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To Whom It May Concern,

We are writing to express our support for the work of Professor I.F. Zhimulev, Director of the Institute of Molecular and Cell Biology, and to express our support for the on-going work of his Institute.

Professor Zhimulev is a distinguished scientific leader whose admirable international reputation reflects the significance of his work for our understanding of genetics and development. He has been a leader in the study of chromosome organization, using the giant (polytene chromosomes) of *Drosophila* with great success to model the organization of eukaryotic interphase chromosomes. Specifically,

- He has led the way in developing our understanding of the functional organization of interphase chromosomes and chromomeres. He has developed ideas concerning the dynamic chromomere and demonstrated their value experimentally.
- He predicted and demonstrated the cytogenetic and molecular anatomy of the individual chromomere, showed its polygeny and functional independence of the genes being its parts.
- He obtained evidence demonstrating of the transcriptional activity of interchromomeres and cloned the DNA sequences of interchromomeric regions.
- He formulated the idea of heterochromatic regions as a system of highly repressed parts of genome.
- He has discovered numerous genes (and gene clusters) that play crucial roles in both hormone responses and in the structure and replication of chromosomes,
- He has described components of the system of genetic silencing of the early embryogenesis genes and the genes under position effect variegation.
- He showing how chromosome puffing can be used to study the differential expression of genes, described the puff spectrums during development and during hormonal responses.
- He formulated the idea of intercalary heterochromatin as highly repressed chromosome regions and described its parameters.

- He showed how position effect variegation can be understood as being the result of DNA compactization under the influence of inactive heterochromatin
- He is an author of more than 350 scientific works including 3 monographs on Russian and 3 monographs on English (published in Academic Press, USA), 4 editions of the textbooks “General and molecular genetics” (in Russian) and the textbook “Chromosomes. Structure and functions” 2009 (in Russian).

In short, Professor Zhimulev is an immensely distinguished geneticist whose work has influenced that of biologists working at the cutting edge of molecular biology all over the world. His plenary talk at the National Drosophila Research Conference, USA (a meeting attended by >1500 scientists) was described by many as the “high-point” of the meeting. It has been an honor to collaborate with Professor Zhimulev and we hope to have the opportunity to do so again in the future.

We, the signatories, have attached our CVs to this letter.

We support the status of this Institute as a National Research Institute in Russian Federation.

Yours very truly,



Peter Cherbas  
Professor of Biology, Emeritus  
Adjunct Professor of Informatics and Computing, Emeritus



Lucy Cherbas  
Senior Scientist, Biology  
Cell Lines Unit Leader, Drosophila Genomics Resource Center