

CURRICULUM VITAE

NAME: Vladimir A. TYURIN
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EDUCATION AND TRAINING

Undergraduate

1968-1973	Far East State University, Vladivostok, Russia	M.S., 1973	Biophysics
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Graduate

1976-1980	Moscow State University, Moscow, Russia	Ph.D., 1980	Biophysics
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Post-Graduate

1997-2000	Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, U.S.A.	Fellowship from the NIH, NCI "Oncology Research Faculty Development Program", The program prepares participants for careers as independent investigators and for leadership positions in cancer research.	Prof. V.E. Kagan Prof. J. Lazo
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1999-2000	Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, U.S.A.	Fellowship from the Magee-Womens Research Institute, University of Pittsburgh.	Prof. V.E. Kagan
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APPOINTMENTS AND POSITIONS

Academic

1973-1976	Research Assistant (Biochemistry, Biophysics)	Laboratory Biochemistry of Vision Research, Institute of Marine Biology Far East Scientific Center of Russian Academy of Science, Vladivostok, Russia.
1976-1980	Research scientist in Biochemistry, Biophysics	Laboratory Biochemistry of Vision Research, Institute of Marine Biology Far East Scientific Center of Russian Academy of Science, Vladivostok, Russia.
1981-1984	Research scientist in Biochemistry, Biophysics	Laboratory of Neurochemistry, Institute of Evolutionary Physiology and Biochemistry, Russian Academy of Science, St.-Petersburg, Russia.
1984-1995	Research Associate	Laboratory of Comparative Biochemistry of Nervous System, Institute of Evolutionary Physiology and Biochemistry, Russian Academy of Science, St.-Petersburg, Russia.
1995-2004	Senior Researcher	Laboratory of Comparative Biochemistry of Nervous System, Institute of Evolutionary Physiology and Biochemistry, Russian Academy of Science, St.-Petersburg, Russia.
2004-2005	Research Associate	Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, U.S.A.

2005-present	Research Assistant Professor	Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, U.S.A.
Non- Academic		
1984-1985	Visiting Scientist	Institute of Physiology, Sofia, Bulgaria.
1987-1989	Visiting Scientist	Institute of Physiology, Sofia, Bulgaria.
1991-1992	Visiting Scientist	Department of Biochemistry, Pharmaceutical Co. Sigma Tau, (Pomezia), Rome, Italy.
1993-1994	Visiting Scientist	Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, U.S.A.
1996	Visiting Scientist	Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, U.S.A.
1997-2000	Visiting Scientist	Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, U.S.A.
2002-2004	Visiting Scientist	Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, U.S.A.

HONORS

1993	Travel grant from the UNESCO Global Network for Molecular and Cell Biology.
1995-1997	PI, Grant 95-04-12050 from the Russian Foundation of Fundamental Investigation.

1994-1996	Co-PI, Project J22100 from the International Science Foundation (Long term research grants program), Moscow.
1999-2000	Fellowship from the Magee-Womens Research Institute, University of Pittsburgh.

PROFESSIONAL ACTIVITIES

Research and Training

1. Teaching N/A

a. Courses Taught

Years Taught	Course Number: Title	Hours of Lecture, credits Average Enrollment	Role in course Primary/Coordinator
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b. Other Teaching (lectures, tutorials and continuing education courses)

Date(s)	Type of Teaching	Title
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c. Major Advisor for Graduate Student Essays, Theses, and Dissertations

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
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d. Service on Masters or Doctoral Committees

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
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e. Service on Comprehensive or Qualifying Examination Committees

Dates Served	Student Population	Type of Exam (Qualifying/Comprehensive)
	The student population, i.e., 1 Ph.D. Biostatistics student, 7 Masters-level M.M.P.H. students, etc.	

f. Supervision of Post-Doctoral Students, Residents, and Fellows

Dates Supervised	Name of Student	Position of Student
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g. Mentoring of Graduate Students in Field Placements

Dates	Name of Student	Degree/Program Description	Field Site
			Agency/Organization Location

h. Other Teaching and Training

Dates	Teaching Activity	Program/Description
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2. Research and Training

a. Grants and Contracts Received

Principal Investigator

2012 - 2013	XJB complexes with PEGylated carbon nanotubes (CNT) as mitigators of irradiation injury. Pilot Project; U19 AIO68021	NIAID CMCR		% Effort
2010-2012	Regulation of lyso-phospholipids for radiomitigation. Peroxidized and phospholipase A–modified phospholipids in radiation-induced apoptosis as possible targets for radiomitigation. Pilot project; U19 AI068021	NIAID CMCR	82,500	% Effort

Co-Principal Investigator

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
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Co-Investigator on Grants

2010-2015	Carbon Nanotubes Biodegradation by Neutrophil Myeloperoxidase R01 OH008282-09	CDC	\$206,042	25%
2013-2018	Cardiolipin as a Novel Mediator of Acute Lung Injury P01 HL114453-02	NIH	\$27,677	25%
2012-2017	Lipids and Myeloid Cell Function in Cancer 10-162826-99-01-G	H. Lee Moffitt/NIH	\$85,538	25%
2012-2017	Mapping Lipid Oxidation in Traumatic Brain Injury by mass Spectrometric Imaging 1R01 NS76511-01A1	NIH/NINDS	\$106,776	25%
2013-2017	OXIDATIVE LIPIDOMICS CORE (Core B) 1 PO1 HL114453-01A1	NHLBI		
2012-2017	Molecular and Cellular Control of Placental Metabolism - Project 3 P01 HD069316-01		\$12,740	
2012-2016	Oxygenated Species of Cardiolipins as Biomarkers of Mitochondrial Dysfunction R01 ES020693-02	NIH/NIAID	\$177,111	50%
2008-2013	Mechanisms of Preeclampsia Impact of Obesity P01 HD030367-17			

2011-2013	Phosphatidylserine and its peroxidized and Lp-PLA ₂ -hydrolyzed species on cell surface: Role in clearance of apoptotic cells by macrophages. 10019406	GSK	112,382	25%
2009-2011	ARRA Funded - Irradiation Damage and Protection of Pulmonary Endothelium Oxidative Lipidomics; HL094488	NIH/NHLBI	250,00	35%
2008-2013	Oxidative Lipidomics of Pulmonary Apoptosis in Hyperoxia; R01 HL070755-05	NIH/NHLBI	222,440	40%

Other Role on Grants

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
06/01/10-05/31/11	R01 HL070755-07 Oxidative Lipidomics of Pulmonary Endothelial Apoptosis in Hyperoxia	NIH/NHBI	222,440	25%
09/01/09-08/31/10	R01 HL094488-02 ARRA Funded - Irradiation Damage and Protection of Pulmonary Endothelium Oxidative Lipidomics	NIH/NHBI	250,000	50%
09/01/10-05/31/11	R01 CA090787-04 Mechanisms and Prevention of Etoposide-Induced Leukemia	OSU/NIH/NCI	37,783	25%
2010-2011	Regulation of lyso-phospholipids for radiomitigation. Peroxidized and phospholipase A–modified phospholipids in radiation-induced apoptosis as possible targets for radiomitigation	NIAID CMCR	49,500	
9/30/2003-5/31/2008	1 P01 HL070807-03 Mechanisms of Cytoprotection in acute lung injury.	NIH	78,327	20%
6/1/2005-5/31/2009	SAP4100027294 Center for Excellence in Detection, Diagnosis and Intervention in Dementia	Dept of Health	81,129	35%
2/13/2006-2/12/2008	W81XWH-06-1-0247 Novel Strategies in Experimental Traumatic Brain Injury	US Army	30,000	15%
6/14/2002-1/31/2008	5 P01 HD030367-13 Preeclampsia Mechanisms and Post Pregnancy Implications (NCTE until 1/31/08)	NIH/Magee	17,326	15%

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
06/01/10-05/31/11	R01 HL070755-07 Oxidative Lipidomics of Pulmonary Endothelial Apoptosis in Hyperoxia	NIH/NHBI	222,440	25%
09/01/09-08/31/10	R01 HL094488-02 ARRA Funded - Irradiation Damage and Protection of Pulmonary Endothelium Oxidative Lipidomics	NIH/NHBI	250,000	50%
09/01/10-05/31/11	R01 CA090787-04 Mechanisms and Prevention of Etoposide-Induced Leukemia	OSU/NIH/NCI	37,783	25%
2010-2011	Regulation of lyso-phospholipids for radiomitigation. Peroxidized and phospholipase A–modified phospholipids in radiation-induced apoptosis as possible targets for radiomitigation	NIAID CMCR	49,500	
3/1/1997-6/30/2011	P50 NS030318-14 University of Pittsburgh Brain Trauma Research Center-Core A (replaces 108446)	NIH	13,146	15%
09/15/11	Novel Mitochondrial Targeted drugs for Treatment of the Irradiation-Induced Hematopoietic Syndrome 0100200800062C	BARDA		81%

08/31/10	Role of Cardiolipin Oxidation after Traumatic Brain Injury in Immature Rat R21 HD057587-01	NIH		19%
06/01/10- 05/31/12	Oxidative Lipidomics of Pulmonary Endothelial Apoptosis in Hyperoxia	NIH/NHLBI	222,440	25%
09/01/09- 08/31/10	ARRA Funded - Irradiation Damage and Protection of Pulmonary Endothelium Oxidative Lipidomics	NIH/NHLBI	250,000	30%
07/01/08- 06/30/10	Lung Oxidative Stress Inflammation by Carbon Nanotubes	CDC/NIOSH	249,514	35%
07/17/09- 06/30/10	Divergent Pathways of Cell Death after Brain Injury	NIH/NINDS	5,160	10%

PENDING

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
2015-2020	Mechanism-Directed Sequential Delivery of Radiation Mitigators, Project 2 Targeting of New Cardiolipin-Derived Lipid Mediators Pathways for RadiomitigationU19 AI068021-11	NIH	\$250,000	40%

b. Invited Lectureships and Major Seminars Related to Your Research

Date	Title of Presentation	Venue
March, 2015	Aberrant Lipid Metabolism in Rotenone-Induced Mitochondrial Dysfunction.	54th Annual Meeting for Society of Toxicology, San Diego, California
February, 2015	LC-MS Detection of Hydroperoxy-Phospholipids and Esterified Hepoxilins	International Workshop Munich/Padova/Pittsburgh/Warwick NewPort Beach Hotel, Sunny Isles, Florida.
March, 2015	Analysis of Cardiolipins in Substantia Nigra and Plasma of Rotenone-Treated Rats: Implication for Mitochondrial Dysfunction in Parkinson's Disease.	54th Annual Meeting for Society of Toxicology, San Diego, California
January, 2015	Diversity of triacylglycerols molecular species in lipid droplets: A novel pathway for the generation of several classes of lipid signaling molecules in mitochondria: Role of CGI-58.	CFRAH Saturday Seminar Series, University of Pittsburgh, Pittsburgh, PA
May, 2014	Diversity of triacylglycerols molecular species in lipid droplets: A novel pathway for the generation of several classes of lipid signaling molecules.	CFRAH Saturday Seminar Series, University of Pittsburgh, Pittsburgh, PA
March, 2014	Oxidized Cardiolipins As a Biomarker of Mitochondrial Dysfunction Triggered by Pesticide, Rotenone	53rd Annual Meeting for Society of Toxicology, Phoenix, Arizona.

March, 2013	Lipid Droplets with Oxygenated Fatty Acids and Triglycerides in Dendritic Cells: Possible Role in Antigen Presentation in Cancer	52 nd Annual Meeting for Society of Toxicology, San Antonio, TX 2013.
March, 2012	Monolyso-cardiolipin – biomarker of mitochondrial dysfunction induced by total body irradiation. LC-ESI-MS study. Metabolites of	51 st Annual Meeting for Society of Toxicology, San Francisco, CA.
February, 2012	Cardiolipin degradation as biomarkers of mitochondrial dysfunction after total body gamma-irradiation.	Center for Medical Countermeasures Against Radiation, University of Pittsburgh, Pittsburgh, PA
March, 2011	LC-ESI/MS reveals unusual oxygenated lysophosphatidylserines produced after oxidation and hydrolysis by plasma lipoprotein-associated phospholipase A2 of sn-1, sn-2-2-dilinoleoyl-PS.	50 th Annual Meeting for Society of Toxicology; Washington DC.
March, 2010	Phospholipid oxidative metabolism during macrophage response to environmental agents.	49 th Annual Meeting for Society of Toxicology; Salt Lake City, UT.
March, 2009	Cardiolipin oxidation, hydrolysis and accumulation of monolysocardiolipins and oxidized free fatty acids during apoptosis: Role of cytochrome <i>c</i> .	48 th Annual Meeting for Society of Toxicology, Baltimore.

March, 2008	Phospholipid peroxidation biomarkers of Alzheimer's disease in the brain: selective oxidation of phosphatidylserine.	47 th Annual Meeting, Society of Toxicology, Seattle, WA.
March, 2007	Mass spectrometric analysis of phospholipid molecular species and their hydroperoxides in apoptotic neurons and injured rat brain.	46 th Annual Meeting, Society of Toxicology, Charlotte, NC,

c. Other Research and Training Activities

Date	Position	Description of Activity
2007	Reviewer, of Free Radical Biology & Medicine	manuscript
2008-2010	Reviewer, Antioxidants & Redox Signaling	manuscript
2009	Reviewer, Journal of Pharmacy & Pharmacology	manuscript
2013-Present	Reviewer, Rapid Communications in Mass Spectrometry	manuscript
2013-Present	Reviewer, Journal of Chromatography B	manuscript
2013-Present	Reviewer, Journal of Chromatography A	manuscript
2006-Present	Reviewer, Barth Syndrome Foundation	Grant

PUBLICATIONS

1. Refereed Articles

1. Tyurina YY, Polimova AM, Maciel E, **Tyurin VA**, Kapralova VI, Winnica DE, Vikulina AS, Domingues MR, McCoy J, Sanders LH, Bayir H, Greenamyre JT, Kagan VE. [LC/MS analysis of cardiolipins in substantia nigra and plasma of rotenone-treated rats: Implication for mitochondrial dysfunction in Parkinson's disease.](#) *Free Radic Res.* 2015, 49(5):681-91. PMID: 25740198
2. Kagan VE, Tyurina YY, **Tyurin VA**, Mohammadyani D, Angeli JP, Baranov SV, Klein-Seetharaman J, Friedlander RM, Mallampalli RK, Conrad M, Bayir H. [Cardiolipin signaling mechanisms: collapse of asymmetry and oxidation.](#) *Antioxid. Redox Signal.* 2015, 22(18):1667-80. PMID: 25566681
3. Ji J, Baart S, Vikulina AS, Clark RS, Anthonymuthu TS, **Tyurin VA**, Du L, St Croix CM, Tyurina YY, Lewis J, Skoda EM, Kline AE, Kochanek PM, Wipf P, Kagan VE, Bayir H. [Deciphering of mitochondrial cardiolipin oxidative signaling in cerebral ischemia-reperfusion.](#) *J Cereb Blood Flow Metab.* 2015 Feb;35(2):319-28. PMID: 25407268
4. Friedmann Angeli JP, Schneider M, Proneth B, Tyurina YY, **Tyurin VA**, Hammond VJ, Herbach N, Aichler M, Walch A, Eggenhofer E, Basavarajappa D, Rådmark O, Kobayashi S, Seibt T, Beck H, Neff F, Esposito I, Wanke R, Förster H, Yefremova O, Heinrichmeyer M, Bornkamm GW, Geissler EK, Thomas SB, Stockwell BR, O'Donnell VB, Kagan VE, Schick JA, Conrad M. [Inactivation of the ferroptosis regulator Gpx4 triggers acute renal failure in mice.](#) *Nat Cell Biol.* 2014 Dec;16 (12):1180-91. 17. PMID: 25402683
5. Mohammadyani D, **Tyurin VA**, O'Brien M, Sadovsky Y, Gabrilovich DI, Klein-Seetharaman J, Kagan VE. [Molecular speciation and dynamics of oxidized triacylglycerols in lipid droplets: Mass spectrometry and coarse-grained simulations.](#) *Free Radic. Biol. Med.* 2014 Nov; 76: 53-60. PMID: 25110833
6. Tyurina YY, Poloyac SM, **Tyurin VA**, Kapralov AA, Jiang J, Anthonymuthu TS, Kapralova VI, Vikulina AS, Jung MY, Epperly MW, Mohammadyani D, Klein-Seetharaman J, Jackson TC, Kochanek PM, Pitt BR, Greenberger JS, Vladimirov YA, Bayir H, Kagan VE. [A mitochondrial pathway for biosynthesis of lipid mediators.](#) *Nature Chemistry.* 2014 Jun; 6 (6):542-52. PMID: 24848241.
7. **Tyurin VA**, Balasubramanian K, Winnica D, Tyurina YY, Vikulina AS, He RR, Kapralov AA, Macphee CH, Kagan VE. Oxidatively modified phosphatidylserines on the surface of apoptotic cells are essential phagocytic 'eat-me' signals: cleavage and inhibition of phagocytosis by Lp-PLA2. *Cell Death and Differentiation.* 2014 May; 21 (5):825-35. PMCID: PMC3978307. PMID: 24464221.
8. Fazzi F, Njah J, Di Giuseppe M, Winnica DE, Go K, Sala E, St Croix CM, Watkins SC, **Tyurin VA**, Phinney DG, Fattman CL, Leikauf GD, Kagan VE, Ortiz LA. TNFR1/phox interaction and TNFR1 mitochondrial translocation Thwart silica-induced pulmonary fibrosis. *Journal of Immunology* (Baltimore, Md.: 1950). 2014 Apr 15; 192 (8):3837-46. PMCID: PMC3977215. PMID: 24623132.
9. Tyurina YY, Domingues RM, **Tyurin VA**, Maciel E, Domingues P, Amoscato AA, Bayir H, Kagan VE. Characterization of cardiolipins and their oxidation products by LC-MS analysis. *Chemistry and Physics of Lipids.* 2014 Apr; 179:3-10. PMCID: PMC4025908. PMID: 24333544.

10. Ramakrishnan R, **Tyurin VA**, Veglia F, Condamine T, Amoscato A, Mohammadyani D, Johnson JJ, Zhang LM, Klein-Seetharaman J, Celis E, Kagan VE, Gabrilovich DI. Oxidized lipids block antigen cross-presentation by dendritic cells in cancer. *Journal of Immunology* (Baltimore, Md.: 1950). 2014 Mar 15; 192(6):2920-31. PMID: 24554775. PMCID: PMC3998104.
11. Fabisiak JP, Tyurina YY, **Tyurin VA**, Kagan VE. Quantification of selective phosphatidylserine oxidation during apoptosis. *Methods in Molecular Biology* (Clifton, N.J.). 2014; 1105:603-11. PMID: 24623255.
12. Chu CT, Ji J, Dagda RK, Jiang JF, Tyurina YY, Kapralov AA, **Tyurin VA**, Yanamala N, Shrivastava IH, Mohammadyani D, Qiang Wang KZ, Zhu J, Klein-Seetharaman J, Balasubramanian K, Amoscato AA, Borisenko G, Huang Z, Gusdon AM, Cheikhi A, Steer EK, Wang R, Baty C, Watkins S, Bahar I, Bayir H, Kagan VE. Cardiolipin externalization to the outer mitochondrial membrane acts as an elimination signal for mitophagy in neuronal cells. *Nature Cell Biology*. 2013 Oct; 15(10):1197-205. PMID: 24036476. PMCID: PMC3806088.
13. Tyurina YY, Winnica DE, Kapralova VI, Kapralov AA, **Tyurin VA**, Kagan VE. LC/MS characterization of rotenone induced cardiolipin oxidation in human lymphocytes: Implications for mitochondrial dysfunction associated with Parkinson's disease. *Mol Nutr Food Res*. 2013 Aug; 57(8):1410-22. PMID: 23650208. PMCID: PMC3810210.
14. **Tyurin VA**, Yanamala N, Tyurina YY, Klein-Seetharaman J, Macphee CH, Kagan VE. Specificity of lipoprotein-associated phospholipase A(2) toward oxidized phosphatidylserines: liquid chromatography-electrospray ionization mass spectrometry characterization of products and computer modeling of interactions. *Biochemistry*. 2012 Dec 4; 51(48):9736-50. doi: 10.1021/bi301024e. Epub 2012 Nov 19. PMID: 23148485.
15. Ji J, Kline AE, Amoscato AA, Samhan-Arias AK, Sparvero LJ, **Tyurin VA**, Tyurina YY, Fink B, Manole MD, Puccio AM, Okonkwo DO, Cheng JP, Alexander H, Clark RS, Kochanek PM, Wipf P, Kagan VE, Bayir H. Lipidomics identifies cardiolipin oxidation as a mitochondrial target for redox therapy of brain injury. *Nat Neurosci*. 2012, 15(10), 1407-13. PMID: 22922784
16. Samhan-Arias AK, Ji J, Demidova OM, Sparvero LJ, Feng W, **Tyurin VA**, Tyurina YY, Epperly MW, Shvedova AA, Greenberger JS, Bayir H, Kagan VE, Amoscato AA. Oxidized phospholipids as biomarkers of tissue and cell damage with a focus on cardiolipin. *Biochim Biophys Acta*. 2012 Mar 23. [Epub ahead of print], PMID: 22464971
17. Tyurina YY, Tungekar MA, Jung MY, **Tyurin VA**, Greenberger JS, Stoyanovsky DA, Kagan VE. Mitochondria targeting of non-peroxidizable triphenylphosphonium conjugated oleic acid protects mouse embryonic cells against apoptosis: role of cardiolipin remodeling. *FEBS Lett*. 2012, 586(3), 235-41. PMID: 2273856. PMCID: PMC3273856
18. **Tyurin VA**, Cao W, Tyurina YY, Gabrilovich DI, Kagan VE. Mass-spectrometric characterization of peroxidized and hydrolyzed lipids in plasma and dendritic cells of tumor-bearing animals. *Biochem Biophys Res Commun*. 2011; 413(1):149-53. PMID: 21356782. PMCID: PMC3356782

19. Atkinson J, Kapralov AA, Yanamala N, Tyurina YY, Amoscato AA, Pearce L, Peterson J, Huang Z, Jiang J, Samhan-Arias AK, Maeda A, Feng W, Wasserloos K, Belikova NA, **Tyurin VA**, Wang H, Fletcher J, Wang Y, Vlasova II, Klein-Seetharaman J, Stoyanovsky DA, Bayır H, Pitt BR, Epperly MW, Greenberger JS, Kagan VE. A mitochondria-targeted inhibitor of cytochrome c peroxidase mitigates radiation-induced death. *Nat Commun.* 2011, 2:497. PMID: 21988913
20. Tyurina YY, Kisin ER, Murray A, **Tyurin VA**, Kapralova VI, Sparvero LJ, Amoscato AA, Samhan-Arias AK, Swedin L, Lahesmaa R, Fadeel B, Shvedova AA, Kagan VE. Global phospholipidomics analysis reveals selective pulmonary peroxidation profiles upon inhalation of single-walled carbon nanotubes. *ACS Nano.* 2011;5(9):7342-53. PMID:PMC3321726
21. Tyurina Y.Y., **Tyurin V.A.**, Kapralova V.I., Wasserloos K., Mosher M., Epperly M.W., Greenberger J.S., Pitt B.R., Kagan V.E. Oxidative lipidomics of γ -radiation-induced lung injury: mass spectrometric characterization of cardiolipin and phosphatidylserine peroxidation. *Radiat Res.* 2011, 175(5), 610-21.
22. Herber D.L., Cao W., Nefedova Y., Novitskiy S.V., Nagaraj S., **Tyurin V.A.**, Corzo A., Cho H.I., Celis E., Lennox B., Knight S.C., Padhya T., McCaffrey T.V., McCaffrey J.C., Antonia S., Fishman M., Ferris R.L., Kagan V.E., Gabrilovich D.I. Lipid accumulation and dendritic cell dysfunction in cancer. *Nature. Med.*, 2010, 16(8), 880-6.
23. **Tyurin V.A.**, Tyurina Y.Y., Ritov V.B., Lysytsya A., Amoscato A.A., Kochanek P.M., Hamilton R., DeKosky S.T., Greenberger J.S., Bayer H., Kagan V.E. Oxidative lipidomics of apoptosis: Quantitative assessment of phospholipid hydroperoxides in cells and tissues. *Methods in Molecular Biology*, 2010, 610, 353-374.
24. Tyurina Y.Y., **Tyurin V.A.**, Kaynar A.M., Kapralova V.I., Wasserloos K.J., Li J., Mosher M., Wright L., Wipf P., Watkins S.K., Pitt B.R., Kagan V.E. Oxidative lipidomics of hyperoxic acute lung injury: Mass spectrometric characterization of cardiolipin and phosphatidylserine peroxidation. *Am. J. Physiol. Lung Cell Mol. Physiol.* 2010, 299(1), L73-85.
25. Li W., Wu S., Ahmad M., Jiang J., Liu H., Nagayama T., Rose M.E., **Tyurin V.A.**, Tyurina Y.Y., Borisenko G.G., Belikova N., Chen J., Kagan V.E., Graham S.H. The cyclooxygenase site, but not the peroxidase site of cyclooxygenase-2 is required for neurotoxicity in hypoxic and ischemic injury. *J. Neurochem.*, 2010, 113(4), 965-977.
26. Tyurina Y.Y., **Tyurin V.A.**, Kapralova V.I., Amoscato A.A., Epperly M.W., Greenberger J.S., Kagan V.E. Mass-spectrometric characterization of phospholipids and their hydroperoxide derivatives in vivo: effects of total body irradiation. *Methods Mol. Biol.* 2009, 580, 153-183.
27. Belikova N.A., Tyurina Y.Y., Borisenko G., **Tyurin V.A.**, Samhan Arias A.K., Yanamala N., Furtmüller P.G., Klein-Seetharaman J., Obinger C., Kagan V.E. Heterolytic reduction of fatty acid hydroperoxides by cytochrome c/cardiolipin complexes: antioxidant function in mitochondria. *J. Am. Chem. Soc.* 2009, 131(32), 11288-11289.
28. Rajagopalan M.S., Gupta K., Epperly M.W., Franicola D., Zhang X., Wang H., Zhao H., **Tyurin V.A.**, Pierce J.G., Kagan V.E., Wipf P., Kanai A.J., Greenberger

- J.S. The mitochondria-targeted nitroxide JP4-039 augments potentially lethal irradiation damage repair. *In Vivo*, 2009, 23(5), 717-726.
29. Kapralov A., Vlasova I.I., Feng W., Maeda A., Walson K., **Tyurin V.A.**, Huang Z., Aneja R.K., Carcillo J., Bayir H., Kagan V.E. Peroxidase activity of hemoglobin-haptoglobin complexes: covalent aggregation and oxidative stress in plasma and macrophages. *J. Biol. Chem.*, 2009, 284(44), 30395-30407.
 30. **Tyurin V.A.**, Tyurina Y.Y., Jung M.Y., Tungekar M.A., Wasserloos K.J., Bayir H., Greenberger J.S., Kochanek P.M., Shvedova A.A., Pitt B., Kagan V.E. Mass-spectrometric analysis of hydroperoxy- and hydroxy-derivatives of cardiolipin and phosphatidylserine in cells and tissues induced by pro-apoptotic and pro-inflammatory stimuli. *J Chromatogr. B Analyt. Technol. Biomed. Life Sci.*, 2009, 877(26), 2863-2872.
 31. Kagan V.E., Bayir H.A., Belikova N.A., Kapralov O., Tyurina Y.Y., **Tyurin V.A.**, Jiang J., Stoyanovsky D.A., Wipf P., Kochanek P.M., Greenberger J.S., Pitt B., Shvedova A.A., Borisenko G. Cytochrome c/cardiolipin relations in mitochondria: a kiss of death. *Free Radic. Biol. Med.*, 2009, 46(11), 1439-1453.
 32. Bayir H., Kapralov A.A., Jiang J., Huang Z., Tyurina Y.Y., **Tyurin V.A.**, Zhao Q., Belikova N.A., Vlasova I.I., Maeda A., Zhu J., Na H.M., Mastroberardino P.G., Sparvero L.J., Amoscato A.A., Chu C.T., Greenamyre J.T., Kagan V.E. Peroxidase mechanism of lipid dependent cross-linking of synuclein with cytochrome c: protection against apoptosis versus delayed oxidative stress in Parkinson's disease. *J. Biol. Chem.*, 2009, 284(23), 15951-15969.
 33. Maki R.A., **Tyurin V.A.**, Lyon R.C., Hamilton R.L., DeKosky S.T., Kagan V.E., Reynolds W.F. Aberrant expression of myeloperoxidase in astrocytes promotes phospholipid oxidation and memory deficits in a mouse model of Alzheimer disease. *J. Biol. Chem.*, 2009, 284(5), 3158-3169.
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2. Books and Book Chapters

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7. Presentations

1. **Tyurin VA**, Polimova A, Sanders L, Greenamyre T, Tyurina Y, Kagan VE. [Aberrant Lipid Metabolism in Rotenone-Induced Mitochondrial Dysfunction](#). 54th Annual Meeting for Society of Toxicology; 2014 Mar 22-26; San Diego, California.
2. Tyurina Y, Polimova A, Maciel E, **Tyurin VA**, Kapralova V, Winnica D, Vikulina A, Domingues R, Sanders L, Bayir H, Greenamyre T, Kagan VE [Analysis of Cardiolipins in Substantia Nigra and Plasma of Rotenone-Treated Rats: Implication for Mitochondrial Dysfunction in Parkinson's Disease](#). 54th Annual Meeting for Society of Toxicology; 2014 Mar 22-26; San Diego, California.
3. Tyurina Y, Vikulina A, Kapralova VI, Winnica D, Sanders L, Greenamyre J, **Tyurin VA**, Kagan VE. Oxidized Cardiolipins As a Biomarker of Mitochondrial Dysfunction Triggered by Pesticide, Rotenone. Poster presented at: 53rd Annual Meeting for Society of Toxicology; 2014 Mar 23-27; Phoenix, Arizona.

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 17. **Tyurin VA**, Tyurina YY, Macphee CH, Kagan VE. LC-ESI/MS reveals unusual oxygenated lysophosphatidylserines produced after oxidation and hydrolysis by plasma lipoprotein-associated phospholipase A2 and sn-1, sn-2-dilinoleoyl-PS. 50th Annual Meeting for Society of Toxicology; The Toxicologist: Suppl. 2, V.120, Abstract No. 1669, p.359, March 6-10, 2011, Washington DC.
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8. Non-Print Media

1. (As applicable) Authors (same order as publication). Title of Article. *Title of Media* [Indication of Media]. Publishing Company. Year and Date. Volume (Issue): pages or path.

9. Other Publications

1. Authors (same order as publication). Title of Article. *Journal Title*. Year and Date. Volume (Issue): pages.

SERVICE

1. Service to School and University

Years	Committee	Position
5/2014	The 2014 Dean's Day student research competition	Judge

2. Service to Field of Scholarship

a. Editorial Boards, Editorships

Date	Position	Organization
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b. Manuscript and Other Document/Publication Review

Dates	Journal Title
2007	Free Radical Biology & Medicine
2008	Antioxidants & Redox Signaling
2009	Antioxidants & Redox Signaling Journal of Pharmacy & Pharmacology
2010	Antioxidants & Redox Signaling
2013	Rapid Communications in Mass Spectrometry Journal of Chromatography A Journal of Chromatography B

Dates	Journal Title
2014	Rapid Communications in Mass Spectrometry Journal of Chromatography A Journal of Chromatography B Archives of Biochemistry and Biophysics
2015	Rapid Communications in Mass Spectrometry Journal of Chromatography A Journal of Chromatography B Archives of Biochemistry and Biophysics

c. Study Sections, Review Panels, and Advisory Boards

Date	Position	Organization and Nature of Activity
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d. Leadership in Scholarly and Professional Organizations and Honorary Societies

Date	Position	Organization
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3. Service for Practice and Policy-Making, including Consultantships

a. Governmental Organizations

Date	Position	Type of Service and/or Agency
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b. Non-Governmental and Community-Based Organizations

Date	Position	Type of Service and/or Organization
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4. Non-Professional Service N/A

Year(s)

Position and Organization

Type of Service

5. Clinical and Related Activities (OPTIONAL - if applicable) N/A

A. Outpatient: Patient Care

<u>LOCATION/SERVICE</u>	<u>DESCRIBE ACTIVITY</u> (e.g. patient care, call, surgery, precepting, etc.)	<u>TIME DEVOTED TO ACTIVITY</u> (e.g. number of half days/week, number of days/year, etc.)
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Supporting descriptive information (if applicable)

B. Inpatient: Patient Care N/A

<u>LOCATION/SERVICE</u>	<u>DESCRIBE ACTIVITY</u> (e.g. patient care, precepting, call, surgery, etc.)	<u>TIME DEVOTED TO ACTIVITY</u> (e.g. number of half days/week, number of days/year, etc.)
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Supporting descriptive information (if applicable)

C. Other Patient Care

<u>LOCATION/SERVICE</u>	<u>DESCRIBE ACTIVITY</u> (e.g. patient care, call, surgery, etc.)	<u>TIME DEVOTED TO ACTIVITY</u> (e.g. number of half days/week, number of days/year, etc.)
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Supporting descriptive information (if applicable)