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Core Faculty Profile

John B. Troy

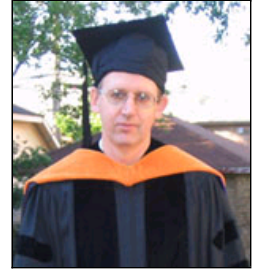
Professor

PhD, Experimental Psychology (Neurophysiology), Sussex University

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John B. Troy

Research Interests

- Design and fabrication of electrodes for neuroprosthetics and neurophysiology
- Studies of visual function: Specifically, the processing and analysis of images by the mammalian visual system, functional circuitry of the retina, application of signal theory

Selected Publications

1. Passaglia, C.L., Freeman, D.K. and **Troy, J.B.** (2009) Effects of remote stimulation on the modulated activity of cat retinal ganglion cells. *Journal of Neuroscience* **29** 2467-2476.
2. Crook, J.D., Peterson, B.B., Packer, O.S., Robinson, F.R., **Troy, J.B.** and Dacey, D.M. (2008) Y-cell receptive field and collicular projection of parasol ganglion cells in macaque monkey retina. *Journal of Neuroscience* **28** 11277-11291.
3. Crook, J.D., Peterson, B.B., Packer, O.S., Robinson, F.R., Gamlin, P.D., **Troy, J.B.** and Dacey, D.M. (2008) The smooth monostratified ganglion cell: evidence for spatial diversity in the Y-cell pathway to the LGN and superior colliculus in the macaque monkey. *Journal of Neuroscience* **28** 12654-12671.
4. **Troy, J.B.** (2009) Retinal ganglion cells: Receptive fields. In Squire, L.R. (Ed.) *Encyclopedia of Neuroscience*. Volume 8. Oxford: Academic Press. pp. 219-223.
5. D.M., Vessey, K.A., Yarbrough, G.L., Invergo, B.M., Cantrell, R.D., Inayat, S., **Troy, J.B.**, Balannik, V., Hicks, W.L., Hawes, N.L., Byers, S., Smith, R.S., Hurd, R., Howell, D., Gregg, R.G., Chang, B., Naggert, J.K., Pinto, L.H., Nishina, P.M. and McCall, M.A. (2008) Allelic variance between metabotropic glutamate receptor 6 mutants, *Grm^{nob3}* and *Grm^{nob4}* results in differences in retinal ganglion cell visual responses. *Journal of Physiology* **586.18** 4409-4424.
6. D.R., Inayat, S., Taflove, A., Ruoff, R.S. and **Troy, J.B.** (2008) Incorporation of the electrode-electrolyte interface into finite element models of metal microelectrodes. *Journal of Neural Engineering* **5** 54-67 (cover picture).

Editorial Boards and Honors

- Journal of Nanoengineering and Nanosystems (2004-present)
- Visual Neuroscience (2002-2012)
- 2006 Fellow AIMBE

For additional information, visit <http://myprofile.cos.com/troyjo>



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