

Александр Спиров – старший научный сотрудник, работает в лаборатории с 1992 года. Окончил биофак ЛГУ в 1978 г, кафедра биохимии. Канд.биол.наук с 1987 г. Научные интересы Спинова сосредоточены на этих пересекающихся междисциплинарных областях: 1) системно-биологические исследования, теоретические и экспериментальные, устойчивости эмбрионального развития на примере эмбриональной сегментации дрозофилы; 2) натуральные вычисления, включая генетические алгоритмы, инспирированные ретровиральной рекомбинацией; 3) функциональная геномика, включая генные сети на основе гомеобокс-генов.



Alexander V. Spirov is a senior researcher in the Sechenov Institute of Evolutionary Physiology and Biochemistry, St.-Petersburg, Russia. Dr. Spirov received M.S. degree in molecular biology in 1978 from the St.-Petersburg State University, St.-Petersburg, Russia. He received his Ph.D. in the area of biometrics in 1987 from the Irkutsk State University, Irkutsk, Russia. His research interests focus on those broad areas: understanding embryonic robustness via quantitative experiments and theory (early *Drosophila* segmentation); using variable expressivity to understand the mechanisms of phenotypic stability (*Drosophila* segmentation, etc); Natural Computing, including Genetic Algorithms inspired by retroviral recombination; functional genomics of gene ensembles, among which the key players are the homeobox genes (HOX pro Web base <http://www.iephb.nw.ru/hoxpro>).

Наиболее значимые публикации

1. Title: Characterization of the *Drosophila* segment determination morphome

Author(s): Surkova, S; Kosman, D; Kozlov, K; et al.

Source: Developmental Biology Volume: 313 Issue: 2 Pages: 844-862 Published: JAN 15 2008

2. Title: Formation of the bicoid morphogen gradient: an mRNA gradient dictates the protein gradient

Author(s): Spirov, A; Fahmy, K; Schneider, M; et al.

Source: Development Volume: 136 Issue: 4 Pages: 605-614 Published: FEB 15 2009

3. Title: Canalization of Gene Expression in the Drosophila Blastoderm by Gap Gene Cross Regulation

Author(s): Manu; Surkova, S; Spirov, AV; et al.

Source: Plos Biology Volume: 7 Issue: 3 Pages: 591-603 Published: MAR 2009

4. Title: Canalization of Gene Expression and Domain Shifts in the Drosophila Blastoderm by Dynamical Attractors

Author(s): Manu; Surkova, S; Spirov, AV; et al.

Source: Plos Computational Biology Volume: 5 Issue: 3 Published: MAR 2009

5. Title: Analysis of pattern precision shows that Drosophila segmentation develops substantial independence from gradients of maternal gene products

Author(s): Holloway, DM; Harrison, LG; Kosman, D; et al.

Source: Developmental Dynamics Volume: 235 Issue: 11 Pages: 2949-2960 Published: NOV 2006

6. Title: Spatial Bistability Generates hunchback Expression Sharpness in the Drosophila Embryo

Author(s): Lopes, FJP; Vieira, FMC; Holloway, DM; et al.

Source: Plos Computational Biology Volume: 4 Issue: 9 Published: SEP 2008