



ROBERT WOOD JOHNSON
MEDICAL SCHOOL

University of Medicine & Dentistry of New Jersey

Department of Biochemistry

September 21, 2005

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Systems Biology/Microbiology Faculty Search
Department of Biology
Indiana University
Jordan Hall 142, 1001 E 3rd St.
Bloomington IN 47405-7005

Dear Search Committee:

I am writing to indicate my enthusiastic support of Dr. Naum Gershenzon in his application for assistant professor. Dr. Gershenzon and I have been collaborators over the past year and a half, and which has resulted in a manuscript in press at Molecular and Cellular Biology. I had been looking for a collaborator in bioinformatics who also had interests in transcriptional regulation and core promoters. Naum and I met at a Cold Spring Harbor meeting last spring where his work caught my attention.

I had found a novel downstream core promoter element (hereafter referred to as the DCE) and had done most of the experimental work but I did not have the expertise in bioinformatics to assess its statistical significance. Dr. Gershenzon's knowledge of this field made this possible. He had been examining eukaryotic core promoters on his own and has recently published an important statistical analysis of core promoter distributions in the human genome. In our collaboration, he examined two promoter databases and determined the distribution of the DCE in a variety of promoter contexts. He also found that the most prevalent DCE sequences in the genome matched my experimentally-derived sequences. This observation was instrumental in validating the accuracy of the experimental work and the global applicability of the DCE.

Dr. Gershenzon and I are continuing our collaboration to search for other types of core promoter elements that I believe exist. This should be a very fruitful collaboration as our fields of expertise complement nicely. I have found Naum to be very helpful and receptive to questions and suggestions concerning our analysis. His enthusiasm is also quite refreshing. I also feel that his published work indicates sufficient initiative to pursue his own independent research. Additionally, his physics/mathematics background will add an extra dimension to his bioinformatics work and extend his research into systems biology. He does excellent work and is very professional. In short, he is a pleasure to have as a collaborator. He has my highest recommendation.

Sincerely,

Brian A. Lewis, Ph.D.
Adjunct assistant professor



October 6, 2005

Yves Brun,
Systems Biology/Microbiology Faculty Search,
Department of Biology,
Indiana University,
Jordan Hall 142, 1001 E 3rd St,
Bloomington IN 47405-7005
E-mail: ybrun@indiana.edu

Dear Yves Brun,

I am pleased to express my support for Dr. Naum Gershenzon. From 1980 when he started working in the Institute of Physics of the Earth (Moscow, Russia) up to 1990 when I moved to Israel, we worked in the same department. I was also his PhD co-adviser from 1980-1983.

The main areas in which we worked together were hydrodynamics, electrodynamics and random processes in ionospheric plasmas. In particular, we were able to show that a certain type of geomagnetic variation in the vicinity of the polar caps could be explained by the hydrodynamic convection of ionospheric plasma produced by the injection of energetic electric particles from the magnetosphere and/or solar wind. We also modeled the geoelectric and geomagnetic fields caused by random inhomogeneities in ionospheric conductivity, and were able to explain the nature of sporadic geomagnetic disturbances at mid-latitudes on the Earth's surface.

I want to emphasize here his keen insight into scientific problems, his ability to model complicated physical systems requiring interdisciplinary knowledge and to apply mathematical techniques appropriately balanced between the complexity of the system and the mathematical simplicity of the model.

We have jointly participated in several projects, including field experiments, and taken part in many conferences, and I can confirm that Naum is an easy person to work with. He is enthusiastic, able to generate ideas and implement them, and is ideal as a team player.

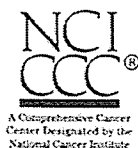
Overall, I certainly recommend Dr. Naum Gershenzon for a tenure-track faculty position or an appropriate research position in Systems Biology/Microbiology Systems Biology/Microbiology.

Sincerely,
Leonid S. Alperovich
Professor
Phone Number : 972-3-6407411
Email : leonid@frodo.tau.ac.il



Human Cancer Genetics
Comprehensive Cancer Center

Medical Research Facility
420 West 12th Avenue
Columbus, OH 43210



October 3, 2005

Robert S. Balaban, Ph.D., Scientific Director,
NHLBI c/o Ms. Carol Smith
LBC, NHLBI
National Institutes of Health
Building 50, Room 3518, MSC 8013
Bethesda, Maryland 20892

Dear Dr. Balaban:

This letter is written to recommend Dr. Naum Gershenzon for the position in your department. Naum is currently a postdoctoral fellow in Ilya Ioschikhes group in the Department of Biomedical Informatics at Ohio State University. I have known Naum for approximately one year as a bioinformatics collaborator on projects of joint interest.

Naum has taken an interesting path to computational biology. Trained as a physicist and mathematician in Moscow, he became a programmer for commercial sources after immigrating to the US. A few years back, he decided he wanted to return to academics and decided on computational biology/bioinformatics as the area to focus on for his second academic career. He has worked on annotation of the human and mouse genome, and developed improved methods for identifying transcription factor binding sites in proximal promoters of mammalian genes. These same methods work for enhancer binding sites, and we have worked together on defining ets-family sites in genes. Naum has interesting new approaches for using microarray data, both RNA expression data and CHIP-on-chip data, to develop mathematical models of transcriptional networks that we have also recently been pursuing together. I find him to be intelligent, persistent, organized and goal-orientated. We will often discuss an experimental problem, and he will ask for papers to give him additional background. He digs further into the literature, and then comes up with computational or mathematical approaches to address the original problem we have discussed. From my perspective as an experimentalist, he is the perfect computational/bioinformatics collaborator, and interactions with him are always stimulating.

In conclusion, I highly recommend Naum for your position without reservations. We are trying actively to keep him here at OSU, but I'm sure you would find him to be a valuable addition to your research team.

Sincerely,

A handwritten signature in cursive script that reads 'Michael C. Ostrowski'.

Michael C. Ostrowski, Professor
Human Cancer Genetics
Distinguished Professor of Biological Sciences