David A. Leopold, Ph.D.

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Laboratory of Neuropsychology, NIMH
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Employment

2004-present	Tenure track investigator, National Institutes of Health
2004-present	Director, Neurophysiology Imaging Facility, NIMH, NINDS, NEI
1997-2003	Research Scientist, Max Planck Institute for Biological Cybernetics

Education

1992-1997	Ph.D. Baylor College of Medicine, Division of Neuroscience
1987-1991	B.S.E. Duke University, Biomedical Engineering

Honors and Awards

2009 Editor's Choice Award, Human Brain Mapping
2009 Best Poster in fMRI, International Society Magnetic Resonance in Medicine
2006 Outstanding Mentor Award, National Institutes of Health
1993 Professor John J.Trentin Award for Scholastic Excellence
1991 NIH-MSTP (Medical Scientists Training Program) Fellowship
1991 Magna Cum Laude, Duke University
1991 Graduation with Distinction in Biomedical Engineering, Duke University
1990 Tau Beta Pi, National Engineering Honor Society
1990 NSF/ERC (Engineering Research Center) Undergraduate Fellowship

Journal Publications

48. Leopold DA (2010) Neuroscience: fMRI under the spotlight. *Nature.* 465:700-701.

47. Maier A, Adams GK, Aura C, and Leopold DA (2010) Distinct superficial and deep laminar domains of activity in the visual cortex during rest and stimulation. *Frontiers in Systems Neuroscience* 4(31):1-11.

46. Maier A, Aura C, and Leopold DA (2010) Infragranular sources of sustained LFP responses in macaque primary visual cortex. *Journal of Neuroscience* (in press).

45. Wilke M, Turchi, J, Smith K, Mishkin M, and Leopold DA (2010) Pulvinar inactivation disrupts selection of movement plans. *Journal of Neuroscience.* 30(25):8650-8659.

44. Schmid MC, Mrowka SW, Turchi J, Saunders RC, Wilke M, Peters AJ, Ye FQ, and Leopold DA (2010) Blindsight depends on the lateral geniculate nucleus. *Nature* 466:373-377.

43. Schölvinck, M, Maier, A, Ye FQ, Duyn, JH and Leopold, DA (2010) Neural basis of global resting state fMRI activity. *Proc Natl Acad Sci USA*. 107(22): 10238-10243.

42. Leopold DA and Rhodes G. (2010) A comparative view of face perception. *Journal of Comparative Psychology* 124(3):233-51.

41. Bondar IV, Leopold DA, Richmond BJ, Victor JD, and Logothetis NK (2009) Long-term stability of visual pattern selective responses of monkey temporal lobe neurons. *PLoS ONE* 4(12): e8222.

40. Tanji K, Leopold DA, Ye FQ, Zhu C, Malloy M, Saunders RC, Mishkin M. (2010) Effect of sound intensity on tonotopic fMRI maps in the unanesthetized monkey. *Neuroimage,* 49(1) 150-7.

39. Pelled G, Bergstrom DA, Tierney PL, Conroy RS, Chuang KH, Yu D, Leopold DA, Walters JR, Koretsky AP. (2009) Ipsilateral cortical fMRI responses after peripheral nerve damage in rats reflect increased interneuron activity. *Proc Natl Acad Sci USA*, 106(33):14114-9.

38. Müller, K.-M., Schillinger, F., Do, D. H. and Leopold, D.A. (2009) Dissociable perceptual effects of visual adaptation. *PLoS ONE* 4(7): e6183.

37. Wilke, M., Müller, K.-M., and Leopold, D.A. (2009) Neural activity in the visual thalamus reflects perceptual suppression . *Proc Natl Acad Sci USA,* 106(23): 9465-70.

36. Müller, KM, Wilke M, and Leopold DA (2009) Visual adaptation to convexity in macaque area V4. *Neuroscience*, 161(2):655-862.

35. Leopold DA (2009) Pre-emptive blood flow. *Nature*, 457(7228):387-88.

34. Cui J, Wilke M, Logothetis NK, Leopold DA, and Liang H (2009) Visibility states modulation microsaccade rate and direction. *Vision Research*, 49(2):228-36

33. Maier A, Wilke M, Aura C, Zhu C, Ye FQ, and Leopold DA (2008) Divergence of electrical and fMRI signals in primary visual cortex during perceptual suppression. *Nature Neuroscience.* 11(10):1193-200.

32. Shmuel A and Leopold DA (2008) Neuronal correlates of spontaneous fluctuations in fMRI signals in monkey visual cortex: implications for functional connectivity at rest. *Human Brain Mapping*, 29(7):751-61.

31. Rhodes G, Jeffery L, Clifford CW, and Leopold, DA (2007) The timecourse of higher level aftereffects. *Vision Research*. 47(17):2291-6.

30. Giese MA and Leopold DA (2007) Wie wir Gesichter erkennen. *Spektrum der Wissenschaft*. 3/07: 20-23.

29. Maier A, Logothetis NK, and Leopold DA (2007) Context dependent perceptual modulation in monkey visual cortex. *Proceedings of the National Academy of Sciences of the United States of America*, 104 (13):5620-5625.

28. Wang, Z., Maier A, Leopold DA, Logothetis NK, and Liang, H (2007) Single-trial evoked potential estimation using wavelets. *Computation in Biology and Medicine*. 37(4):463-473.

27. Wilke M., Logothetis N.K., and Leopold, D.A. (2006) Local field potential reflects perceptual suppression in monkey visual cortex. *Proceedings of the National Academy of Sciences of the United States of America*, 103(46):17507-12.

26. Wang, Z., Maier A, Leopold DA and Liang, H (2006) Relaxation based multichannel signal combination (RELAX-MUSIC) for ROC analysis of percept-related activity *IEEE Trans Biomed Eng*, 53(12 Pt 2):2615-8.

25. Leopold, D.A., Bondar, I., and Giese, M (2006) Norm-based face encoding by single neurons in the monkey inferotemporal cortex. *Nature*, 442(7102):572-5.

24. Fukunaga M., Horovitz SG, van Gelderen P, de Zwart JA, Jansma JM, Ikonomidou V, Chu R, Deckers RHR, Leopold DA, and Duyn JH. Large amplitude spatially correlated fluctuations in BOLD fMRI signals during extended rest and early sleep stages. *Magnetic Resonance in Medicine*. 24(8),979-92.

23. Leopold, D.A. and Maier A. (2005) Neuroimaging: Perception at the brain's core.

Current Biology, 16(3), R95-8.

22. Maier A., Logothetis N.K., and Leopold D.A. (2005). Global competition dictates local suppression in pattern rivalry. *Journal of Vision*, 5(9): 668-77.

21. Leopold, D.A. and Wilke, M. (2005) Neuroimaging: Seeing the trees for the forest. *Current Biology* 15(18):R766-8.

20. Giese M. A., Leopold D.A. (2005) Physiologically inspired neural model for the encoding of face spaces. *Neurocomputing*, 65-66, 93-101.

19. Leopold, D.A., Rhodes, G., Mueller K.-M., and Jeffrey, L (2005) The dynamics of visual adaptation to faces. *Proceedings of the Royal Society, Series B,* 272(1566):897-904.

18. Leopold, D.A. (2003) Motion perception: read my LIP. *Nature Neuroscience*, 6(6), 548-549.

17. Wilke, M., Logothetis, N.K., and Leopold, D.A. (2003). Generalized flash suppression of salient visual targets *Neuron*, 39, 1043-1052.

16. Leopold, D.A., Maier, A., and Logothetis, N.K. (2003) Measuring subjective visual perception in the nonhuman primate. *Journal of Consciousness Studies* 10(9-10), 115-30.

15. Maier, A., Wilke, M., Logothetis, N.K., and Leopold, D.A. (2003). Perception of temporally interleaved ambiguous patterns. *Current Biology,* 13, 1076-1085.

14. Leopold, D.A. and Logothetis, N.K. (2003) Spatial patterns of spontaneous local field activity in the monkey visual cortex. *Reviews in the Neurosciences*, 14, 195-205.

13. Leopold, D.A., Murayama, Y. and Logothetis, N.K. (2003) Very slow activity fluctuations in monkey visual cortex: implications for functional imaging. *Cerebral Cortex* 13(4), 422-33.

12. Leopold, D.A. (2003) Visual Perception: Shaping What We See. *Current Biology*. 13, R10-R12.

11. Leopold, D.A., Wilke, M., Maier, A., and Logothetis, N.K. (2002) Stable perception of visually ambiguous patterns. *Nature Neuroscience*, 5:6, 605-609.

10. Leopold, D.A., Plettenberg, H.K, and Logothetis, N.K. (2002) Visual processing in the ketamine-anesthetized monkey: optokinetic and blood oxygen level-dependent responses. . *Experimental Brain Research 143:359-372.*

9. Leopold, D.A. (2002) Visual Neurophysiology: Recordings from the Human Primate. *Current Biology*. 12, R582-R584.

8. Leopold, D.A., O'Toole, A.J., Vetter T., and Blanz, V. (2001) Prototype-referenced shape encoding revealed by high-level aftereffects. *Nature Neuroscience*, 4:1, 89-94.

7. Leopold, D.A. and Logothetis N.K. (1999) Multistable phenomena: changing views in perception. *Trends in Cognitive Sciences*, Vol 3., No. 7, pp 254-264.

6. Leopold, D.A. and Logothetis N.K. (1998) Microsaccades differentially modulate neural activity in the striate and extrastriate visual cortex. *Experimental Brain Research*, Vol 123, pp 341-345.

5. Logothetis, N.K., Leopold, D.A. and Sheinberg, D. (1996) What Is Rivaling during Binocular Rivalry? *Nature* 380:621-624.

4. Leopold, D.A. and Logothetis, N.K. (1996) Activity changes in Early Visual Cortex Reflect Monkeys' Percepts During Binocular Rivalry. *Nature* 379:549-553.

3. Logothetis, N.K. and Leopold, D.A. (1995) On the Physiology of Bistable Percepts. A.I. Memo, No: 1553, C.B.C.L. Paper No. 125, pp: 1-20.

2. Leopold, D.A., Fitzgibbons, J.C., and Logothetis, N.K. (1995) The Role of Attention in Binocular Rivalry as Revealed through Optokinetic Nystagmus. A.I. Memo, No: 1554, C.B.C.L. Paper No. 126, pp:1-17.

1. Agrawal, C.M., Haas, K.F., Leopold, D.A., and Clark, H.G. (1992) Evaluation of poly(L-lactic acid) as a material for intravascular polymeric stents. *Biomaterials*. 13(3) 176-182.

Book Chapters

Leopold, D.A. (2009). Dynamic facial signaling: a dialog between brains. In Dynamic Faces: Insights from Experiments and Computations. MIT Press.

Rhodes, G. and Leopold, D.A. (2009) Adaptive norm-based coding of face identity. Handbook of Face Perception. Oxford University Press.

Maier, A. and Leopold, D. A. (2008) Binocular Rivalry. In OUP Companion to Consciousness (ed. P. Wilken, T. Bayne, and A. Cleeremans). Oxford University Press.

Leopold, D. A. & Bondar, I. (2005) Adaptation to complex visual patterns in humans and

monkeys. In Fitting the mind to the world: adaptation and aftereffects in high-level vision (ed. C. W. Clifford & G. Rhodes). Oxford University Press, 189–211.

Leopold, D.A., Maier, A., Wilke, M.and Logothetis, N.K. (2004) Binocular Rivalry and the Illusion of Monocular Vision, in Binocular Rivalry and Perceptual Ambiguity (Eds. D. Alais and R. Blake), MIT Press, Cambridge, MA.

Logothetis, N.K. and Leopold, D.A. (1997). Single Neuron Activity and Visual Perception. The Tucson Proceedings, (Eds. Stuart Hameroff), In Toward a Science of Consciousness II. The second Tucson Discussions and Debates, pp. 309-319. MIT Press, Cambridge, MA.

Logothetis, N.K., Leopold D.A., and Sheinberg D.L. (1997) Neural Mechanisms of Perceptual Organization, Cognitive Studies: Bulletin of the Japanese Cognitive Science Society,Volume 4, No. 3 pp. 99-119.

Logothetis, N.K., Leopold, D.A. and Sheinberg, D.L. (1996) Proceedings of the International Institute for Advanced Studies, Kyoto, Japan, p.141-161.

Meeting Abstracts

McMahon, D.B. and Leopold. (2010) D.A. Stimulus timing dependent plasticity in high- and low-level vision. COSYNE

Maier, A., Aura, C., Leopold, D.A. (2009) Visual awareness correlates with layer-specific activity in primary visual cortex. ECVP

Reavis, E.A., Leopold, D.A. , & Maier, A. Saccadic Modulation of Laminar Field Potentials in Primate Visual Cortex. (2009) Society for Neuroscience

Maier, A., Aura, C., Leopold, D.A. (2009) Visual awareness correlates with layer-specific activity in primary visual cortex. VSS

Maier, A.V., Adams, G.K., Aura, C., Leopold, D.A. (2009) Distinct laminar zones of coherent local field potentials in monkey V1. Cosyne

Maier. A., Wilke, M., Aura, C., Zhu, C., Ye, F., Leopold, D.A. (2008) What happens in primary visual cortex when a stimulus becomes visible? Insights from fMRI and layer-specific neurophysiology in non-human primates. Japan Neuroscience Society

Tsuchiya, N., Maier, A., Logothetis, N.K., Leopold, D.A. (2008) Decoding monkey's conscious experience during ambiguous and unambiguous motion percept reveals initial non-conscious spike activity and later neuronal correlates of consciousness in area MT. ASSC 12.

Maier, A., Aura, C., Leopold, D.A. (2008) Visual awareness correlates with layer-specific activity in visual cortex. ASSC 12

Tsuchiya, N., Maier, A., Logothetis, N.K., Leopold, D.A. (2008) Decoding monkey's conscious experience during ambiguous and unambiguous motion percept reveals initial non-conscious spike activity and later neuronal correlates of consciousness in area MT. Toward a Science of Consciousness. 8th biennial Tucson conference.

M.C. Schmid, S. Mrowka, J. Turchi, M. Wilke, F. Ye, R. Saunders, D.A. Leopold. V1-independent activation of extrastriate areas depends on direct geniculate input. (2009) Annual Meeting of the Society for Neuroscience.

S. Mrowka, H. Merkle, C. Zhu, K.M. Gothard, D.A. Leopold, M.C. Schmid. V1-independent fMRI activation patterns in the macaque temporal lobe. (2009) Meeting of the Society for Neuroscience.

Schölvinck, M., Maier, A., Zhu,C., Ye, F.Q., Duyn,J.H. and Leopold, D.A. State-Dependent, Widespread Correlation of Neural and FMRI Endogenous Fluctuations in the Awake Monkey. (2009) ISMRM Meeting

Müller KM, Do DH, Leopold DA (2008) Independent measures of adaptation and aftereffect. Journal of Vision 8(6), 73a

D. A. Leopold, C. Aura, A. V. Maier. Laminar analysis of local field and current source density during physical and perceptual events in monkey V1. (2008) Society for Neuroscience Abstr.

M. C. Schmid, M. Wilke, J. Turchi, K. Smith, S. Mrowka, C. Zhu, F. Ye, D. A. Leopold. Inactivation of LGN strongly suppresses the BOLD-fMRI activity in macaque areas V1, V2, V3, but not in areas V4 and V5/MT. (2008) Society for Neuroscience Abstr.

D. B. McMahon, S. A. Jennings, D. A. Leopold. Stimulus timing induced plasticity of face perception. (2008) Society for Neuroscience Abstr.

M. L. Scholvinck, A. V. Maier, F. Ye, C. Zhu, and D. A. Leopold. The neural basis of fMRI resting state fluctuations. (2008) Society for Neuroscience Abstr.

N. Tsuchiya, A. Maier, N. K. Logothetis, D. A. Leopold. Decoding kinetic depth using only the temporal structure of spike trains from area MT. (2008) Society for Neuroscience Abstr.

G. K. Adams, A. V. Maier, C. Aura, D. A. Leopold. Endogenous fluctuations of LFP power in monkey V1 are compartmentalized into superficial and deep laminar zones. (2008) Society for Neuroscience Abstr.

A. V. Maier, G. K. Adams, C. Aura, D. A. Leopold. Distinct laminar zones of coherent local field potentials in monkey V1. (2008) Society for Neuroscience Abstr.

J. Cui, M. Wilke, N. Logothetis, D. Leopold, H. Liang. Stimulus visibility reflected in microsaccade activity. (2008) Society for Neuroscience Abstr.

Leopold, D.A., Wilke, M, and Maier A. (2008) Neural correlates of perception measured with fMRI and microelectrodes. 14th World Congress of Psychophysiology

Bondar, I.V., Leopold,D.A., and Logothetis, N.K. (2008) Stability of neuronal representation in inferotemporal cortex: long-term single neurons study by chronically implanted electrodes. 14th World Congress of Psychophysiology

Maier, A.V, Aura, C.J. and Leopold, D.A. (2007) Laminar differences in perceptual modulation of V1 local field potentials. Society for Neuroscience Abstr.

Mueller, K.-M., Wilke, M., and Leopold, D.A. (2007) Shape selectivity of field potentials and neurons in macaque area V4. Society for Neuroscience Abstr.

Wilke, M., Turchi, J., Zhu, J, Mueller, K. M., Ye, F., and Leopold, D. A., (2007) Effects of reversible inactivation of pulvinar on neural and BOLD responses in visual cortex. Society for Neuroscience Abstr.

Pelled, G., Bergstrom, D.A., Chuang, K.-H., Tierney, P.L., Conroy, R.S., Yu, D., Leopold, D.A., Walters, J.R., and Koretsky, A.P. (2007) FMRI activation of the ipsilateral somatosensory cortex following forepaw denervation is associated with increased activity of cortical interneurons. Society for Neuroscience Abstr.

Tanji, K, Leopold, D.A., Ye, F., Zhu, C., Malloy, M., Saunders, R. and Mishkin, M. (2007) Sound level dependent activation in the macaque auditory cortex - an fMRI study. Society for Neuroscience Abstr.

Wang, Z., Maier, A, Logothetis, N.K., Leopold, D.A., and Liang H (2007) Prestimulus activity in area MT predicts psychophysical performance in a bistable motion task. Society for Neuroscience Abstr.

Pelled, G, Chuang KH, Bergstrom D, Weng JC, Leopold DA, Walters JR, and Koretsky AP (2007) Increasd interneuron activity is associated with ipsilateral fMRI activation following forepaw denervation. ISMRM Abstract

Bondar, I.V., D. A. Leopold, and N K Logothetis (2006) "Pattern-selective cortical neurons show long-term stability in their stimulus preferences and temporal dynamics" European Conference on Visual Perception Abstr.

Liang, H., X. Wang, Z. Wang, Logothetis, N.K., D.A. Leopold, A. Maier. (2006) A comparison of local field potentials and spiking activity to predict perceptual report during bistable visual stimulation. Society for Neuroscience Abstr.

Maier, A., Wilke, M. Aura, C., Zhu, C., Ye, F.Q., Leopold, D.A. (2006) Stimulus invisibility uncouples BOLD from neuronal responses in monkey primary visual cortex. Society for Neuroscience Abstr.

Aura, C., Maier, A. & Leopold, D.A. (2006) Neuronal activity across cortical layers in monkey visual cortex. Society for Neuroscience Abstr.

K-M Mueller, M. Wilke, and D. A. Leopold, (2006) Neural responses in monkey area V4 and pulvinar following visual shape adaptation. Society for Neuroscience Abstr.

K. Tanji, M. Malloy, D. Leopold, F. Ye, C. Zhu, R. Saunders, M. Mishkin (2006). Visualization of tonotopic reversal on the supratemporal plane of the monkey. Society for Neuroscience Abstr.

Z. Wang, A. Maier, D. A. Leopold, H. Liang. (2006). Linear combination of neuronal signals in area MT improves determination of perceptual states. Society for Neuroscience Abstr.

Wilke M, Kai-Markus Mueller, David A. Leopold (2006). “The role of thalamo-cortical interactions in supporting visibility”, Society for Neuroscience Abstr.

Maier A., M. Wilke, N.K. Logothetis and D. A. Leopold (2005) “Flash suppression in monocular and binocular rivalry: psychophysical and neurophysiological observations”, VSS Abstr

David A. Leopold, Gillian Rhodes, Kai-Markus Müller, Linda Jeffery (2005) “The dynamics of visual adaptation to faces” , VSS Abstr

Kai-Markus Müller, Marc O. Ernst, David A. Leopold (2005) “Contributions of convexity and aspect ratio to figural aftereffects” , VSS Abstr

M. Wilke, N. K. Logothetis* and D. A. Leopold (2005) “Effect of stimulus onset asynchrony on perceptual modulation in macaque V4” , VSS Abstr

Maier, A., Logothetis, N.K. & Leopold, D.A. (2003) “Perception-related neural modulation in the visual cortex for pairs of different ambiguous patterns”, Society for Neuroscience Abstr.

Wilke M. , Logothetis N.K., and Leopold D. A. (2003) “Neural activity during induced visual suppression in the monkey”, Society for Neuroscience Abstr.

Bondar I.V., Leopold D.A., Boldyrev A.A. and Logothetis N.K., (2003) “Long-term stability of complex neural responses in monkey inferotemporal cortex”, Society for Neuroscience Abstr.

Leopold, D.A., Bondar, I.V., Giese M.A., and Logothetis N.K., (2003) “Prototype-referenced encoding of faces in the monkey inferotemporal cortex.”, Society for Neuroscience Abstr.

Leopold, D.A., Augath, M.A. and Logothetis, N.K. (2002) “Visualizing global brain networks in the monkey using combined fMRI and electrophysiology” Society for Neuroscience Abstr.

Wilke, M., Leopold, D.A., Logothetis, N.K. (2002) “Flash suppression without interocular conflict” Society for Neuroscience Abstr.

Maier, A., Leopold D.A., Logothetis, N.K. (2002) “Neural activity during stable perception of ambiguous displays in monkey visual cortex.” Society for Neuroscience Abstr.

Ghazanfar, A.A., J. Pauls, D.A. Leopold, M.D. Hauser and N.K. Logothetis (2002), “Neural

responses to species-specific vocalizations in the auditory association cortex of the awake behaving rhesus monkey." Society for Neuroscience Abstr.
Leopold, D.A., Bondar, I.V., O'Toole, A.J., and Logothetis, N.K. (2002) "Exploring face representation in humans and monkeys using high-level aftereffects." European Conference on Visual Perception Abstr.
Bondar, I.V., Leopold, D.A., and Logothetis, N.K. (2002), "Evidence for prototype-referenced encoding of faces in the monkey."3rd Forum of European Neuroscience, Paris.
Maier, A., Wilke, M, Leopold, D.A. & Logothetis, N.K. (2002) Parallel perception of multiple visually bistable patterns. Tuebingen Wahrnehmungs-Konferenz
Wilke, M, Maier, A., Leopold, D.A. & Logothetis, N.K. (2002) Periods of stimulus absence stabilize the perception of ambiguous patterns. Tuebingen Wahrnehmungs-Konferenz
Bondar, I.V., Leopold, D.A., Pauls, J.M. & Logothetis, N.K. (2002) Investigation of face representation in monkeys using adaptational aftereffects. Tuebingen Wahrnehmungs-Konferenz
Haiss, F., Leopold, D.A., Pauls J.M., & Logothetis, N.K. (2002) Dynamics of brain state transitions during anesthetic induction in the monkey. Tuebingen Wahrnehmungs-Konferenz
Leopold, D.A., Murayama, Y. and Logothetis, N.K. (2001) "Determiniants of neural activity covariation in macaque visual cortex under different behavioral states" Society for Neuroscience Abstr.
Murayama, Y., Leopold, D.A., and Logothetis, N.K. (2001) "Perception-related neural activity in the temporal lobe of rhesus monkeys under different conscious states" Society for Neuroscience Abstr.
Silver, M.A., Leopold, D.A., and Logothetis, N.K. (2001) "The effects of global perturbations on perceptual dominance during binocular rivalry between interocularly switched stimuli" Society for Neuroscience Abstr.
Bondar, I.V., Leopold, D.A., Pauls, J.M. and Logothetis, N.K. (2001) "Neural responses related to face identity in the inferotemporal cortex of monkeys measured with 64 implanted electrodes" Society for Neuroscience Abstr.
Wilke, M., Maier, A., Leopold, D.A., Treue, S., and Logothetis, N.K. (2001) "Periods of stimulus absence stabilize perception of ambiguous patterns" Society for Neuroscience Abstr.
Maier, A., Wilke, M., Leopold, D.A., Ghazanfar, A., and Logothetis, N.K. (2001) "Parallel perception of multiple visually bistable patterns" Society for Neuroscience Abstr.
Leopold, D.A., Murayama, Y. and Logothetis, N.K. (2000) "Intra- and Interareal Covariation of Neural Activity during Multistable Perception in the Monkey" Society for Neuroscience Abstr. #498.10, Vol: 26, pp. 1332
Plettenberg, H., Leopold, D.A., Smirnakis, S.M., and Logothetis, N.K. (2000) "Perception-related Optokinetic Responses in the Semi-conscious Monkey"Society for Neuroscience Abstr. #250.11, Vol: 26, pp. 671.
Murayama, Y., Leopold, D.A., and Logothetis, N.K. (2000) "Neural Activity During Binocular Rivalry in the Anesthetized Monkey", Society for Neuroscience Abstr. #448.11, Vol: 26, pp. 1200.
Leopold, D.A. and Logothethis, N.K. (1998), "The Influence of Microsaccadic Eye Movements on Neuronal Activity in the Cortical Visual Areas", Proceedings of the 26th Goettingen Neurobiology Conference, Vol 1, pp 79.
Leopold, D.A. Sheinberg, D., and Logothetis, N.K. (1995) Binocular Rivalry: Interocular or Interstimulus Competition? Invest. Ophthalmol. Vis. Sci. Suppl. 36:S668.
Leopold, D.A. and Logothetis, N.K. (1995) Cell Activity in the Early Visual Cortex of Behaving Monkeys During Binocular Rivalry. Society for Neuroscience Abstr. Vol: 22, pp. 19
Sheinberg, D., Leopold, D.A. and Logothetis, N.K. (1995) Effects of Binocular Rivalry on Face Cell Activity in Monkey Temporal Cortex. Society for Neuroscience Abstr. Vol: 22, pp.

Leopold, D.A. and Logothetis, N.K. (1995) Cell Activity Reflects Monkey's Perception During Binocular Rivalry. Invest. Ophthalmol. Vis. Sci. Suppl. 36:S813.

Sheinberg, D., Leopold, D.A. and Logothetis, N.K. (1995) Controlling Perceptual Alternations During Binocular Rivalry. Invest. Ophthalmol. Vis. Sci. Suppl. 36:S668.

Invited Talks

- 9 March, 2011, Vanderbilt University, Nashville, TN, "Combining fMRI and electrophysiology to understand visual perception in the primate brain"
- 17 February, 2011, Brown University, Providence, RI, "Neural mechanisms of conscious visual perception"
- 10 February, 2011, Princeton University, Princeton, NJ, "Understanding the circuits of blindsight: a combined imaging, electrophysiology, and neuropharmacological approach."
- 2 February, 2011, Duke University, Durham NC, "Dissecting the thalamocortical circuitry of visual perception"
- 28 January, 2011, NIMH Networks Maturation Workshop, Washington DC, "Digging deeper into the physiology underlying resting state functional connectivity."
- 6 January, 2011, National Institute for Neurological Disorders and Stroke Seminar, "The thalamus, the cortex, and how we see".
- 13 October, 2010, Melbourne Neurosciences Institute, Melbourne, Australia, "Thalamocortical circuits in visual perception"
- 18 September, 2010, 2nd Biennial Convference on Resting State Activity, "Distinct superficial and deep laminar domains of activity in visual cortex during rest"
- 29 June 2010, International Neuropsychological Symposium, Ischia, Italy, "Thalamocortical circuits underlying visual awareness"
- 20 April 2010, Yale University, New Haven, CT, "Perceptual visibility in the visual thalamus and cortex"
- 11 March 2010, Janelia Farm, Ashburn, VA, "Thlamocortical circuits in visual perception"
- 10 October 2009, CMRR High Field Workshop, Minneapolis, "Using local electrophysiological signals to map endogenous fMRI fluctuations in the brain"
- 3 June 2009, NIDA, Baltimore, "Endogenous activity variation in the nonhuman primate brain and its relationship to perception"
- 25 March 2009, Nijmegen, Holland, "Multimodal functional imaging in nonhuman primates"
- 24 February 2009, Harvard University, Cambridge, MA, "Linking perceptual experience to neural events in the primate visual cortex and thalamus"
- 5 December 2008, Magdeburg, Germany, "Using local electrophysiological signals to map endogenous fMRI fluctuations in the brain"
- 13 October 2008, Dartmouth College, Hannover, NH "Interpreting electrophysiological and fMRI responses in V1"
- 14 March 2008, Helmholtz Lecture. Utrecht University, Utrecht Holland. "What IS a neural correlate of perceptual suppression?"
- 15 October 2007, Boynton Colloquium. University of Rochester, NY. "A dissociation of basic neural signals in V1 during perceptual suppression"
- 20 June 2007, International Neuropsychological Symposium. Mati, Greece. "Using fMRI and microelectrodes to investigate perceptual suppression in awake monkeys"
- 19 April 2007, Yale University, New Haven, CT. "What processes in the brain make a stimulus visible?"

- 4 April 2007, Bogue Lecture, Mind Brain Institute, Johns Hopkins University, Baltimore Maryland, “Neural correlates of visual perception measured with electrophysiology and fMRI”
- 26 January 2007, Conference on Brain Network Dynamics, Berkeley, California, “The role of the primary visual cortex in multistable perception”
- 29 October 2006, University of Western Australia, Perth, “Norm-based encoding of faces in the monkey inferotemporal cortex”
- 25 October 2006, Institute for Higher Nervous Function, Moscow, Russia, “Neural processes underlying visibility and recognition”
- 25 September 2006, New York University, NY. “What brain processes make a stimulus visible?”
- 21 September 2006, Newcastle University, Newcastle UK. “Combining fMRI and neurophysiology to study visual perception in the monkey”
- 14 September 2006, Massachusetts Institute of Technology, “Norm-referenced encoding of faces in the monkey inferotemporal cortex”
- 9 July 2006, FENS Symposium on Consciousness, Vienna, Austria, “What brain processes make a stimulus visible?”
- 22 June 2006, NIH Imaging Symposium, Bethesda, MD, “Combining fMRI and neurophysiology to study visual perception in the monkey”
- 11 June 2006, Human Brain Mapping Meeting, Florence, Italy. “Relating principles of electrophysiology to functional imaging”
- 12 May 2006, Baylor College of Medicine, Houston, TX. “What brain processes make a stimulus visible?”
- 15 February 2006, University of Texas, Houston, TX. “Prototype-referenced encoding of faces in the monkey inferotemporal cortex”
- 5 September 2005, Helmholtz Symposium, Utrecht, The Netherlands. “Binocular rivalry and the illusion of monocular vision”
- 26 June 2005, Caltech, ASSC9. “Adaptational aftereffects to simple and complex shapes”
- 21 April 2004, Isle of Mull, Scotland. "Norm-based face encoding in the monkey inferotemporal cortex"
- 7 April 2004, Tucson Arizona, Center for Consciousness Studies, “What are the neural correlates of consciousness?”
- 18 December 2003, Human Neuroimaging Conference, Neurology Clinic, Basel, Switzerland. “Mapping spontaneous neural activity in the brain with fMRI”
- 12 December 2003, Donders Center, Nijmegen, The Netherlands. “Neural responses during high-level adaptation to faces in monkey”
- 24 November 2003, German Primate Center, Goettingen, Germany. “Neural responses during Genralized Flash Suppression”
- 25 August 2003, Marine Biology Laboratory, Woods Hole, MA. “Slow changes in fast brain potentials: implications for fMRI”
- 12 June 2003, Goettingen, Germany, Goettingen Neurobiology Conference, Symposium on Adaptation, “Aftereffects with faces: evidence for prototype referenced encoding of identity”
- 31 May 2003, Memphis, TN, Association for the Scientific Study of Consciousness, Symposium on Binocular Rivalry, “Binocular rivalry and the illusion of monocular vision”
- 14 April 2003, California Institute of Technology, Dept. Neurobiology, “Unifying neural mechanisms of perceptual organization.”
- 14 January 2003, California Institute of Technology, Dept. Neurobiology, “Neural mechanisms of multistable visual perception in the monkey”
- 22 November 2002, National Institutes of Health, “High-level perceptual aftereffects and the encoding of faces in monkey inferotemporal cortex.”

- 18 November 2002, Harvard College, Department of Biology, “High-level perceptual aftereffects and the encoding of faces in monkey inferotemporal cortex.”
- 12-15 June 2002, San Miniato, Italy, Workshop on Binocular Rivalry and Perceptual Ambiguity, “Instability and stability in the visual cortex during perceptual rivalry”
- 2-9 May 2002, Kunming China, Second Symposium on Complex Biological Systems. "Brain mechanisms of face recognition in man and monkey".
- 1 April 2002, Stanford University, Dept. Neurobiology, “Neural mechanisms of multistable visual perception in the monkey”
- 5 March 2002. Harvard Medical School, “Neural mechanisms of multistable visual perception”.
- 25-27 February 2002. ETH, Zuerich, Switzerland, “Visualizing spontaneous activity networks in the primate brain using combined fMRI and microelectrode recordings”
- 7 January 2002. Massachusetts Institute of Technology, “Exploring spontaneous brain events: electrophysiological and neuroimaging approaches”.
- 17-21 August 2001. Big Sky, USA, Cooperative dynamics of neocortex. “Exploring spontaneous brain events: electrophysiological and neuroimaging approaches”.
- 9-10 February 2001. Marburg, Germany, Dept. of Physics “Intra- and interareal covariation of activity during multistable perception in the monkey”.
- 4-10 September 2000. Kunming, China. Symposium on Complex Biological Systems. “Neural correlates of visual perception”.
- 14-17 May 2000. Cold Spring Harbor, NY. Toward animal models of attention and consciousness. “Neural activity during multistable vision in the monkey”.
- 25-27 February 2000. Tuebingen, Germany. Tuebingenwahrnehmungskonferenz (Tuebingen perception conference). “Neural correlates of stable and multistable perception in the monkey”.
- 28 September – 1 October 1999. Bielefeld, Germany. KogWis99, Meeting of the Society for Cognitive Science. “The language of vision”.
- 8-9 October 1998. Heidelberg, Germany. Heidelberg Brain Symposium. “Stability and instability in visual perception”.

Previous Postdoctoral Fellows

- Melanie Wilke, Ph.D. (2005-2008), Presently a postdoctoral fellow at Caltech (R. Andersen). She will begin a professorship position in Goettingen, Germany in Spring 2011.
- Michael Schimd, Ph.D. (2007-2010), Presently a postdoctoral fellow at the Ernst Struengmann Institute, Frankfurt, Germany (P. Fries).

Previous Graduate Students

- Kai-Markus Müller, Ph.D. Graduate School for Behavioral and Neural Sciences, Tübingen, Germany. (2010)
- Alexander Maier, Ph.D. (2005) Graduate School for Behavioral and Neural Sciences, Tübingen, Germany.
- Melanie Wilke, Ph.D. (2005) Graduate School for Behavioral and Neural Sciences, Tübingen, Germany.
- Holger Plettenberg, Diploma (German Masters). (2002) University of Stuttgart, Stuttgart, Germany.

Thesis Committees (external member)

P. Christiaan Klink (2011), Utrecht University, Netherlands
Tamara Watson (2006), School of Psychology, University of Sydney.
Ryota Kanai (2005), Helmholtz Institute, Utrecht University, Netherlands.
Chris Paffen (2005), Helmholtz Institute, Utrecht University, Netherlands.

Other Services

Member of External Advisory Committee for Caltech Imaging Center (R. Adolphs, Director)
Periodic ad-hoc reviewer for Center for Scientific Review

Ad Hoc Journal Review

Animal Cognition
Biological Cybernetics
BMC Neuroscience
Cerebral Cortex
Current Biology
European Journal of Cognitive Psychology
Human Brain Mapping
Journal of Neuroscience
Journal of Neuroscience Methods
Journal of Neurophysiology
Journal of Vision
Nature
Nature Neuroscience
Nature Reviews Neuroscience
Neuron
Neuroimage
Perception
Psychological Bulletin
PLoS One
PLoS Biology
PNAS
Perception and Psychophysics
Proceedings of the Royal Society
Science
Trends in Cognitive Sciences
Vision Research