

Alexander Y. Mitrophanov, Ph.D.

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RESEARCH EXPERIENCE AND EMPLOYMENT HISTORY

- Aug 2020–present: **Senior Statistician**, Frederick National Laboratory for Cancer Research, National Institutes of Health (NIH), Frederick, MD
- Jan 2014–Jul 2020: **Research Scientist III**, The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. (HJF), Frederick, MD
- Aug 2009–Dec 2013: **Research Scientist II**, HJF, Frederick, MD
- Oct 2006–Aug 2009: **Postdoctoral Associate**, Washington University School of Medicine (St. Louis, MO), Department of Molecular Microbiology
- Sep 2004–Sep 2006: **Postdoctoral Fellow**, Georgia Institute of Technology (Atlanta, GA), School of Biology
- Sep 2001–Aug 2004: **Research Scientist and Mathematician**, Saratov State University (Saratov, Russia)

EDUCATION

- Oct 2002: Ph.D. in Mathematics, Saratov State University
Thesis: “Stability Estimates for Stochastic Models of Interacting Particle Systems”
- Jun 2001: B.S./M.S. in Biology, Saratov State University
Graduated *summa cum laude*
Specialty: Biochemistry and Biophysics
- Jun 1998: B.S./M.S. in Applied Mathematics, Saratov State University
Graduated *summa cum laude*
Specialty: Systems Analysis and Operations Research

HONORS, AWARDS, AND SCHOLARSHIPS

- Jan 2019: Marquis Who’s Who Lifetime Achievement
- Sep 2014, Sep 2019: HJF Certificate of Appreciation
- Jan 2013: HJF Superior Performance Award
- Aug 2011: Certificate of Achievement (Best Poster Award), Advanced Technology Applications in Combat Casualty Care Steering Committee, U.S. Department of the Army
- May 2007–Aug 2009: Associate, Howard Hughes Medical Institute
- Sep 1995–Jun 1998: Bogomolov Scholarship (Saratov State University)
- Aug 1993–Jun 1994: Participant in the Freedom Support Act Future Leaders Exchange Program (FSAFLEX) sponsored by the U.S. Government

PROFESSIONAL SERVICE

- Editorial Board Member (Computational Sciences) for *Scientific Reports* (October 2023–present)
- Associate Editor (Computational Physiology and Medicine) for *Frontiers in Physiology* (May 2021–present)
- Associate Editor (Molecular and Translational Medicine) for *Biomedicines* (September 2022–present)
- Associate Editor (Systems Biology) for *Frontiers in Genetics*, *Frontiers in Neuroscience*, *Frontiers in Physiology*, and *Frontiers in Applied Mathematics and Statistics* (Jan 2020–May 2021)
- *Ad hoc* reviewer of grant applications for the USA–Israel Binational Science Foundation and the NIH (special emphasis panel, National Heart Lung and Blood Institute)
- *Ad hoc* reviewer for the *Journal of Thrombosis and Haemostasis*, *Thrombosis and Haemostasis*, *Thrombosis Research*, *Anesthesiology*, *Frontiers in Cardiovascular Medicine*, *Frontiers in Immunology*, *Anesthesia & Analgesia*, *Drug Design Development and Therapy*, *World Journal of Gastroenterology*, *Journal of Physiology and Pharmacology*, *Acta Biomaterialia*, *Current Pharmaceutical Biotechnology*, *Journal of Clinical Endocrinology and Metabolism*, *BMC Systems Biology*, *Molecular Systems Biology*, *PLOS Pathogens*, *PLOS Genetics*, *PLOS ONE*, *Journal of Molecular Biology*, *Molecular Microbiology*, *Annals of Biomedical Engineering*, *Journal of Biomechanics*, *Biophysical Journal*, *PLOS Computational Biology*, *Bioinformatics*, *BMC Bioinformatics*, *Briefings in Bioinformatics*, *Journal of Bioinformatics and Computational Biology*, *Mathematical Biosciences*, *Journal of the Royal Society Interface*, *Frontiers in Physiology*, *Mathematical Medicine and Biology*, *Biomechanics and Modeling in Mechanobiology*, *Journal of Theoretical Biology*, *Bernoulli*, *Stochastic Models*, *Methodology and Computing in Applied Probability*, *Linear Algebra and Its Applications*, *Journal of Applied Probability*, *Mathematical Inequalities and Applications*, *Markov Processes and Related Fields*, *Applied Mathematics and Computation*, SummerSim conference, *zbMATH*

MEMBERSHIP IN PROFESSIONAL SOCIETIES

2018–present: Institute of Mathematical Statistics
2006–present: International Society for Computational Biology

SELECTED PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Biswas, K., **Mitrophanov, A. Y.**, Sahu, S., Sullivan, T., Southon, E., Noursome, D., Reid, S., Narula, S., Smolen, J., Sengupta, T., Riedel-Topper, M., Kapoor, M., Babbar, A., Stauffer, S., Cleveland, L., Tandon, M., Malys, T., and Sharan, S. K. (2023) Sequencing-based functional assays for classification of *BRCA2* variants in mouse ES cells. *Cell Reports Methods* 3: 100628.
2. Sahu, S., Sullivan, T. L., **Mitrophanov, A. Y.**, Galloux, M., Noursome, D., Southon, E., Caylor, D., Mishra, A. P., Evans, C. N., Clapp, M. E., Burkett, S., Malys, T., Chari, R., Biswas, K., and Sharan, S. K. (2023) Saturation genome editing of 11 codons and exon 13 of *BRCA2* coupled with chemotherapeutic drug response accurately determines pathogenicity of variants. *PLOS Genetics* 19: e1010940.
3. Pandkar, M. R., Raveendran, A., Biswas, K., Mutnuru, S. A., Mishra, J., Samaiya, A., Malys, T., **Mitrophanov, A. Y.**, Sharan, S. K., and Shukla, S. (2023) PKM2 dictates the poised chromatin state of PFKFB3 promoter to enhance breast cancer progression. *NAR Cancer* 5: zcad032.

4. **Mitrophanov, A. Y.**, Vandyck, K., and Tanaka, K. A. (2022) Thrombin generation in trauma patients: how do we navigate through Scylla and Charybdis? *Current Anesthesiology Reports* 12: 308-319.
5. Grover, S. P., Bendapudi, P. K., Yang, M., Merrill-Skoloff, G., Govindarajan, V., **Mitrophanov, A. Y.**, and Flaumenhaft, R. (2020) Injury measurements improve interpretation of thrombus formation data in the cremaster arteriole laser-induced injury model of thrombosis. *Journal of Thrombosis and Haemostasis* 18: 3078-3085.
6. **Mitrophanov, A. Y.**, Merrill-Skoloff, G., Grover, S. P., Govindarajan, V., Kolanjiyil, A., Hariprasad, D. S., Unnikrishnan, G., Flaumenhaft, R., and Reifman, J. (2020) Injury length and arteriole constriction shape clot growth and blood-flow acceleration in a mouse model of thrombosis. *Arteriosclerosis, Thrombosis, and Vascular Biology* 40: 2114-2126.
7. **Mitrophanov, A. Y.**, Szlam, F., Sniecinski, R. M., Levy, J. H., and Reifman, J. (2020) Controlled multifactorial coagulopathy: effects of dilution, hypothermia, and acidosis on thrombin generation *in vitro*. *Anesthesia & Analgesia* 130: 1063-1076.
8. **Mitrophanov, A. Y.**, Govindarajan, V., Zhu, S., Li, R., Lu, Y., Diamond, S. L., and Reifman, J. (2019) Microfluidic and computational study of structural properties and resistance to flow of blood clots under arterial shear. *Biomechanics and Modeling in Mechanobiology* 18: 1461-1474.
9. Nagaraja, S., Chen, L., DiPietro, L. A., Reifman, J., and **Mitrophanov, A. Y.** (2019) Predictive approach identifies molecular targets and interventions to restore angiogenesis in wounds with delayed healing. *Frontiers in Physiology* 10: 636.
10. Hobbs, S., Reynoso, M., Geddis, A. V., **Mitrophanov, A. Y.**, and Matheny, R. W. (2018) LPS-stimulated NF- κ B p65 dynamic response marks the initiation of TNF expression and transition to IL-10 expression in RAW 264.7 macrophages. *Physiological Reports* 6: e13914.
11. Govindarajan, V., Zhu, S., Li, R., Lu, Y., Diamond, S. L., Reifman, J., and **Mitrophanov, A. Y.** (2018) Impact of tissue factor localization on blood clot structure and resistance under venous shear. *Biophysical Journal* 114: 978-991.
12. Nagaraja, S., Chen, L., DiPietro, L. A., Reifman, J., and **Mitrophanov, A. Y.** (2018) Computational analysis identifies putative prognostic biomarkers of pathological scarring in skin wounds. *Journal of Translational Medicine* 16: 32.
13. Chen, L., Nagaraja, S., Zhou, J., Zhao, Y., Fine, D., **Mitrophanov, A. Y.**, Reifman, J., and DiPietro, L. A. (2017) Wound healing in Mac-1 deficient mice. *Wound Repair and Regeneration* 25: 366-376.
14. **Mitrophanov, A. Y.**, Szlam, F., Sniecinski, R. M., Levy, J. H., and Reifman, J. (2017) In response to "Clinical and practical aspects of restoring thrombin generation in acute coagulopathic bleeding." *Anesthesia & Analgesia* 124: 702.
15. **Mitrophanov, A. Y.**, Szlam, F., Sniecinski, R. M., Levy, J. H., and Reifman, J. (2017) In response to "If the goal is balance, why not fresh frozen plasma?" *Anesthesia & Analgesia* 124: 699-700.
16. Nagaraja, S., Chen, L., Zhou, J., Zhao, Y., Fine, D., DiPietro, L. A., Reifman, J., and **Mitrophanov, A. Y.** (2017) Predictive analysis of mechanistic triggers and mitigation strategies for pathological scarring in skin wounds. *Journal of Immunology* 198: 832-841.
17. **Mitrophanov, A. Y.**, Szlam, F., Sniecinski, R. M., Levy, J. H., and Reifman, J. (2016) A step toward balance: thrombin generation improvement via procoagulant factor and antithrombin supplementation. *Anesthesia & Analgesia* 123: 535-546.

18. Govindarajan, V., Rakesh, V., Reifman, J., and **Mitrophanov, A. Y.** (2016) Computational study of thrombus formation and clotting factor effects under venous flow conditions. *Biophysical Journal* 110: 1869-1885.
19. Tomaiuolo, M., Kottke, M., Matheny, R. W., Reifman, J., and **Mitrophanov, A. Y.** (2016) Computational identification and analysis of signaling subnetworks with distinct functional roles in the regulation of TNF production. *Molecular BioSystems* 12: 826-838.
20. Nagaraja, S., Reifman, J., and **Mitrophanov, A. Y.** (2015) Computational identification of mechanistic factors that determine the timing and intensity of the inflammatory response. *PLoS Computational Biology* 11: e1004460.
21. **Mitrophanov, A. Y.**, Rosendaal, F. R., and Reifman, J. (2015) Mechanistic modeling of the effects of acidosis on thrombin generation. *Anesthesia & Analgesia* 121: 278-288.
22. **Mitrophanov, A. Y.**, Wolberg, A. S., and Reifman, J. (2014) Kinetic model facilitates analysis of fibrin generation and its modulation by clotting factors: implications for hemostasis-enhancing therapies. *Molecular BioSystems* 10: 2347-2357.
23. Nagaraja, S., Wallqvist, A., Reifman, J., and **Mitrophanov, A. Y.** (2014) Computational approach to characterize causative factors and molecular indicators of chronic wound inflammation. *Journal of Immunology* 192: 1824-1834.
24. **Mitrophanov, A. Y.**, Rosendaal, F. R., and Reifman, J. (2013) Computational analysis of the effects of reduced temperature on thrombin generation: the contributions of hypothermia to coagulopathy. *Anesthesia & Analgesia* 117: 565-574.
25. **Mitrophanov, A. Y.**, Rosendaal, F. R., and Reifman, J. (2012) Therapeutic correction of thrombin generation in dilution-induced coagulopathy: computational analysis based on a data set of healthy subjects. *Journal of Trauma and Acute Care Surgery* 73: S95-S102.
26. **Mitrophanov, A. Y.**, Rosendaal, F. R., and Reifman, J. (2012) Computational analysis of intersubject variability and thrombin generation in dilutional coagulopathy. *Transfusion* 52: 2475-2486.
27. **Mitrophanov, A. Y.** and Reifman, J. (2011) Kinetic modeling sheds light on the mode of action of recombinant factor VIIa on thrombin generation. *Thrombosis Research* 128: 381-390.
28. **Mitrophanov, A. Y.**, Hadley, T. J., and Groisman, E. A. (2010) Positive autoregulation shapes response timing and intensity in two-component signal transduction systems. *Journal of Molecular Biology* 401: 671-680.
29. **Mitrophanov, A. Y.** and Groisman, E. A. (2010) Response acceleration in post-translationally regulated genetic circuits. *Journal of Molecular Biology* 396: 1398-1409.
30. **Mitrophanov, A. Y.**, Jewett, M. W., Hadley, T. J., and Groisman, E. A. (2008) Evolution and dynamics of regulatory architectures controlling polymyxin B resistance in enteric bacteria. *PLoS Genetics* 4: e1000233.
#Equal authorship
31. **Mitrophanov, A. Y.** and Groisman, E. A. (2008) Signal integration in bacterial two-component regulatory systems. *Genes and Development* 22: 2601-2611.
32. **Mitrophanov, A. Y.** and Groisman, E. A. (2008) Positive feedback in cellular control systems. *Bioessays* 30: 542-555.

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33. Kato,[#] A., **Mitrophanov,[#] A. Y.**, and Groisman, E. A. (2007) A connector of two-component regulatory systems promotes signal amplification and persistence of expression. *Proceedings of the National Academy of Sciences USA* 104: 12063-12068.
#Equal authorship
 34. **Mitrophanov, A. Y.**, Churchward, G. and Borodovsky, M. (2007) Control of *Streptococcus pyogenes* virulence: modeling of the CovR/S signal transduction system. *Journal of Theoretical Biology* 246: 113-128.
 35. **Mitrophanov, A. Y.** and Borodovsky, M. (2007) Convergence rate estimation for the TKF91 model of biological sequence length evolution. *Mathematical Biosciences* 209: 470-485.
 36. **Mitrophanov, A. Yu.** and Borodovsky, M. (2006) Statistical significance in biological sequence analysis. *Briefings in Bioinformatics* 7: 2-24.
 37. **Mitrophanov, A. Yu.** (2006) Stability estimates for finite homogeneous continuous-time Markov chains. *Theory of Probability and Its Applications* 50: 319-326.
 38. **Mitrophanov, A. Yu.**, Lomsadze, A. and Borodovsky, M. (2005) Sensitivity of hidden Markov models. *Journal of Applied Probability* 42: 632-642.
 39. **Mitrophanov, A. Yu.** (2005) Sensitivity and convergence of uniformly ergodic Markov chains. *Journal of Applied Probability* 42: 1003-1014.
 40. **Mitrophanov, A. Yu.** (2005) Ergodicity coefficient and perturbation bounds for continuous-time Markov chains. *Mathematical Inequalities and Applications* 8: 159-168.
 41. **Mitrophanov, A. Yu.** (2004) The spectral gap and perturbation bounds for reversible continuous-time Markov chains. *Journal of Applied Probability* 41: 1219-1222.
 42. **Mitrophanov, A. Yu.** (2004) Reversible Markov chains and spanning trees. *Mathematical Scientist* 29: 107-114.
 43. **Mitrophanov, A. Yu.** (2004) Note on Zeifman's bounds on the rate of convergence for birth–death processes. *Journal of Applied Probability* 41: 593-596.
 44. **Mitrophanov, A. Yu.** (2003) Stability and exponential convergence of continuous-time Markov chains. *Journal of Applied Probability* 40: 970-979.
 45. Evseeva, N. V., Tkachenko, O. V., Lobachev, Yu. V., **Mitrophanov, A. Yu.**, Djatchouk, T. I., and Shchyogolev, S. Yu. (2002) Studies on the embryogenic processes in the *in vitro* culture of wheat somatic tissues by using a proliferative antigen of initial cells. *Wheat Information Service* 94: 1-4.
 46. **Mitrophanov, A. Yu.** (2001) Stochastic Markov models for the process of binary complex formation and dissociation. *Matematicheskoe Modelirovanie (Mathematical Modeling)* 13 (9): 101-109.

OTHER PUBLICATIONS

Thought leadership, research-community building, scientific outreach

1. **Mitrophanov, A. Y.** (2023) Statistics, stochastics, and data science for systems biology. *IMS Bulletin* 52(7): 19-20.
2. **Mitrophanov, A. Y.** (2022) Quantitative perturbation theory for stochastic processes. *IMS Bulletin* 51(6): 10-11.

SELECTED ORAL PRESENTATIONS

- Jun 2021: "My journey through computational biology"
Meet and Greet Seminar, Advanced Biomedical Computational Science group,
Frederick National Laboratory for Cancer Research. Frederick, MD
- Oct 2020: "Understanding surgical and traumatic coagulopathy: computation meets experiment"
Grand Rounds, Department of Anesthesiology and Critical Care Medicine,
Johns Hopkins University School of Medicine. Baltimore, MD
- Jan 2020: "Systems biology of blood coagulation and coagulopathy"
Special Seminar, Immunetrics, Inc. Pittsburgh, PA
- Dec 2019: "A systems biology approach to traumatic coagulopathy: from disease mechanisms to
therapeutics"
Hematology Seminar, U.S. Food and Drug Administration.
Silver Spring, MD
- Sep 2018: "Connection between the rate of convergence to stationarity and stability under
perturbations for stochastic and deterministic systems"
Dynamics Days Europe. Loughborough, UK
- Apr 2018: "Trauma-induced coagulopathy: insights from a systems biology approach"
Special Seminar, Department of Anesthesiology, University of Maryland School of
Medicine. Baltimore, MD
- Jul 2016: "Identification of essential molecular and cellular processes controlling the response
time and intensity of inflammation"
24th International Conference "Intelligent Systems for Molecular Biology". Orlando, FL
- Aug 2015: "Computational modeling reveals the contributions of distinct signaling subnetworks to
inflammation resolution"
Military Health System Research Symposium. Ft. Lauderdale, FL
- Aug 2014: "Mathematical models can identify biomarkers and mechanisms of chronic wound
inflammation"
Military Health System Research Symposium. Ft. Lauderdale, FL
- Jul 2013: "Systems biology of blood coagulation and coagulopathy"
U.S. Army Medical Research and Development Command (USAMRDC) Special
Seminar. Ft. Detrick, MD
- Oct 2010: "Blood coagulation"
USAMRDC/American Institute of Biological Sciences (AIBS) Special Seminar.
Frederick, MD
- Apr 2010: "Exploring the state of the art in computational modeling of blood coagulation"
NIH/USAMRDC Coagulopathy in Trauma Workshop. Bethesda, MD
- Nov 2009: "Reconstructing gene circuitry"
Interdisciplinary Research Team (discussion group) member
National Academies/Keck Futures Initiative Conference on Synthetic Biology.
Irvine, CA
- Aug 2009: "Quantitative properties of post-translationally regulated genetic circuits"
3rd q-bio Conference on Cellular Information Processing. Santa Fe, NM

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- Jul 2009: "Dynamics of post-translational genetic regulation in enteric bacteria"
BioMathematical Methodology Seminar Series. Stanford University.
Stanford, CA
- Apr 2009: "Quantitative properties of gene regulation circuits: prediction and analysis"
BHS&I Special Seminar. Frederick, MD
- Dec 2008: "Quantitative properties of gene regulation networks: prediction and analysis"
Special Seminar. Department of Environmental Health, University of Cincinnati College
of Medicine. Cincinnati, OH
- Sep 2008: "Structure and dynamic properties of bacterial regulatory circuits"
Washington University Molecular Microbiology Retreat. Grafton, IL
- Jul 2008: "Regulatory architectures and differential control of antibiotic resistance genes in
enteric bacteria"
Gordon Research Conference on Microbial Stress Response. South Hadley, MA
- Nov 2007: "Regulatory architecture and expression dynamics of bacterial virulence genes"
Washington University Infectious Diseases/Basic Microbiological Mechanisms Seminar
Series. St. Louis, MO
- Aug 2006: "Signal transduction in prokaryotes: lessons from mathematical modeling"
Special Seminar. Department of Molecular Microbiology, Washington University School
of Medicine. St. Louis, MO
- Jul 2006: "An optimization algorithm for multiple string matching and its application to exonic
splicing enhancers"
Special Seminar. Department of Biomedical Informatics, Columbia University.
New York, NY
- Oct 2005: "Sensitivity of hidden Markov models"
Stochastics Seminar. Department of Mathematics, Georgia Institute of Technology.
Atlanta, GA
- Sep 2004: "Inequality-based perturbation theory for Markov chains: recent advances"
Stochastics Seminar. Department of Mathematics, Georgia Institute of Technology.
Atlanta, GA
- Jul 2001: "Inequalities for perturbed Markov chains"
2nd All-Russia Symposium on Applied and Industrial Mathematics.
Samara, Russia
- Jun 2000: "A stochastic model of a three-species chemical reaction with an excess of one of the
species"
1st All-Russia Symposium on Applied and Industrial Mathematics.
Petrozavodsk, Russia
- Apr 2000: "A stochastic model of the reaction $A+B \leftrightarrow AB$ "
Undergraduate and Postgraduate International Conference on
Basic Science "Lomonosov-2000." Moscow State University.
Moscow, Russia

SELECTED POSTER PRESENTATIONS

- Jan 2023: Thomas, J. R., Frye, W. E., Inglut, C. T., Robey, R. W., Warner, A. C., Butcher, D., Matta, J., Edmondson, E. F., **Mitrophanov, A. Y.**, Carrington, B., Sood, R., and Gottesman, M. M.
“Development of a high-throughput zebrafish model of blood-brain barrier integrity”
1st Keystone Symposium on ‘Drug Delivery to the Brain: Challenges and Progress.’
Breckenridge, CO
- Aug 2019: Nagaraja, S., Chen, L., DiPietro, L. A., Reifman, J., and **Mitrophanov, A. Y.**
“A strategy to identify putative prognostic biomarkers of pathological scarring in traumatic skin wounds”
Military Health System Research Symposium. Kissimmee, FL
- Apr 2018: Nagaraja, S., Chen, L., DiPietro, L. A., Reifman, J., and **Mitrophanov, A. Y.**
“Computational analysis identifies putative prognostic biomarkers of pathological scarring in traumatic wounds”
Wound Healing Society Annual Meeting. Charlotte, NC
- Oct 2017: Govindarajan, V., Zhu, S., Diamond, S., Reifman, J., and **Mitrophanov, A. Y.**
“Effect of tissue factor and fibrinogen supplementation on clot functional properties under blood flow”
Biomedical Engineering Society Annual Meeting. Phoenix, AZ
- Aug 2015: **Mitrophanov, A. Y.**, Szlam, F., Sniecinski, R. M., Levy, J. H., and Reifman, J.
“Experimental studies validate computational predictions of the therapeutic effects of clotting factor supplementation in coagulopathy”
Military Health System Research Symposium. Ft. Lauderdale, FL
- May 2012: **Mitrophanov, A. Y.**, Rosendaal, F. R., and Reifman, J.
“Computational analysis combined with existing experimental data elucidates the mode of action of factor VIIa on thrombin generation”
6th Symposium on Hemostasis. Chapel Hill, NC
- Aug 2011: **Mitrophanov, A. Y.**, Rosendaal, F. R., and Reifman, J.
“Individualized therapeutic strategy to treat dilutional coagulopathy: a systems biology approach” (**Best Poster Award**)
Advanced Technology Applications for Combat Casualty Care. Ft. Lauderdale, FL
- Oct 2008: **Mitrophanov, A. Y.**, Jewett, M. W., Hadley, T. J., and Groisman, E. A.
“Dynamic properties of bacterial genetic circuits controlling antibiotic resistance”
Frontiers in Multiscale Systems Biology. Atlanta, GA
- Sep 2008: **Mitrophanov, A. Y.**, Jewett, M. W., Hadley, T. J., and Groisman, E. A.
“Structure and dynamic properties of genetic circuits controlling antibiotic resistance in enteric bacteria”
Howard Hughes Medical Institute Scientific Meeting on Mechanisms of Intra- and Intercellular Signaling. Chevy Chase, MD
- Aug 2008: **Mitrophanov, A. Y.**, Jewett, M. W., Hadley, T. J., and Groisman, E. A.
“Regulatory architectures and dynamics of bacterial gene expression”
2nd q-bio Conference on Cellular Information Processing. Santa Fe, NM

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- Jul 2008: **Mitrophanov, A. Y.**, Jewett, M. W., Hadley, T. J., and Groisman, E. A.
“Regulatory architectures and differential control of antibiotic resistance genes in enteric bacteria”
Gordon Research Conference on Microbial Stress Response. South Hadley, MA
- Nov 2007: **Mitrophanov, A. Y.** and Borodovsky, M.
“Transcription factor binding site prediction via an optimization algorithm for multiple string matching”
6th Georgia Tech–ORNL International Conference on Bioinformatics.
Atlanta, GA
- Oct 2007: Kato,[#] A., **Mitrophanov,[#] A. Y.**, and Groisman, E. A.
[#]Equal authorship
“Dynamical properties of connector-mediated pathways in two-component signal transduction”
8th International Conference on Systems Biology. Long Beach, CA
- Jul 2007: **Mitrophanov,[#] A. Y.**, Kato,[#] A., and Groisman, E. A.
[#]Equal authorship
“A connector of two-component regulatory systems promotes signal amplification and persistence of expression”
Gordon Research Conference on Microbial Adhesion and Signal Transduction.
Newport, RI
- Jul 2007: **Mitrophanov,[#] A. Y.**, Kato,[#] A., and Groisman, E. A.
[#]Equal authorship
“Dynamical properties of connector-mediated pathways in bacterial two-component signal transduction”
Gordon Research Conference on Bioinformatics. Andover, NH