV and Sejnowski TJ**. Inhibitory Synchrony as a mechanism for attentional gain modulation, *The Journal of Physiology* (Paris), 98:296-314, 2004.

27. **Bazhenov M, Rulkov NF, Fellous JM, Timofeev I**. Role of network dynamics in shaping timing reliability. *Physical Review E*. 72,041903, 2005.

28. **Fellous JM**. A Mechanistic View of the Expression and Experience of Emotion in the Arts. *American Journal of Psychology*. 119(4): 668-674, 2006.

29. **Mishra J, Fellous JM, Sejnowski TJ**. Selective Attention through Phase Relationship of Excitatory and Inhibitory Input Synchrony in a Model Cortical Neuron. *Neural Network*. 19:1329-1346, 2006.

30. **Polikov VS, Block ML, Fellous JM, Hong JS and Reichert WM**. In vitro model of glial scarring around neuroelectrodes chronically implanted in the CNS. *Biomaterials,* 27:5368–5376, 2006.

31. **Zebrowitz LA, Kikuchi M and Fellous JM.** Are effects of emotion expression on trait impression mediated by babyfaceness? Evidence from connectionist modeling. *Personality and Social Psychology Bulletin*. 33:648-662, 2007.

32. **Tiesinga PHE, Fellous JM, Sejnowski TJ.** Regulation of spike timing in visual cortical circuits. *Nature Reviews Neuroscience*, 9:97-109, 2008.

33. **Paulk AC, Phillips-Portillo J, Dacks AM, Fellous JM and Gronenberg W**. The processing of color, motion, and stimulus timing are anatomically segregated in the bumblebee brain. *The Journal of Neuroscience*, 28(25):6319-32, 2008.

34. **Tatsuno M, Fellous JM and Amari S**. Information geometric measures as robust estimators of connection strengths and external inputs, *Neural Computation,*21(8):2309-2335, 2009.

35. **Paulk AC, Dacks AM, Phillips-Portillo J, Fellous JM and Gronenberg W**. Visual processing in the central bee brain, *The journal of Neuroscience*, 29(32):9987-9, 2009.

36. **Zebrowitz LA, Kikuchi M and Fellous JM.** Facial Resemblance to Emotions: Group Differences, Impression Effects, and Race Stereotypes. *Journal of Personality and Social Psychology,* 98(2):175-89, 2010.

37. **Stiefel K, Thomas PJ , Fellous JM and Sejnowski TJ**. Intrinsic Sub-threshold Oscillations Extend the Influence of Inhibitory Synaptic Inputs on Cortical Pyramidal Neurons, *The European journal of Neuroscience, 31:1019-1026, 2010*.

38. **Samson RD, Frank MJ, Fellous JM.** Computational models of reinforcement learning: the role of dopamine as a reward signal. *Cognitive Neurodynamics,* 4:91-10, 2010.

39. **Wang H-P, Spencer D, Fellous JM, Sejnowski TJ**. Synchrony of thalamocortical inputs maximizes cortical reliability. *Science*, 328:106-109, 2010.

40. **Toups JV, Fellous JM, Thomas PJ, Sejnowski TJ, Tiesinga PH**. Finding the event structure of neuronal spike trains. *Neural Computation*. 23(9):2169-208, 2011.

41. **Lyttle D and Fellous JM.** A new similarity measure for spike trains: Sensitivity to bursts and periods of inhibition. *J Neuroscience Methods*, 99(2):296-309, 2011.

42. **Watkins L, Gereke B, Martin GM, Fellous JM.** The traveling salesrat: insights into the dynamics of efficient spatial navigation in the rodent. *J Neural Engineering*, 8(6) 2011.

43. **Jones B, Bukoski E, Nadel L and Fellous JM**. Remaking memories: reconsolidation updates positively motivated spatial memory in rats. *Learning & Memory*. 19(3):91-8, 2012.

44. **Navratilova Z, Giocomo LM, Fellous JM, Hasselmo ME, and McNaughton BL**. Phase Precession and Variable Spatial Scaling in a Periodic Attractor Map Model of Medial Entorhinal Grid Cells with Realistic After-Spike Dynamics. *Hippocampus*. 22:772-789, 2012.

45. **Toups JV, Fellous JM, Thomas, PJ, Sejnowski TJ and Tiesinga PH**. Multiple Spike Time Patterns Occur at Bifurcation Points of Membrane Potential Dynamics. *PLoS Computational Biology*. 8(10): e1002615, 2012.

46. **Corral-Frias NS, LaHood R, Vogelsang K, French ED, Fellous JM**. Involvement of the ventral tegmental area in a rodent model of post-traumatic stress disorder. *NeuroPsychoPharmacology* 38(2): 350-63, 2013.

47. **Franklin RG Jr., Zebrowitz LA, Fellous JM, Lee A**. Generalizing from human facial sexual dimorphism to sex-differentiate macaques: Accuracy and cultural variation. *Journal of Experimental Social Psychology*. 49(3): 344-348, 2013.

48. **Lyttle D, Gereke B, Lin KK and Fellous JM**. Spatial scale and place field stability in a modular grid-to-place cell model of the dorsoventral axis of the hippocampus. *Hippocampus*. 8:729-44, 2013.

49. **Greene P, Howard M, Bhattacharyya R and Fellous JM**. Hippocampal Anatomy Supports the Use of Context in Object Recognition: a Computational Model. *Computational Intelligence and Neuroscience*. Volume 2013, Article ID 294878, 19 pages, 2013.

50. **Stidd D, Vogelsang K, Krahl S, Langevin JP and Fellous JM**. Amygdala Deep Brain Stimulation is Superior to Paroxetine Treatment in a Rat Model of Posttraumatic Stress Disorder. *Brain Stimulation*, 6(6):837-44, 2013.

51. **Song M and Fellous JM**. Value learning and arousal in the extinction of probabilistic rewards: the role of dopamine in a modified temporal difference model. *PLOS biology*. 9(2): e89494. doi:10.1371, 2014.

52. **Nie Y, Fellous JM and Tatsuno M**. Information-geometric estimation of neural interactions during oscillatory brain states. *Frontiers in Neural Circuits*. 8(11), doi: 10.3389, 2014.

53. **Nie Y, Fellous JM and Tatsuno M**. Influence of External Inputs and Asymmetry of Connections on Information-Geometric Measures Involving up to Ten Neuronal Interactions. *Neural Computation*, 26(10):2247-2293, 2014.

54. **Fellous JM and Corral-Frias N**. Reliability and Precision are Optimal for Non-uniform Distributions of Presynaptic Release Probability. *Journal of Biomedical Science and Engineering*. 8(3):170-183, 2015.

55. **Jones BJ, Pest SM, Vargas IM, Glisky EL and Fellous JM**. Contextual Reminders Fail to Trigger Memory Reconsolidation in Aged Rats and Aged Humans. *Neurobiology of Learning and Memory*. Apr;120:7-15. doi: 10.1016/j.nlm.2015.02.003, 2015

56. **Valdes JV, McNaughton BL and Fellous JM**. Off-Line Reactivation of Experience-Dependent Neuronal Firing Patterns in Rat Ventral Tegmental Area. *The Journal of Neurophysiology*. 114(2):1183-95, 2015

57. **Llofriu M, Tejera G, Contreras M, Pelc T, Fellous JM and Weitzenfeld A**. Goal-Oriented Robot Navigation Learning using a Multi-Scale Space Representation. *Neural Networks*, 72:62-74, 2015.

58. **Corral-Frías NS, Nadel L, Fellous JM and Jacobs JW.** Behavioral and Self-Reported Sensitivity to Reward are Linked to Stress-Related Differences in Positive Affect. *PsychoNeuroEndocrinology*. 66:205-213, 2016.

59. **Malerba P, Krishnan GP, Fellous JM and Bazhenov M**. Hippocampal CA1 Ripples as Inhibitory Transients. *PLOS Computational Biology*, 12: e1004880, 2016.

60. **Janezic EM, Uppalapati S., Nagl S., Contreras M., French ED, Fellous JM.** Beneficial Effects of Chronic Oxytocin Administration and Social Co-Housing in a Rodent Model of Post-Traumatic Stress Disorder. *Behavioral Pharmacology.* 27(8):704-717, 2016.

61. **Lines, J., Nation K. and Fellous JM**. Dorso-Ventral and Proximo-Distal Hippocampal Processing Account for the Influences of Sleep and Context on Memory (Re)consolidation: A Connectionist Model. *Computational Intelligence and Neuroscience*. In press, 2017

Electronic publications
1. **Fellous JM**. Models of Emotion. Scholarpedia, 2(11):1453, 2007. http://www.scholarpedia.org/article/Models_of_emotion

Submitted

1. **Nagl S, Jones B, Tatsuno M and Fellous JM**. Sharp Wave Ripple Complexes Correlate with Context-Dependent Separation of Memories in a Rodent Reconsolidation Task.

2. **Gianelli S, Harland B and Fellous JM**. A Rat-compatible Robotic Framework for Behavioral Neuroscience Experiments.

3. **Llofriu M, Tejera G, Contreras M, Pelc T, Fellous JM, Weitzenfeld A**. A Computational Model of the Differential Roles of the Rat Hippocampus along its Longitudinal Axis during Navigation in Dynamic Environments.

In Preparation (submission in 2017)

1. **Tatsuno M and Fellous JM.** Long term reactivation dynamics of multiple assemblies in hippocampus and prefrontal cortex.

2. **Contreras M, Llofriu M, Weitzenfeld A and Fellous JM**. Differential role for ventral and dorsal hippocampus in multi-goal obstacle-laden spatial navigation.
3. **Harper B. and Fellous JM**. Co-Occurrence of Hippocampal Sharp Wave Ripple Complexes and Prefrontal Sleep Spindles.
4. **Pelc T. Dominey P. Weitzenfeld A. and Fellous JM**. Neurophysiological correlates of spatial navigation optimization in the rodent

Media

6. **KXCI** (2015-present) radio: Series of interviews on thesis projects in the laboratory. https://kxci.org/
5. **UA now**: Interview (5/2010, with Tony Lewis). 'Robots: One Day They'll Walk Your Dog, Do Your Dishes and Tutor Your Kids'. http://uanews.org/node/31856
4. **UA now:** Interview (5/2010): UA Researchers and Students to Educate the Public on Healthy Brain Activities. http://uanews.org/node/30583
3. **SFN featured chapter website** (5/2010): Written piece. 'Chapter Showcase'. http://www.sfn.org/index.aspx?pagename=Chapters_Showcase
2. **UA now**: Interview (7/2009). 'Neuroscience Researchers Seek Interns ages 55 and Up' http://uanews.org/node/26502
1. **National Public Radio** interview (10/2008): All things considered, 'New program maps virtual rat brain in 3D'. http://www.npr.org/templates/story/story.php?storyId=97274006

Scholarly Presentations

Conferences
Note: + indicates peer-reviewed abstracts, * indicates work as a graduate student.

*1. **Shams L, Fellous JM and von der Malsburg C**. A Comparative Study of Gabor and Pixel Representations in Original and PC Spaces. *World Congress on Neural Networks*, Washington DC, 1995.
*2. **Fellous JM**. A M.I.M.D. Implementation for Multi-Level Neural Modeling. *World Congress in Neural Networks*, Washington, D.C., 1995.
*3. **Fellous JM and Hudlicka E**. Using the World-Wide-Web as a tool for an interdisciplinary approach to the scientific study of emotion. *Society for Neuroscience*, Washington D.C., 1996, p. 246.
4. **Fellous JM and Lisman JE**. Working memory mediated by NMDA channels: Implications for Schizophrenia. *Society for Neuroscience*, New Orleans, 1997, p. 776.
5. **Fellous JM and Sejnowski TJ**. The involvement of CA1 and CA3 in Carbachol-induced oscillations in the hippocampal slice. *Society for Neuroscience*, Los Angeles, CA, 1998.
6. **Fellous JM, Houweling AR, Modi RH, Rao RPN and Sejnowski TJ**. Spike timing reliability in the prefrontal cortex depends on the frequency content of its synaptic inputs. *Society for Neuroscience*, Miami, 1999, p. 885.
7. **Fellous JM, Destexhe A and Sejnowski TJ**. Dynamic clamp of cortical neurons in vitro simulates in vivo activity patterns. *Society for Neuroscience*, New Orleans, 2000, p. 1623.
8. **Tiesinga PHE, Fellous JM, Jose JV and Sejnowski TJ**. Computational model of carbachol-induced delta, theta and gamma oscillations in the hippocampus. *Society for Neuroscience*, New Orleans, 2000.
9. **Jose JV, Tiesinga PHE, Fellous JM and Sejnowski TJ**. Entrainment by synchronized inhibition boosts information transfer in neocortical neurons. *Society for Neuroscience*, New Orleans, 2000.
+ 10. **Scheler, G and Fellous, JM**. Impairment of decision-making in prefrontal cortex by a low dopaminergic tone: A computational model. *Journal of Cognitive Neuroscience*. P30E, 2000.

11. **Zebrowitz LA and Fellous, JM**. Trait Impressions of Neutral Expression Faces Predicted from Connectionist Modeling of Facial Metric Information from Angry and Happy Faces. *Feelings and Emotions: The Amsterdam Symposium*, the Netherlands June 13-16, 2001.

12. **Fellous JM and Sejnowski TJ**. Dopamine facilitates the sustained firing of rat layer V prefrontal pyramidal cells in vitro. *Society for Neuroscience*, San Diego, 2001.

13. **Tiesinga PHE, Thomas P, Fellous JM, Sejnowski TJ**. Reliability, precision and the neuronal code. *Society for Neuroscience*, San Diego, 2001.

14. **Jose JV, Tiesinga PHE, Fellous JM, Salinas E, Sejnowski TJ**. Synchronization as a mechanism for attentional modulation. *Society for Neuroscience*, San Diego, 2001.

15. **Jose JV, Tiesinga PHE, Fellous JM, Salinas E, Sejnowski TJ**. Is attentional gain modulation optimal at gamma frequencies? *Society for Neuroscience* 55.6, Orlando, FL, 2002.

16. **Fellous JM, Schreiber S, Tiesinga PHE, Sejnowski TJ**. Modulation of the Frequency Preference and Attractor Structure of Prefrontal Cortical Neurons. *Society for Neuroscience* 445.19, Orlando, FL, 2002.

17. **Fellous JM, Spencer D, Wang HP, Junek S, Eagleman DM, Sejnowski TJ**. Firing reliably with unreliable synapses. *Society for Neuroscience*, New Orleans, 2003.

18. **Stiefel KM**, **Fellous JM, Sejnowski TJ**. Interaction of sub-threshold Oscillations with Synaptic Inputs in the Cortex. *Society for Neuroscience*, New Orleans, 2003.

19. **Thomas PJ, Fellous JM, Tiesinga PHE, Sejnowski TJ**. Experimental characterization of single neuron spike-time patterns. *Society for Neuroscience*, New Orleans, 2003.

20. **Mishra J, Fellous JM, Sejnowski TJ**. A Biophysical Neuronal Model Exploring Attention Mechanisms in Visual Cortex. *Society for Neuroscience*, San Diego, 2004.

21. **Toups JV, Fellous JM and Tiesinga PH**. Statistical validation of spike patterns revealed by fuzzy clustering algorithms. *Society for Neuroscience*, San Diego, 2004.

22. **Wang HP, Fellous JM, Spencer DJ, and Sejnowski TJ**. Reliability of V1 Cell Responses to Thalamic Natural Stimulus Inputs. *Society for Neuroscience*, Washington DC, 2005.

23. **Buntaine A, Hoang V, Bhanpuri N and Fellous JM**. Stochastic synaptic transmission in Hippocampus and Cortex. *Society for Neuroscience*, Atlanta, 2006.

24. **Lipa P, Tatsuno M, Amari S, McNaughton BL and Fellous JM.** A Novel Analysis Framework for Characterizing Ensemble Spike Patterns Using Spike Train Clustering and Information Geometry. *Society for Neuroscience*, Atlanta, 2006.

25. **Toups JV, Fellous JM, Thomas PJ, Tiesinga PHE and Sejnowski TJ**. Stability of in vitro spike patterns under variation of stimulus amplitude. *Society for Neuroscience*, Atlanta, 2006.

+26. **Buntaine A, Corral-Frias N and Fellous JM.** Emergence of reliable spike patterns in models of CA1 cells contacted by unreliable synapses. *Computational Neuroscience*, Toronto, CA, 2007, and *BMC Neuroscience* 2007, 8(Suppl 2):P71.

27. **Tatsuno M, Lipa P, McNaughton BL, Fellous JM**. Dynamics of Neural Assemblies Involved in Memory-Trace Replay. *Society for Neuroscience*, San Diego, 2007.

28. **Navratilova Z and Fellous JM**. A Biophysical Model of Cortical Up and Down States: Roles of Excitatory and Inhibitory Balance and H Current. *Society for Neuroscience*, San Diego, 2007.

29. **Jones B, McClung A, Hupbach A, Hardt O, Gomez R, Nadel L and Fellous JM**. Dynamics of sequence learning in rats: The influence of reminders and training by blocks. *Society for Neuroscience*, San Diego, 2007.

+30. **Corral-Frias N, Buntaine A and Fellous JM**. ¿Teléfono descompuesto en el cerebro?:Patrones precisos de actividad neural en CA1 a partir de sinapsis no confiables. Modelando una explicación. XV Congreso Mexicano de Psicología, Hermossilo, MX, 2007. **Winner of the best poster of the meeting**.

31. **Wang HP, Spencer DJ, Fellous JM and Sejnowski TJ.** Synchronous Thalamic Inputs Drive Cortical Neurons Reliably with Balanced Excitatory and Inhibitory Inputs. *Society for Neuroscience*, San Diego, 2007.

+32. **Navratilova Z, Fellous JM, McNaughton BL**. Intrinsic current generated, omnidirectional phase precession and grid field scaling in toroidal attractor model of medial entorhinal path integration. *Computational Neuroscience*, Portland OR, 2008.

33. **Hoang LT, Fellous JM, Barnes CA**. Expression of the immediate-early gene Arc in rat ventral tegmental neurons during aging. *Society for Neuroscience*, Washington DC, 2008.

34. **Valdes JL, McNaughton BL and Fellous JM**. Reactivation of populations of ventral tegmental area neurons in the rat. *Society for Neuroscience*, Washington DC, 2008.

35. **Corral-Frias NS, Valdes JL, Fellous JM, French ED**. Latent effects of inescapable footshock on Ventral Tegmental Area dopamine cell excitability. *Society for Neuroscience*, Washington DC, 2008.

36. **Zimmerman P, Alves C, Fellous JM, Gibboni R, Laine C, Mosher C, Wood K, Gothard K**. Visual exploration of conspecifics faces during sex discrimination. *Society for Neuroscience*, Washington DC, 2008. Withdrawn.

37. **Navratilova Z, Fellous JM, McNaughton BL**. Intrinsic current based phase precession in a toroidal attractor model of path integration in medial entorhinal cortex (MEC) grid cells: effects of speed input and intrinsic current time constants. *Society for Neuroscience*, Washington DC, 2008.

38. **McNaughton BL, Hoang LT, Valdes JL, Maurer AP, Burke SN, Fellous JM**. Distinct characteristics of CA1 place cells correlated with medial or lateral entorhinal cortex layer III input. *Society for Neuroscience*, Washington DC, 2008.

39. **Toups JV, Fellous JM, Sejnowski TJ and Tiesinga PH**. Heuristics for revealing the event structure of neuronal spike trains. *Society for Neuroscience*, Washington DC, 2008.

40. **Corral-Frias NS, Valdes JL, French ED, Fellous JM**. Efectos latentes del estrés en ratas: Influencia en la excitabilidad de células dopaminérgicas del área tegmental ventral. *XVI Congreso Mexicano de Psicología* Monterrey, Nuevo León, México, 10/2008.

41. **Cook SJ, Corral-Frias NS, Cremer J, Valdes JL, Fellous JM**. Learning to give up! The contribution of the rodent dopaminergic system to extinction. *Society for Neuroscience*, Chicago IL, 2009.

42. **Powell GL, Pilarski JQ, Fregosi RF, Fellous JM**. Development of a network model to predict alterations in PreBötzinger Complex neurons caused by prenatal nicotine exposure. *Society for Neuroscience*, Chicago IL, 2009.

43. **Corral-Frias NS, Cremer JK, Valdes JM, French ED, Fellous JM**. Role of the ventral tegmental area in anxiety disorders: electrophysiological and reversible inactivation studies in a rodent model of posttraumatic stress disorder. *Society for Neuroscience*, Chicago IL, 2009.

44. **Jones B, Nadel L and Fellous JM**. Re-making memories: A novel paradigm to study memory reconsolidation in rats. *Society for Neuroscience*, Chicago IL, 2009.

45. **HP Wang , DJ Spencer, JM Fellous, TJ Sejnowski**. Reliable Transmission of Visual Inputs into Cortex Depends on Thalamic Synchrony. *Society for Neuroscience*, Chicago IL, 2009.

46. **L Watkins, GM Martin, JM Fellous** The Traveling Salesrat: Insights into optimal spatial navigation and the role of the dopaminergic system. *Society for Neuroscience*, Chicago IL, 2009.

+47. **PJ Thomas, JV Toups, JM Fellous, TJ Sejnowski and P Tiesinga**. Multiple spike time patterns occur at bifurcation points of membrane potential dynamics. *Computational and SYstems Neuroscience*, Salt Lake city, Utah, 2010.

48. **M Song, SJ Cook, N Corral-Frías and JM Fellous.** The role of the ventral tegmental area in the extinction of probabilistic events. *Society for Neuroscience*, San-Diego, CA, 2010.

49. **D Lyttle, JM Fellous**. Analyzing spike train similarity measures: the effects of bursts and silence. *Society for Neuroscience*, San-Diego, CA, 2010.

50. **NS Corral-Frias, SW Brookshire, K. Edelman-Vogelsang, JL Valdes, ED French and JM Fellous**. Behavioral and electrophysiological studies of the Ventral Tegmental Area after trauma. *Society for Neuroscience*, San-Diego, CA, 2010.

51. **B Jones, E Bukoski, L Nadel, JM Fellous**. The effects of aging on spatial memory reconsolidation in rats. *Society for Neuroscience*, San-Diego, CA, 2010.

52. **L Watkins de Jong, B Gereke, NS Corral-Frias, K Scott, G Martin, JM Fellous**. The role of the dopaminergic system in optimal spatial navigation. *Society for Neuroscience*, San-Diego, CA, 2010.

+53. **JL Valdés , B McNaughton, JM Fellous**. Experience-dependent Reactivations of Ventral Tegmental Area Neurons in the Rat. *Computational Neuroscience*, Stockholm Sweden, 2011.

+54. **P Tiesinga, JM Fellous, TJ Sejnowski, V Toups, P Thomas.** Finding the event structure of neuronal spike trains. *Computational Neuroscience*, Stockholm Sweden, 2011.

55. **ME Waterkotte, M Song, JM Fellous**. The effect of caffeine on the extinction of probabilistic rewards. *Society for Neuroscience*, Washington DC, 2011.

56. **D.A. Stidd, J.P. Langevin, JM Fellous**. Effect of intraperitoneal paroxetine in a rat model of posttraumatic stress disorder. *Society for Neuroscience*, Washington DC, 2011.

57. **K Edelman-Vogelsang, R LaHood, NS Corral-Frias, ED French, JM Fellous.** Sex Differences in a Rat Model of PTSD. *Society for Neuroscience*, Washington DC, 2011.

58. **NS Corral-Frias, WJ Jacobs, L Nadel , JM Fellous.** Reward as a resilience factor: Responses to Psychosocial Stress. *Society for Neuroscience*, Washington DC, 2011.

59. **B Gereke, RJ Compton, JM Fellous.** Sex Differences in Rodent Optimal Spatial Navigation: Influences of Estrous Cycle and Object Cues in the Traveling Salesperson Problem. *Society for Neuroscience*, Washington DC, 2011.

60. **MD Howard, R Bhattacharyya, RC O'Reilly, G Ascoli and JM Fellous.** Adaptive Recall in Hippocampus. *Biologically Inspired Cognitive Architectures*. Arlington VA, 2011.

61. **D Stidd, S. Krahl, JM Fellous, JP Langevin.** Amygdala deep brain stimulation is superior to Paroxetine in a rat model of PTSD. *American Association of Neurological Surgeons*, Denver, CO, 2012.

+62. **D Lyttle, KL Lin , JM Fellous.** Coding, stability, and non-spatial inputs in a modular grid-to-place cell model. *Computational Neuroscience Meeting*, Atlanta, GA, 2012.

63. **JM Fellous, B Jones, IM Vargas, S Pest, E Glisky**. Contextual reminders fail to trigger reconsolidation in aged rats and humans. *Society for Neuroscience*, New Orleans LA, 2012.

64. **B Jones, D Lyttle, Z Trahan, M Tatsuno, JM Fellous**. Investigating remapping and replay in a spatial memory reconsolidation task in rats. *Society for Neuroscience*, New Orleans LA, 2012.

65. **Y Nie, K Ali, JM Fellous, M Tatsuno**. Analysis of neural network structure by information geometric measure. *Society for Neuroscience*, New Orleans LA, 2012.

+66. **Lyttle D, Weitzenfeld A, Fellous JM, Lin K**. The influence of multiple firing events on the formation and stability of activity patterns in continuous attractor networks. *Computational Neuroscience Meeting*, Paris, France, 2013.

+67. **G. Tejera, A. Barrera, JM Fellous, M. Llofriu, A. Weitzenfeld**. Spatial Cognition: Robot Target Localization in Open Arenas based on Rat Studies. *SPIE "Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications 2013"*, Baltimore, 2013.

+68. **A. Lester, M. Howard, JM Fellous and R. Bhattacharyya**. A computational model of Perirhinal Cortex: Gating and repair of input to the Hippocampus. *International Joint Conference on Neural Networks*, Dallas, Texas, 2013.

69. **Z. Trahan, J. Lines, R. Michael, J. K. White, B. Jones, M.Tatsuno, JM. Fellous**. Electrophysiological, behavioral and computational investigations of memory reconsolidation in the rat hippocampus. *Society for Neuroscience*, San Diego, CA 2013.

70. **E. Janezic, R. LaHood, D. Stidd, JP. Langevin, E. French, JM. Fellous**. Pharmacological and Deep Brain Stimulation treatments in rodent models of Post-Traumatic Stress Disorder. *Society for Neuroscience*, San Diego, CA 2013.

+71. **J. Lines, K. Nation, JM Fellous**. A connectionist model of context-based memory reconsolidation in the hippocampus: the role of sleep. *Computational Neuroscience Meeting*, Quebec City, Canada, 2014.

72. **M. Contreras, M. Llofriu, A. Weitzenfeld and JM Fellous**. Effect of dorsal or ventral hippocampus inactivation on goal-directed spatial navigation in rats and computational models. *Society for Neuroscience*, Washington DC, 2014.

73. **P. Malerba, G.P. Krishnan, JM. Fellous, M. Bazhenov**. Hippocampal ripples as inhibitory transients. *Society for Neuroscience*, Washington DC, 2014.

74. **E. Janezic, S. Nagl, S. Uppalapati, E. French, JM. Fellous**. Oxytocin and Social Bonding as Treatments in a Rodent Model of Post-Traumatic Stress Disorder. *Society for Neuroscience*, Washington DC, 2014.

75. **Llofriu M., Tejera G., Contreras M., Fellous JM. And Weitzenfeld A**. Multi-scale Representation for Continuous State Q-Learning in Robotics. *International Conference on Robotics and Automation*, ICRA 2015 Seattle WA, 2015.

+76. **Aykin I., Koyluoglu O.O., and Fellous JM**. Formation of dorso-ventral grid cell modules: The role of learning. *Computational and Systems Neuroscience, COSYNE 2015*, Salt Lake City, Utah, 2015.

77. **Llofriu M., Calderon J., López GDT, Fellous JM, Weitzenfeld A**. Bio-Inspired Multi-Scale Representation for Navigation Learning. *IEEE International Conference on Robotics and Automation*, Seattle, Washington, 2015.

78.	**Greene P., Lin K. Fellous JM**. A Bayesian Approach to Source Localization with Applications to Spike Sorting. *Statistical Analysis of Neural Data workshop,* Pittsburgh, PA, 2015.
79.	**Contreras M., Medina C., Cruz K. and Fellous JM**. A new rodent model to study empathy. *Society for Neuroscience*, Chicago, 2015.
80.	**Malerba P., Nagl S., Krishnan GP, Fellous JM, Bazhenov M**. Understanding the mechanisms of hippocampal reactivation: from CA3 to CA1. *Society for Neuroscience*, Chicago, 2015.
81.	**Contreras M., Pelc T., Llofriu M., Weitzenfeld A and Fellous JM**. Ventral hippocampus inactivation impairs goal-directed spatial navigation in obstacle-laden environment. *Society for Neuroscience*, Chicago, 2015.
82.	**Nagl S., Crown L., Jones B., Tastuno M., Fellous JM**. Sharp Wave Ripple Complexes Contribute to Context-Dependent Separation of Memories in a Rodent Reconsolidation Task. *Society for Neuroscience*, Chicago, 2015.
83.	**Cazin N., Fellous JM, Weitzenfeld A., Dominey P.F**. Prefrontal Cortex Reservoir Network Learns to Reconstruct Navigation Sequences by Concatenating Place-cell Snippets Replayed in Hippocampus. *Society for Neuroscience*, Chicago, 2015.
84.	**Scleidorovich P., Llofriu M, Pelc T., Cazin N., Dominey P.F., Fellous JM, Weitzenfeld A.** Intra-hippocampal cell synapse learning may support pre-exposure based latent learning by means of improved replay events. *Society for Neuroscience*, San Diego, 2016.
85.	**Contreras M., Cruz K.G., Cummings J., Hatfield A. and Fellous JM**. Exploring mechanisms for empathy-like behavior in rats. *Society for Neuroscience*, San Diego, 2016.
86.	**Nagl S., Harper B., Malerba P., Bazhenov M. and Fellous JM**. Neurophysiological Correlates of the Influences of Spatial Context on Hippocampal Reactivation in a Rodent Reconsolidation Paradigm. *Society for Neuroscience*, San Diego, 2016.
87.	**Ragone M., Gianelli S., Schwartz D., Su L., Koyluoglu O. O., Fellous JM**. The role of hippocampal replay in a computational model of path learning. *Society for Neuroscience*, San Diego, 2016.
88.	**Cazin N., Scleidorovich P., Llofriu M, Pelc T, Fellous JM, Weitzenfeld A., Dominey P.F**. Prefrontal cortex reservoir network learns to create novel efficient navigation sequences by concatenating place-cell snippets replayed in hippocampus. *Society for Neuroscience*, San Diego, 2016.
89.	**Harper B., Sampson A., Sejnowski TJ, Fellous JM**. Sleep spindles and single-cell reactivation in the rodent medial prefrontal cortex during context-dependent memory reconsolidation. *Society for Neuroscience*, San Diego, 2016.
90.	**Pelc T, Llofriu M., Cazin N., Scleidorovich P., Dominey P.F., Weitzenfeld A. and Fellous JM**. Neurophysiological Correlates of Spatial Navigation Optimization in the Rodent. *Society for Neuroscience*, San Diego, 2016.

Recent Talks (invited, partial list)

20. Colloquium. International Center for Mathematics Encounters (CIRM), Marseille, France. July 2016. *Evidence for the Role of Dopamine and Oxytocin in Memory Consolidation and PTSD.*
19. Colloquium. Ben Gurion University, Israel. December 2013. *Role of the Dopaminergic System in Memory Consolidation and Post Traumatic Stress Disorder.*
18. Colloquium. Tel Aviv University, Israel. December 2013. *Understanding the mechanisms of memory (re)consolidation in the rodent.*
17. Colloquium. Haifa University, Israel. October 2013. *A case for the role of the dopaminergic system in memory consolidation and Post Traumatic Stress Disorder.*
16. Colloquium. University of Queensland, Brisbane, Australia, September 2012. *Involvement of the rodent ventral tegmental area in memory consolidation.*
15. Colloquium. University of Lethbridge, Canada. July 2012. *Involvement of the ventral tegmental area in memory consolidation in normal and PTSD rats.*
14. Colloquium. Bar Ilan University, Ramat Gan, Israel, June 2012. *New perspectives on the role of dopamine in learning and memory consolidation*.

13. Colloquium. University of Wisconsin, Milwaukee, February 2012. *The role of dopamine in learning and memory consolidation.*
12. Colloquium. Weizmann Institute of Science, Rehovot, Israel, July 2011. *New vistas on the role of the dopaminergic system in learning and memory.*
11. Lecture. Undergraduate in Biology Ethics Retreat. University of Arizona, May 2011. *The use of animals in research.*
10. Colloquium. University of California, Riverside, May 2011. *The role of the ventral tegmental area in learning and memory.*
9. Distinguished Lecturer Colloquium. University of South Florida, March 2011. *Neural Computations: From face perception to optimal spatial navigation.*
8. Lecture. Brandeis University. Dopamine meeting (J. Lisman, A Grace organizers). October 2010. *Reactivation of the rodent Ventral Tegmental Area.*
7. Colloquium. Department of Psychology, University of Arizona, Sept 2010. *The role of the rodent dopaminergic system of the Ventral Tegmental Area in learning and memory.*
6. Colloquium. Hughes Research Laboratories, Malibu, CA, August 2010. *Can rats solve the traveling salesperson problem?*
5. Symposium on Multidisciplinary approaches to understanding the mind and brain (Fellous, Lewis Organizers). May 9-12, 2010. *Can rats solve the traveling salesperson problem?*
4. Cognitive Neuroscience Society meeting, Montreal, CA, 2010. Symposium on brain oscillations, dynamic synchrony and cognition (M.X. Cohen organizer). *Keep it in mind: Reactivation in the Ventral Tegmental Area of the Rodent.*
3. University of Queensland, Australia. Thinking System Group, January 14, 2010. *Can rat solve the traveling salesperson problem?*
2. University of Queensland, Australia. Queensland Brain Institute. January 13, 2010. Colloquium. *Evidence for the Involvement of the Dopaminergic System in Posttraumatic Stress Disorder.*
1. University of Queensland, Australia. January 4-12, 2010. 'Summer of Spikes' meeting (J Wiles, A. Paulk organizers). 3 public lectures:
    - *Basic issues in neural data analyses: Finding patterns.*
    - *Neuromodulatory power: same neurons, different computations.*
    - *It's time for spikes! Spike timing and spike patterns.*

Other talks (invited, partial list)

12. University of Arizona. Neurology Grand Rounds. *Evidence for the involvement of the dopaminergic system in post-traumatic stress disorder.* Dec 2009.
11. University of Hawaii, Manoa. *Discovering spike patterns*, August 2005.
10. Stanford University, March 2004. Keynote speaker. American Association for Artificial Intelligence, Spring Symposium on architectures for modeling emotion: cross-disciplinary foundations. *From Human Emotions to Robot Emotions.*
9. University of California, Irvine, Dec 2003. *Spike patterns: One step beyond spike rates and spike timing.*
8. Duke University, September 2003. Center for Cognitive Neuroscience. *Spikes: It's (also) about time!*
7. Rutgers University, Newark, NJ. March 2003. *Regulation of persistent activity in an in vitro model of a prefrontal cortical microcircuit: Synergistic roles of dopamine modulation and inhibition.*
6. Duke University, February 2003. Biomedical Engineering Department. *Spikes: Get real! Understanding neural processing in vivo using computational and in vitro preparations.*
5. University of California, Riverside, October 2002. Department of Biomedical Sciences. *Make them talk!: The mysteries of synaptic transmission.*
4. University of Utah, Salt Lake City, UT, July 2002. Pain Management Department. Pain and Negative Emotion: Towards an Interdisciplinary Synthesis (official Satellite Meeting for the 10th International Association for the Study of Pain (IASP) World Congress on Pain). *The neural bases of emotion.*
3. University of Texas, Houston, TX, May 2002. Department of Neurobiology and Anatomy. *Gain and signal-to-noise modulation.*

2. University of Louisville, KY, March 2002. Psychology Department. *Neural computing with noise*.
1. University of Texas, Southwestern Medical Center, Dallas, TX, January 2002. Psychiatry Department. *Computational roles of noise and neuromodulation*.

List of Collaborators on Grants and Publications (past 5 years)

Note: graduate students and postdoctoral fellows are not listed.

Arbib MA, Bazhenov M, Bhattacharyya R, Cash S., Canavier C, Dominey P, French E, Giocomo LM, Glisky E, Halgren E., Hasselmo M, Howard M, Jacobs J, Koyluoglu O, Langevin JP, Lin K, Martin G, McNaughton BL, Nadel L, Rulkov N, Sejnowski TJ, Tatsuno M, Thomas PJ, Tiesinga PT, Timofeev I, Touretzky D, Ulanovsky N, Valdes JL, Weitzenfeld A, Zebrowitz L.