



December 1, 2003

Letter of recommendation for **Elena Tolkacheva**:

Dr. Elena Tolkacheva has been working as a postdoc with myself and others at Duke for the last two years. She is an extremely talented and dedicated individual; I recommend her most highly.

Lena completed a Ph.D. in nonlinear optics. This work was performed in France, although she came from Belarus (where her children were still living) and her husband was in this country. Then, so that her family could be reunited, she accepted a postdoc at Duke, even though this meant a complete change of field, to cardiac dynamics. She rapidly acquired the basic knowledge in the new field and progressed to researching questions on the frontier.

Her two years in cardiac dynamics have been admirably productive. The main thrust of her work has been to extract behavior predicted by several mathematical models for the dynamics of cardiac membrane. For this task she has used an efficient combination of analytical and numerical techniques. Indeed, such is her progress that she has been given partial responsibility for mentoring graduate students in our group. Moreover, she continues to expand her understanding of broader issues in the field, including developing the competence to perform experiments.

May I relate an anecdote that illustrates how hard she works: The afternoon of the day after she arrived in this country from Belarus, moving here with two children and her personal belongings, to my astonishment, she came to Duke and began our discussions of research!

I recommend Lena highly, but I secretly hope that you will not be successful in attracting her because if she leaves, she will be greatly missed.

Sincerely,

David G. Schaeffer
James B. Duke Professor
of Mathematics