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To the Committee:

This is in regard to the consideration of Dr. Joel Tabak for a junior faculty appointment in neuroscience. In short I have a high regard for Dr. Tabak as an interdisciplinary research neuroscientist - one of those rare individuals who can combine successfully both theoretical and experimental approaches.

I have known Joel since he first came to the lab of Dr. Michael O'Donovan at the NIH about 6 years ago. At that time I had adopted a wait-and-see attitude about Joel. We began working closely on the modeling project that O'Donovan and I had started. Soon, I realized that Tabak understood the model with depth... and my positive impression has continued to grow over these years. Joel has made some very important contributions to the modeling effort - well beyond helping to do simulations and analysis. For example, the idea was Joel's of the synaptic blocking experiments (in the computational and biological preparations) to help distinguish between two fundamentally different mechanisms to explain the episodic behaviors. He came to this insight from his deep understanding of the model, from a good biophysical mechanistic intuition, and from his general neurophysiological expertise, and with the embryonic chick spinal cord in particular. I am very proud of our 2001 paper in the *Journal of Neuroscience* on these results; it represents a synergy of theory and experiment that renders envious a number of my neuroscientist colleagues. For the 2002 paper, again it was a good idea of Joel to use the model and predict the correlations that should be seen experimentally, and then to confirm them.

Our interactions continued to be productive and satisfying after my move to NYU. Joel has been an effective advisor and mentor for the NYU graduate students that have come to the NIH for summer projects and for thesis research. I value his opinions and ideas on this work, like an equal collaborator.

In my view, Joel is highly capable now in theory and experimental methods, is showing good creativity and original thinking - he operates rather independently. He has made important contributions to O'Donovan's research program. I would usually expect more publications on a CV with someone 6 years after PhD but it should be appreciated that experiments on this preparation are very time consuming. I am confident that Joel is ready to become a tenure-

track neuroscientist. I urge you to consider him carefully, as one of the few folks that do both theory and experiment well.

Sincerely yours,

John Rinzel  
Professor of Neural Science and Mathematics