



DEPARTMENT OF BIOLOGICAL SCIENCES
SECTION OF EVOLUTION AND ECOLOGY
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To Whom It May Concern:

11/25/04

This is a letter of recommendation for Jason Mezey who is applying for Assistant Professor position in your Department. Jason has been working in my lab for about a year on a multitude of genomics and quantitative genetic projects, thus I am well-familiar with his creative, analytical, and lab skills.

To put it simply, Jason has built himself as the first rate scientist working at frontiers of modern quantitative biology. His Ph. D. training was with Gunter Wagner. Jason was developing models of pathways and their evolution. He then moved on to work with David Houle – the leader of multi-dimensional consideration of quantitative variation. Jason made brilliant statistical advances. Further, he established himself as a lab person with the skill to design and implement complex large-scale quantitative genetic experiments. Finally, he joined my lab to complement these skills with modern-age experimental techniques of analysis of quantitative traits. During all these training experiences, Jason was very productive. He published manuscripts that were superbly executed, in which science was not oversold or overstated. Rather, they are detailed, innovative, solid, and honest pieces of work.

As a result of these broad training experiences, Jason has developed in exactly a kind of scientist that can take full advantage of new technology developments. Suppose one wanted to test which of proteins from two closely related species are responsible for adaptation to different environments. It requires knowledge of high-resolution genomic techniques, ability to grow tested organisms in such a design that sources in protein concentration variation will be possible to partition, use of statistics on complex structure data sets, and finally quantitative models of how identified protein variation contributes – through the known or predicted metabolic pathway – to the phenotype and adaptation. Jason can completely do it all, and accomplish such a research program in a creative and efficient way. I know very few scientists in Evolution and Ecology field with such a combination of skills. One prototype would be Andy Clark. And such scientists are and will be in much demand. As only they are integrative enough to stay current as biology goes through current technological revolution. I fully recommend you to choose Jason as such a scientist joining your department.


This recommendation is fully justified by Jason's record in my lab. During his first post doc year, he accomplished one very serious QTL mapping study in press in Genetics. He implemented comparison between *Drosophila* species with whole genome microarray techniques. Two papers will come out of it. One is completely ready, but Jason decided to withhold submission till the *D. yakuba* genome is published. This clearly illustrates Jason's integrity. He is sitting on superb data set in which some unpublished genomic information has been used. One of regarded (and the only correct) approaches in this case – wait till it is published. If not for that, I am sure Jason would report another magazine paper in his CV. He has

analyzed expression data in completely innovative way showing that expression of closely positioned genes is co-evolving. As the idea of analysis and its implementation should be fully credited to Jason, I withdrew from the authors of this manuscript – it's Jason's baby. Another manuscript will represent an evidence – contrary to the recently published inferences – that transcriptome evolves more than expected with the neutrality assumption. There are 3 more papers down the road, which would not materialize without Jason.

Needless to say, Jason works with complete devotion. But he is very receptive to the needs of others in the lab. As his statistical expertise is the biggest in the lab, he contributes to success of other research programs in the lab – teaching, programming, and discussing his and others' ideas.

I am confident Jason is mature enough for the leadership needed to build and head the lab. He has vision, guts, intelligence, respect for colleagues, and devotion to science. His teaching should be enjoyable to students as he is very clearly thinking and engaging. Center for Population Biology in UCD has an unbroken history of fellows (I believe it is 16 now) hired straight to faculty positions. Compared to this crowd, Jason stands as one of the strongest.

Yours truly,
Sergey Nuzhdin

A handwritten signature in black ink, appearing to read "Sergey Nuzhdin". The signature is written in a cursive, flowing style with a long horizontal tail at the end.