CURRICULUM VITAE

Name: Irina Artsimovitch

Address: Department of Microbiology
The Ohio State University
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Education: M.S. in Biochemistry from the Department of Bioorganic Chemistry, College of Biological Sciences, Moscow State University (1984-1990), Advisor: Eugene Lukanidin. M.S. thesis: "Protein Mts-1 from mouse carcinoma cell lines CSML-0 and CSML-100".

Ph.D. in Microbiology & Immunology, University of Tennessee-Memphis, College of Medicine and Graduate Health Sciences (1992-1996), Advisor: Martha M. Howe. Ph.D. thesis: "Activation of Middle Transcription of the Phage Mu".

Employment: October 2011 – Professor, Department of Microbiology, The Ohio State University.

October 2006–September 2011: Associate Professor, Department of Microbiology, The Ohio State University.

August 2001–September 2006: Assistant Professor, Department of Microbiology, The Ohio State University.

September 1996–July 2001: Postdoc, Department of Bacteriology, University of Wisconsin-Madison, Advisor: Robert Landick.

September 1992–August 1996: Graduate Teaching Assistant, Department of Microbiology and Immunology, University of Tennessee-Memphis.

April 1991–July 1992: Visiting Scientist, Russo-Finnish Biotechnological Laboratory, Leiras Pharmaceutical Co., Turku, Finland.

August 1990–March 1991: Senior lab assistant at Laboratory of Mediators of Immunity and Haemopoiesis, Hematology Center, Moscow, Russia.

Membership in Professional Associations:

American Society for Biochemistry and Molecular Biology
American Society for Microbiology
American Academy of Microbiology
FASEB
Sigma Xi

Publications:

(*****, corresponding author)

1. **Artsimovitch I**, Murakami K, Ishihama A & Howe MM***** (1996). Transcription activation by the bacteriophage Mu Mor protein requires the C-terminal regions of both α and σ^{70} subunits of *Escherichia coli* RNA polymerase. *J Biol Chem.* **271**, 32343-32348.
2. **Artsimovitch I**, Kahmeyer-Gabbe M & Howe MM***** (1996). Distortion in the spacer region of P_m during activation of middle transcription of phage Mu. *Proc Natl Acad Sci U S A.* **93**, 9408-9413.

3. **Artsimovitch I** & Howe MM***** (1996). Transcription activation by the bacteriophage Mu Mor protein: analysis of promoter mutations in P_m identifies a new region required for promoter function. *Nucleic Acids Res.* **24**, 450-457.

4. **Artsimovitch I** & Landick R***** (1998). Interaction of a nascent RNA structure with RNA polymerase is required for hairpin-dependent transcriptional pausing but not for transcript release. *Genes Dev.* **12**, 3110-3122.

5. Mooney RA, **Artsimovitch I** & Landick R***** (1998). Information processing by RNA polymerase: recognition of regulatory signals during RNA chain elongation. *J Bacteriol.* **180**, 3265-3275.

6. Yin H, **Artsimovitch I**, Landick R & Gelles J***** (1999). Nonequilibrium mechanism of transcription termination from observations of single RNA polymerase molecules. *Proc Natl Acad Sci U S A*. **96**, 13124-13129.

7. Pan T*****, **Artsimovitch I**, Fang XW, Landick R & Sosnick TR***** (1999). Folding of a large ribozyme during transcription and the effect of the elongation factor NusA. *Proc Natl Acad Sci U S A.* **96**, 9545-9550.

8. **Artsimovitch I**, Svetlov V, Anthony L, Burgess RR & Landick R***** (2000). RNA polymerases from *Bacillus subtilis* and *Escherichia coli* differ in recognition of regulatory signals *in vitro*. *J Bacteriol.* **182**, 6027-6035.

9. Anthony LC, **Artsimovitch I**, Svetlov V, Landick R & Burgess RR***** (2000). Rapid purification of His(6)-tagged *Bacillus subtilis* core RNA polymerase. *Protein Expr Purif.* **19**, 350-354.

10. **Artsimovitch I** & Landick R***** (2000). Pausing by bacterial RNA polymerase is mediated by mechanistically distinct classes of signals. *Proc Natl Acad Sci U S A.* **97**, 7090-7095.

11. Gruber TM, Markov D, Sharp MM, Young BA, Lu CZ, Zhong HJ, **Artsimovitch I**, Geszvain KM, Arthur TM, Burgess RR, Landick R, Severinov K & Gross CA***** (2001). Binding of the initiation factor σ^{70} to core RNA polymerase is a multistep process. *Mol Cell.* **8**, 21-31.

12. Toulokhonov I, **Artsimovitch I** & Landick R***** (2001). Allosteric control of RNA polymerase by a site that contacts nascent RNA hairpins. *Science.* **292**, 730-733.

13. Yuzenkova J, Delgado M, Nechaev S, Savalia D, Epshtein V, **Artsimovitch I**, Mooney RA, Landick R, Farias RN, Salomon R & Severinov K***** (2002). Mutations of bacterial RNA polymerase leading to resistance to microcin j25. *J Biol Chem.* **277**, 50867-50875.

14. Ederth J, **Artsimovitch I**, Isaksson LA & Landick R***** (2002). The downstream DNA jaw of bacterial RNA polymerase facilitates both transcriptional initiation and pausing. *J Biol Chem.* **277**, 37456-37463.

15. **Artsimovitch I** & Landick R***** (2002). The transcriptional regulator RfaH stimulates RNA chain synthesis after recruitment to elongation complexes by the exposed nontemplate DNA strand. *Cell.* **109**, 193-203.

16. **Artsimovitch I**, Chu C, Lynch AS & Landick R***** (2003). A new class of bacterial RNA polymerase inhibitor affects nucleotide addition. *Science.* **302**, 650-654.

17. McDaniel BA, Grundy FJ, **Artsimovitch I** & Henkin TM***** (2003). Transcription termination control of the S box system: direct measurement of S-adenosylmethionine by the leader RNA. *Proc Natl Acad Sci U S A.* **100**, 3083-3088.

18. **Artsimovitch I**, Svetlov V, Murakami KS & Landick R***** (2003). Co-overexpression of *Escherichia coli* RNA polymerase subunits allows isolation and analysis of mutant enzymes lacking lineage-specific sequence insertions. *J Biol Chem.* **278**, 12344-12355.

19. Vicari D & **Artsimovitch I*** (2004). Virulence regulators RfaH and YaeQ do not operate in the same pathway. *Mol Genet Genomics.* **272**, 489-496.

20. Vassylyeva MN, Perederina AA, Svetlov V, Yokoyama S, **Artsimovitch I** & Vassylyev DG***** (2004). Cloning, expression, purification, crystallization and initial crystallographic analysis of transcription factor DksA from *Escherichia coli*. *Acta Crystallogr D.* **60**, 1611-1613.

21. **Artsimovitch I**, Patlan V, Sekine S, Vassylyeva MN, Hosaka T, Ochi K, Yokoyama S & Vassylyev DG***** (2004). Structural basis for transcription regulation by alarmone ppGpp. *Cell.* **117**, 299-310.

22. Svetlov V, Vassylyev DG & **Artsimovitch I*** (2004). Discrimination against deoxyribonucleotide substrates by bacterial RNA polymerase. *J Biol Chem.* **279**, 38087-38090.

23. Perederina A, Svetlov V, Vassylyeva MN, Tahirov TH, Yokoyama S, **Artsimovitch I** & Vassylyev DG* (2004). Regulation through the secondary channel—structural framework for ppGpp-DksA synergism during transcription. *Cell.* **118**, 297-309.

24. Carter HD, Svetlov V & **Artsimovitch I*** (2004). Highly divergent RfaH orthologs from pathogenic proteobacteria can substitute for *Escherichia coli* RfaH both *in vivo* and *in vitro*. *J Bacteriol.* **186**, 2829-2840.

25. **Artsimovitch I*** (2005). Control of transcription termination and antitermination. In *The Bacterial Chromosome*, pp. 311-326. Edited by N. P. Higgins. Washington, D. C. American Society for Microbiology.

26. **Artsimovitch I**, Vassylyeva MN, Svetlov D, Svetlov V, Perederina A, Igarashi N, Matsugaki N, Wakatsuki S, Tahirov TH & Vassylyev DG* (2005). Allosteric modulation of the RNA polymerase catalytic reaction is an essential component of transcription control by rifamycins. *Cell.* **122**, 351-363.

27. Toulme F, Mosrin-Huaman C, **Artsimovitch I** & Rahmouni AR* (2005). Transcriptional pausing *in vivo*: a nascent RNA hairpin restricts lateral movements of RNA polymerase in both forward and reverse directions. *J Mol Biol.* **351**, 39-51.

28. Vassylyev DG, Svetlov V, Vassylyeva MN, Perederina A, Igarashi N, Matsugaki N, Wakatsuki S & **Artsimovitch I*** (2005). Structural basis for transcription inhibition by tagetitoxin. *Nat Struct Mol Biol.* **12,** 1086-1093.

29. Vassylyev DG & **Artsimovitch I*** (2005). Tracking RNA polymerase, one step at a time. *Cell.* **123**, 977-979.

30. Symersky J, Perederina A, Vassylyeva MN, Svetlov V, **Artsimovitch I** & Vassylyev DG* (2006). Regulation through the RNA polymerase secondary channel. Structural and functional variability of the coiled-coil transcription factors. *J Biol Chem.* **281**, 1309-1312.

31. **Artsimovitch I** & Vassylyev DG* (2006). Is it easy to stop RNA polymerase? *Cell Cycle.* **5**, 399-404.

32. Perederina A, Vassylyeva MN, Berezin I, Svetlov V, **Artsimovitch I** & Vassylyev DG* (2006). Cloning, expression, purification, crystallization and initial crystallographic analysis of transcription elongation factors GreB from *Escherichia coli* and Gfh1 from *Thermus thermophilus*. *Acta Crystallogr F.* **62**, 44-46.

33. Vassylyeva MN, Svetlov V, Klyuyev S, Devedjiev YD, **Artsimovitch I*** & Vassylyev DG* (2006). Crystallization and preliminary crystallographic analysis of the transcriptional regulator RfaH from *Escherichia coli* and its complex with *ops* DNA. *Acta Crystallogr F.* **62**, 1027-1030.

34. Belogurov GA, Vassylyeva MN, Svetlov V, Klyuyev S, Grishin N, Vassylyev DG & **Artsimovitch I*** (2007). Structural basis for converting a general transcription factor into a dedicated virulence regulator. *Mol Cell*. **26**, 117-129.

35. Vassylyev DG*, Vassylyeva MN, Perederina A, Tahirov TH & **Artsimovitch I** (2007). Structural basis for transcription elongation by bacterial RNA polymerase. *Nature.* **448**, 157-162.

36. Vassylyev DG*, Vassylyeva MN, Zhang J, Palangat M, **Artsimovitch I** & Landick R (2007). Structural basis for substrate loading in bacterial RNA polymerase. *Nature.* **448**, 163-168.

37. Svetlov V, Belogurov GA, Shabrova E, Vassylyev DG & **Artsimovitch I*** (2007) Allosteric control of the RNA polymerase by the elongation factor RfaH. *Nucleic Acids Res*. **35**, 5694-5705.

38. Vassylyeva MN, Svetlov V, Dearborn A, Klyuyev S, **Artsimovitch I*** & Vassylyev DG* (2007). The carboxy-terminal coiled-coil of the RNA polymerase β'-subunit is the main binding site for Gre factors. *EMBO Rep*. **8**, 1038-1043.

39. **Artsimovitch I*** & Vassylyev DG* (2007) Merging the RNA and DNA worlds. *Nat Struct Mol Biol*. **14**, 1122-1123.

40. Sevostyanova A, Svetlov V, Vassylyev DG & **Artsimovitch I*** (2008). The elongation factor RfaH and the initiation factor sigma bind to the same site on the transcription elongation complex. *Proc Natl Acad Sci U S A.* **105**, 865-870.

41. **Artsimovitch I*** (2008) Post-initiation control by the initiation factor σ. *Mol Microbiol*. **68**, 1-3.

42. Belogurov GA, Mooney RA, Svetlov V, Landick R & **Artsimovitch I*** (2008). Functional specialization of transcription elongation factors. *EMBO J.* **28**, 112-122.

43. **Artsimovitch I*** & Henkin TM* (2009). In vitro approaches to analysis of transcription termination. *Methods.* **47**, 37-43.

44. Belogurov GA, Vassylyeva MN, Sevostyanova A, Xiang A, Lira R, Webber S, Klyuyev S, **Artsimovitch I*** & Vassylyev DG***** (2009). Transcription inactivation through local refolding of the RNA polymerase structure. *Nature.* **457**, 332-335.

45. Kulaeva OI, Gaykalova DA, Pestov NA, Golovastov VV, Vassylyev DG, **Artsimovitch I** & Studitsky VM***** (2009). Mechanism of chromatin remodeling and recovery during passage of RNA polymerase II. *Nat Struct Mol Biol.* **16**, 1272-1278.

46. Miropolskaya N, **Artsimovitch I**, Klimašauskas S, Nikiforov V & Kulbachinskiy A***** (2009). Allosteric control of catalysis by the F-loop of RNA polymerase. *Proc Natl Acad Sci U S A.* **106**, 18942-18947.

47. Belogurov GA, Sevostyanova A, Svetlov V & **Artsimovitch I*** (2010). Functional regions of the N-terminal domain of the antiterminator RfaH. *Mol Microbiol*. **76**, 286-301.

48. **Artsimovitch I*** (2010). A processive riboantiterminator seeks a switch to make biofilms. *Mol Microbiol*. **76**, 535–539.

49. Pupov D, Miropolskaya N, Sevostyanova A, Bass I, **Artsimovitch I*** & Kulbachinskiy A***** (2010). Multiple roles of the RNA polymerase β' SW2 region in transcription initiation, promoter escape, and RNA elongation. *Nucleic Acids Res*. **38**, 5784-96.

50. Miropolskaya N, Nikiforov V, Klimašauskas S, **Artsimovitch I*** & Kulbachinskiy A***** (2010). Modulation of RNA polymerase activity through trigger loop folding. *Transcription*, **1**, 89-94.

51. Sevostyanova A & **Artsimovitch I*** (2010). Functional analysis of *Thermus thermophilus* transcription factor NusG. *Nucleic Acids Res*. **38**, 7432-45.

52. Blaby-Haas CE, Furman R, Rodionov DA, **Artsimovitch I*** & de Crécy-Lagard V***** (2011) Role of a Zn-independent DksA in Zn homeostasis and stringent response. *Mol Microbiol*. **79**, 700-15.

53. Santangelo TJ & **Artsimovitch I*** (2011). Termination and antitermination: RNA polymerase runs a stop sign. *Nat Rev Microbiol*. **9**, 319-29.

54. Sevostyanova A, Belogurov GA, Mooney RA, Landick R & **Artsimovitch I*** (2011). The β subunit gate loop is required for RNA polymerase modification by RfaH and NusG. *Mol Cell*. **43**, 253-62.

55. **Artsimovitch I***, Svetlov V, Nemetski SM, Epshtein V, Cardozo T & Nudler E* (2011). Tagetitoxin inhibits RNA polymerase through trapping of the trigger loop. *J Biol Chem*. **286**, 40395-400**.**

56. Furman R, Sevostyanova A & **Artsimovitch** I* (2011) Transcription initiation factor DksA has diverse effects on RNA chain elongation. *Nucleic Acids Res*. **40**, 3392-402.

57. Perdrizet GA, **Artsimovitch I**, Furman R, Sosnick TR & Pan T* (2012) Transcriptional pausing coordinates folding of the aptamer domain and the expression platform of a riboswitch. *Proc Natl Acad Sci U S A.* **109**, 3323-8.

58. Deaconescu AM, Sevostyanova A, **Artsimovitch I** & Grigorieff N* (2012) NER machinery recruitment by the transcription-repair coupling factor involves unmasking of a conserved intramolecular interface. *Proc Natl Acad Sci U S A.* **109**, 3353-8.

59. Burmann BM, Knauer SH, Sevostyanova A, Schweimer K, Mooney RA, Landick R, **Artsimovitch I*** & Rösch P* (2012) An α-helix to β-barrel domain switch transforms the transcription factor RfaH into a translation factor. *Cell*. **150**, 291-303.

60. Deaconescu AM*, **Artsimovitch I** & Grigorieff N (2012) Interplay of DNA repair with transcription: from structures to mechanisms. *Trends Biochem Sci*. **37**, 543-52.

61. Knauer SH*, **Artsimovitch I** & Rösch P* (2012) Transformer proteins. *Cell Cycle*. **11**, 4289-90.
62. Drennan AC, Kraemer M, Capp MW, Gries TJ, Ruff E, Sheppard C, Wigneshweraraj S, **Artsimovitch I** & Record MT* (2012) Key roles of the downstream mobile jaw of *Escherichia coli* RNA polymerase in transcription initiation. *Biochemistry*. **51**, 9447-59.
63. Knauer SH*, Rösch P & **Artsimovitch I*** (2012) Transformation — the next level of regulation. *RNA Biol*. **9**, 1418-23.
64. Furman R, Tsodikov OV, Wolf YI & **Artsimovitch I*** (2012) An insertion in the catalytic trigger loop gates the secondary channel of RNA polymerase. *J Mol Biol*. **425**, 82-93.
65. BiswasT, Resto-Roldán E, Sawyer SK, **Artsimovitch I** &Tsodikov OV* (2013) A novel non-radioactive primase-pyrophosphatase activity assay and its application to the discovery of inhibitors of *Mycobacterium tuberculosis* primase DnaG. *Nucleic Acids Res.* **41**, e56.
66. Nedialkov YA, Opron K, Assaf F, **Artsimovitch I**, Kireeva ML, Kashlev M, Cukier RI, Nudler E, Burton ZF* (2013) The RNA polymerase bridge helix YFI motif in catalysis, fidelity and translocation. *Biochim Biophys Acta*. **829**, 187-98.
67. Furman R, Biswas T, Danhart EM, Foster MP, Tsodikov OV & **Artsimovitch I*** (2013) DksA2, a zinc-independent structural analog of the transcription factor DksA. *FEBS Lett*. **587,** 614-9.
68. Tomar SK & **Artsimovitch I*** (2013) NusG-Spt5 proteins — universal tools for transcription modification and communication. *Chem Rev*. **113**, 8604-19.
69. Tomar SK, Knauer SH, Nandy Mazumdar N, Rösch P & **Artsimovitch I*** (2013) Interdomain contacts control folding of transcription factor RfaH. *Nucleic Acids Res.* **41**, 10077-85.
70. Miropolskaya N, Esyunina D, Klimašauskas S, Nikiforov V, **Artsimovitch I** & Kulbachinskiy A* (2014) Interplay between the trigger loop and the F loop during RNA polymerase catalysis. *Nucleic Acids Res.* **42**, 544-52
71. **Artsimovitch I** (2014) The tug of DNA repair. *Nature*. **505**, 298-9.
72. Malinen AM, NandyMazumdar M, Turtola M, Malmi H, Grocholski T, **Artsimovitch I** & Belogurov GA* (2014) CBR antimicrobials alter coupling between the bridge helix and the β subunit in RNA polymerase. *Nat Commun*, **5**, 3408.

Presentations since joining OSU:

Presentations at scientific meetings:

Molecular Genetics of Bacteria and Phage Meeting 2003, Madison, WI (poster).

FASEB Conference / Control of Transcription in Prokaryotes 2003, Saxtons River, VT (talk).

Rustbelt RNA Meeting 2003, Deer Creek, OH (3 posters).

FASEB Conference / Nucleic Acid Enzymes 2004, Saxtons River, VT (talk & 3 posters).

Molecular Genetics of Bacteria and Phage Meeting 2004, Cold Spring Harbor, NY (talk & poster).

Postinitiation Activities of RNA Polymerases 2004, Mountain Lake, VA (session chair).

FASEB Conference / Control of Transcription in Prokaryotes 2005, Saxtons River, VT (talk & poster).

Keystone Meeting / Nucleic Acid Enzymes 2006, Taos, NM (talk & 2 posters).

Postinitiation Activities of RNA Polymerases 2006, Mountain Lake, VA (session chair).

FASEB Conference / Control of Transcription in Prokaryotes 2007, Saxtons River, VT (talk & 4 posters).

FASEB Conference / Nucleic Acid Enzymes 2008, Saxtons River, VT (3 posters).

Gordon Research Conference / Antibacterial Discovery & Development 2008, Lucca, Italy (poster).

8th EMBL Transcription Meeting 2008, Heidelberg, Germany (talk).

Postinitiation Activities of RNA Polymerases 2008, Mountain Lake, VA (talk & 2 posters).

International Symposium on Antimicrobial Peptides 2009, Saint Malo, France (talk).
FASEB Conference / Control of Transcription in Prokaryotes 2009, Saxtons River, VT (talk & 4 posters).
Molecular Genetics of Bacteria and Phage Meeting 2009, Madison, WI (talk & poster).
ASM Meeting 2010, San Diego, CA (poster).
ASBMB Meeting 2010, Anaheim, CA (2 posters).
Goldschmidt Conference 2010, Knoxville, TN (talk).
Gordon Conference / Stress Response 2010, Mount Holyoke, MA (2 posters).
69th Harden Conference / RNAP 2010, Cambridge, UK (talk).
Postinitiation Activities of RNA Polymerases 2010, Mountain Lake, VA (2 talks).
Gordon Conference / Nucleic Acids 2011, Biddefold, ME (poster).
FASEB Conference / Control of Transcription in Prokaryotes 2011, Saxtons River, VT (talk & 2 posters).
Symposium on Transcriptional Dynamics, Evolution, and Systems Biology 2011, East Lansing, MI (talk).
Symposium on Lead Structures of Cell Function 2011, Bayreuth, Germany (talk).
Molecular Genetics of Bacteria and Phage Meeting 2011, Madison, WI (talk).
ICGEB Symposium on Gene Expression and RNA processing 2011, Iguazú Falls, Argentina (talk).
Symposium on Lead Structures of Cell Function 2012, Bayreuth, Germany (talk).
ASM Meeting 2013, Denver CO (talk).
FASEB Conference / Control of Transcription in Prokaryotes 2013, Saxtons River, VT (session chair).
Molecular Genetics of Bacteria and Phage Meeting 2013, Madison, WI (session chair).
Rustbelt RNA Meeting 2013, Cleveland, OH (3 posters).
XII PAMBM Congress, Puerto Varas, Chile (talk).
ASBMB Meeting 2014, San Diego, CA (talk).
EMBL Molecular Machines Meeting 2014, Heidelberg, Germany (talk).

Invited seminars:

Kenyon College, Dept. of Biology, Gambier, OH, September 2003.
Ohio State University, Dept. of Biochemistry, Columbus, OH, September 2003.
Case Western Reserve University, Dept. of Biochemistry, Cleveland, OH, October 2003.
Genomic Sciences Center, Yokohama (Japan), November 2003.
Tokyo Institute of Technology, Yokohama (Japan), November 2003.
RIKEN Institute, Harima (Japan), November 2003.
University of Alabama, Dept. of Biochemistry and Mol. Genetics, Birmingham, AL, December 2004.
St. Louis University, Dept. of Biochemistry, St. Louis, MO, January 2005.
University of Georgia, Dept. of Microbiology, Athens, GA, February 2005.
Ohio State University, Dept. of Chemistry, Columbus, OH, October 2005.
NCBI, Evolutionary Genomics Research Group, Bethesda, MD, November 2005.
University of Michigan, Dept. of Medicinal Chemistry, Ann Arbor, MI, September 2007.
Ohio State University, Dept. of Biochemistry, Columbus, OH, September 2007.

UMDNJ, Dept. of Pharmacology, Piscataway, NJ, November 2007.
Youngstown State University, Dept. of Chemistry, Youngstown, OH, April 2008.
University of Illinois, Dept. of Biochemistry, Urbana-Champaign, IL, April 2008.
Texas A&M University, Dept. of Biochemistry and Biophysics, College Station, TX, September 2008.
University of Florida, Dept. of Microbiology and Cell Science, Gainesville, FL, October 2008.
Institute of Molecular Genetics, Moscow (Russia), December 2008.
Moscow State University, Dept. of Molecular Biology, Moscow (Russia), December 2008.
University of Bern, Institute of Cell Biology, Bern (Switzerland), March 2009.
Denison University, Dept. of Chemistry and Biochemistry, Granville, OH, April 2009.
École normale supérieure de Cachan, Paris (France), June 2009.
Ohio State University, Dept. of Microbiology, Columbus, OH, February 2010.
University of Turku, Dept. of Biochemistry and Food Chemistry, Turku (Finland), September 2010.
Imperial College of London, Dept. of Microbiology, London (UK), September 2010.
Biochemical Genetics Section, NIH, Bethesda, MD, March 2011.
Cornell University, Dept. of Microbiology, Ithaca, NY, April 2011.
University of Chicago, Dept. of Biochemistry and Molecular Biology, Chicago, IL, November 2011.
Brandeis University, Dept. of Biology, Boston, MA, November 2011.
University of Cincinnati, Dept. of Chemistry, Cincinnati, OH, November 2011.
Carnegie Mellon University, Pittsburgh, PA, September 2012.
Nankai University, Tianjin, China, September 2012.
University of Pittsburgh, Pittsburgh, PA, November 2012.
Columbia University, New York, NJ, November 2012.
Ohio State University, Dept. of Biochemistry, Columbus, OH, February 2013.
Ohio State University, Center for Microbial Interface Biology, Columbus, OH, September 2013.
University of Minnesota, Dept. of Microbiology, Minneapolis, MN, September 2013.
University of Chile, Dept. of Microbiology, Santiago, Chile, November 2013.
University of Arizona, Dept. of Chemistry and Biochemistry, Tucson, AZ, April 2014.

Research Support:

Past

07/02–06/04 **American Heart Association** 0265013B "*Genomic targets of RfaH, a transcriptional activator of virulence and fertility operons"*; PI: Irina Artsimovitch.

01/03–12/08 **National Institutes of Health (NIGMS)** R01 GM067153 "*Mechanism of transcript elongation control by RfaH* "; PI: Irina Artsimovitch.

01/04 **National Institutes of Health (NIGMS)** Equipment supplement "*Mechanism of transcript elongation control by RfaH* "; Co-PIs: Irina Artsimovitch & Michael Ibba, The Ohio State University.

04/05–03/07 **National Institutes of Health (NIAID)** R21 AI064819 *"Molecular mechanism of antibiotic rifampicin action*"; PI: Irina Artsimovitch.

04/05–06/09 **National Institutes of Health (NIGMS)** R01 GM074252 "*Molecular mechanism of*

transcription elongation"; Co-PI: Irina Artsimovitch, PI: Dmitry Vassylyev, University of Alabama-Birmingham.

07/05–06/09 **National Institutes of Health (NIGMS)** R01 GM074840 "*Transcription regulation through RNAP secondary channel*"; Co-PI: Irina Artsimovitch, PI: Dmitry Vassylyev, University of Alabama-Birmingham.

02/10 -12/12 **Optimer Pharmaceuticals, Inc**. "*Functional analysis of antibiotic OPT-80*"; PI: Irina Artsimovitch.

Present

02/01–01/18 **National Institutes of Health (NIGMS)** R01 GM067153 "*Mechanism of transcript elongation control by RfaH* "; PI: Irina Artsimovitch.

Service Activities:

Research

ad-hoc reviewer for ACS Reviews, Biochimie, Biochemistry, Bioinformatics, EMBO Journal, Genes & Development, Journal of Bacteriology, Journal of Biological Chemistry, Journal of Biology, Journal of Molecular Biology, Molecular Cell, Molecular Microbiology, Methods, Nature, Nature Structural & Molecular Biology, Nucleic Acids Research, PLoS Biology, PNAS, Proteins, Structure, RNA, Transcription, Trends in Microbiology.

ad-hoc reviewer for NIH (Prokaryotic Cellular and Molecular Biology and Drug Discovery and Antimicrobial Resistance Study Sections), NSF (Microbial Systems Biology), U.S. Department of Energy, U.S. Department of Defense, BBRSC, ERC, and Wellcome Trust.

NIH "Drug Discovery and Antimicrobial Resistance" Study Section Member (2009–).

NSF "Prokaryotic Molecular and Cellular Biology" Panel Member (2005–2009).

Administrative Service

University:

The University Senate, **Member** (2014–)

The Arts and Sciences Graduate Fellowship Committee, **Member** (2014)

The Arts and Sciences Promotion and Tenure Committee, **Member** (2013–)

The Arts and Sciences Health & Well-Being Implementation Committee, **Member** (2012–2013)

CMB Predoctoral Training Program Steering Committee, **Member** (2011–)

OSU Center for Microbial Interface Biology (CMIB), **Member** (2010–)

The Arts and Sciences Faculty Advisory Council, **Member** (2010–2011).This body acts on behalf of all faculty in a newly formed College of Arts and Sciences in bringing matters of collective interest to the attention of the Executive Dean.

Center for RNA Biology Fellowship Committee, **Member** (2009–). Review of applications.

The Arts and Sciences Senate Steering Committee, **Member** (2009–2010). This committee identifies issues for discussion, prepares an agenda for meetings of the ASC Senate, and reviews the Senate committee structure.

The Mathematical Biology Institute Advisory Board, **Member** (2006–). Review of a renewal NSF application, participation in the on-site NSF visit, organization of future MBI symposia.

The Federation of Arts and Sciences Faculty Senate, **Member** (2002–2005; 2007–2010). The Senate formulates policy of the faculty of the Colleges across the Arts and Sciences. During this time, the main issues were the organization of a unified College of the Arts and Sciences, GEC restructuring, and quarter-to-semester conversion.

Department:

Vice-Chair for Research and Graduate Education (2013–)

Promotion and Tenure Committee, **Chair** (2013–)

Junior Faculty Mentor for Natacha Ruiz (2010–) and Tom Santangelo (2010–2013)

Website Administrator (2009–2012). Development and oversight of a new Microbiology webpage as a part of the College-wide website reorganization.

Graduate Admissions Committee, **Chair** (2009–2011). Recruitment, admissions, and advising of the first year graduate students in the Microbiology program; interviews with international and domestic applicants.

Graduate Curriculum Committee, **Member** (2009–2012). Oversight of curriculum development and student progress.

Graduate Studies Committee, **Chair** (2008–2009). Recruitment, admissions, interviews with applicants into the Microbiology program. Advising of graduate students and oversight of their progress.

Microbiology Unit Review Committee, **Member** (2006–2007). Preparation of a document for the external review of the Microbiology department.

Website Co-Administrator (with Michael Ibba; 2004–2008). Re-structuring of the departmental web page and regular updates.

Graduate Studies Committee, **Member** (2002–2007). Recruitment and admissions of graduate students in the Microbiology program, curriculum development.

Faculty Search Committee, **Member** (2002–2005, 2010, 2012, 2013). Screening of candidates for faculty positions and participation in interview process.