



Mitzi I. Kuroda, Ph.D. Professor of Genetics

December 8, 2014

To Whom It May Concern:

I am writing this letter in support of **Professor Igor F. Zhimulev**, Director of the Institute of Molecular and Cell Biology. I am a Professor of Genetics at Harvard Medical School, a member of the National Academy of Sciences of the United States of America, and of the American Academy of Arts and Sciences. I received my Ph.D. degree from Stanford University, and am a past recipient of the National Science Foundation Presidential Young Investigator and Searle Scholar Awards. My research in chromatin organization, epigenetic regulation, sex chromosomes and dosage compensation has been continuously funded by the National Institutes of Health for 25 years. I consider myself well-qualified to evaluate Dr. Zhimulev's work, and I have the highest regard for his academic achievements.

Professor I,F. Zhimulev is an internationally prominent scientist working in the field of polytene chromosome organization. These chromosomes have been the best model for understanding eukaryotic interphase chromosomes. Dr. Zhimulev pioneered the molecular analysis of cloned puff regions, controlled by ecdysterone, and demonstrated the complex organization of genes within these regions. He formulated the idea of intercalary heterochromatin as consisting of highly repressed chromosome regions and described its parameters. Furthermore, he discovered the *SUUR* gene, which plays a key role in the delay of replication of heterochromatin in *Drosophila*. He also pioneered the idea of position effect variegation as being the result of DNA compaction under the influence of inactive heterochromatin.

Currently, Professor Zhimulev is actively working to analyze the large amounts of data on chromatin structure obtained from the international modEncode project. He is already an author of more than 350 scientific works including 3 monographs in Russian and 3 monographs in English (published in Academic Press, USA) about polytene chromosomes, 4 editions of the textbook "General and Molecular Genetics" (in Russian) and the textbook "Chromosomes. Structure and Functions" 2009 (in Russian).

I have a very positive impression from meeting Dr. Zhimulev at international meetings and interacting for many years with young people whose initial training was in his laboratory. Based on his outstanding scientific accomplishments, and his strong leadership, I strongly support the state of his Institute as a National Research Institute in the Russian Federation with Prof. Igor Zhimulev as its director.

Sincerely,

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Member, National Academy of Sciences of the United States of America Professor of Medicine and Genetics Harvard Medical School

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