

**John L. Wyatt, Ph.D.**

MIT Department of Electrical Engineering, Room 36-864, Cambridge, MA 02139  
jlw@mit.edu

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**a. Professional Preparation**

|               |                        |             |
|---------------|------------------------|-------------|
| M.I.T.        | Electrical Engineering | S.B.,1968   |
| Princeton U.  | Electrical Engineering | M.S.,1970   |
| U.C. Berkeley | Electrical Engineering | Ph.D., 1979 |

**b. Appointments**

|              |   |
|--------------|---|
| 1969-1971    | Design Engineer, U.S. Public Health Service, Rockville, MD        |
| 1978-1979    | Postdoctoral Fellow, Medical College of Virginia                  |
| 1979-1984    | Assistant Professor of Electrical Engineering, MIT, Cambridge, MA |
| 1984-1990    | Associate Professor of Electrical Engineering, MIT, Cambridge, MA |
| 1990-present | Professor of Electrical Engineering, MIT, Cambridge, MA           |

**Honors:**

1998 Jules Stein Living Tribute Award, Retinitis Pigmentosa International Foundation

**c. Publications**

(i) Most closely related to proposal project:

1. S.K. Kelly, J.L. Wyatt. "A Power-Efficient Neural Tissue Stimulator with Energy Recovery," IEEE Trans. on Biomedical Circuits and Systems, accepted for publication in 2010.
2. D. B. Shire, S. K. Kelly, J. Chen, P. Doyle, M. D. Gingerich, S. F. Cogan, W. Drohan, O. Mendoza, L. Theogarajan, J. L. Wyatt, and J. F. Rizzo "Development and Implantation of a Minimally-Invasive, Wireless Sub-Retinal Neurostimulator" IEEE Transactions on Biomedical Engineering, Vol. 56, No. 10, Oct. 2009, pp. 2502-2511. (Featured cover article.)
3. S.K. Kelly, D.B. Shire, J. Chen, P. Doyle, M.D. Gingerich, W.A. Drohan, L.S. Theogarajan, S.F. Cogan, J.L. Wyatt, J.F. Rizzo III. "Realization of a 15-Channel, Hermetically-Encased Wireless Subretinal Prosthesis for the Blind." Proc. IEEE Engineering in Medicine and Biology Conference, 2009, pp. 200-203.
4. Rizzo, J.F., J. Wyatt, J. Loewenstein, S. Kelly and D. Shire, "Perceptual Efficacy of Electrical Stimulation of Human Retina with a Microelectrode Array During Short-Term Surgical Trials," Investigative Ophthalmology and Visual Science, vol. 44, no. 12, pp. 5362-5369, December 2003.
5. Rizzo, J.F., J. Wyatt, J. Loewenstein, S. Kelly and D. Shire, "Methods and Perceptual Thresholds for Short-Term Electrical Stimulation of Human Retina with Microelectrode Arrays," Investigative Ophthalmology and Visual Science, vol. 44, no. 12, pp. 5355-5361, December 2003.

(ii) Selected other relevant publications, presentations, and patents:

6. J. Wyatt, K. Kelly and J. Rizzo, "System for and Method of Power Efficient Electrical Tissue Stimulation," U.S. Patent No. 7,295,872, 2008.

7. L. Theogarajan, J. Wyatt, J. Rizzo, et al., "Minimally Invasive Retinal Prosthesis," IEEE International Solid-State Circuits Conference (ISSCC), San Francisco, CA, February 2006.

8. R. Hornig, T. Laube, P. Walter, M. Velikay-Parel, N. Bornfeld, M. Feucht, H. Akguel, G. Rossler, N. Alteheld, D. L. Notarp, J. Wyatt and G. Richard, "A Method and Technical Equipment for an Acute Human Trial to Evaluate Retinal Implant Technology," J. Neural Engineering, vol 2, no.1, pp. S129-S134, March 2005.

9. J. Rizzo, J.L. Wyatt, L. Theogarajan, "Ab Externo Retinal Prosthesis," U.S. Patent No. 6,976,998 B2, Dec. 20, 2005.

10. Jensen, R., J.F. Rizzo, O.R. Ziv, A. Grumet, J. Wyatt, "Thresholds for activation of rabbit retinal ganglion cells with an ultra-fine, extracellular microelectrode," Invest. Ophthalmol. Vis. Sci., vol. 44, no. 8, pp. 3533-3543, August 2003.

#### **d. Synergistic Activities**

|             |   |
|-------------|---|
| 1987        | Technical Staff, MIT Lincoln Laboratory, Lexington, MA                                    |
| 1987        | Visiting Associate Professor, Dept. Computer Science, Caltech, Pasadena, CA               |
| 1994-1997   | Member of DARPA Defense Sciences Research Council   |
| 1994        | Chair, Session on Retinally-Based Vision Microchips, FASEB Conference, Saxton's River, VT |
| 1995        | Senior Member, IEEE (Institute of Electrical and Electronics Engineering)                 |
| 1995 & 1997 | Guest Investigator, Woods Hole Oceanographic Institute, Woods Hole, MA                    |
| 1995        | Co-Chairman, Visual Prosthetics Session, Biomedical Engineering Society Annual Meeting    |