

# CURRICULUM VITAE

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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
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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**

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
2012 - 2013	XJB complexes with PEGylated carbon nanotubes (CNT) as mitigators of irradiation injury. Pilot Project; U19 AIO68021	NIAID CMCR		% <b>Effort</b>
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		% <b>Effort</b>

**Co-Principal Investigator**

**Co-Investigator on Grants  
ACTIVE:**

<b>2012-2023</b>	Lipids and Myeloid Cell Function in Cancer R01 CA165065-0	Wistar/NIH	\$85,044	2.4 Calendar
<b>2022-2024</b>	Deciphering the mechanisms of lipid reprogramming and signaling in dormant cancer cells awakening and immunosuppression by myeloid cells in tumor microenvironment 10047949	AstraZeneca	\$480,000	1.2 Calendar
<b>2019-2024</b>	Immunosuppression in Acute Lung Injury HL114453-06	OSU/NIH	\$205,705	2.4 Calendar
<b>2020-2025</b>	Regulation of Tumor Recurrence by Stress Activated Neutrophils NIH R01 CA243142-02	NIH	\$519,580	2.4 Calendar
<b>2021-2026</b>	Therapeutic targeting MDSC-mediated immune suppression in cancer 1R01 CA266342-01	NIH	\$1,812,201	3.6 Calendar

<b>Completed Years Inclusive</b>	<b>Grant and/or Contract Number and Title</b>	<b>Source</b>
2015-2020	Mechanism-Directed Sequential Delivery of Radiation Mitigators, Lipidomics and Bioanalytical U19 AI068021 Project 2 (1.8 Cal), Core B (1.8 Cal) and Core F (1.8 Cal)	NIH
2012-2017	Lipids and Myeloid Cell Function in Cancer 10-162826-99-01-G	H. Lee Moffitt/NIH
2013-2017	OXIDATIVE LIPIDOMICS CORE (Core B) 1 PO1 HL114453-01A1	NHLBI

2010-2015	Carbon Nanotubes Biodegradation by Neutrophil Myeloperoxidase R01 OH008282-09	CDC
2008-2013	Mechanisms of Preeclampsia Impact of Obesity P01 HD030367-17	NIH
2011-2013	Phosphatidylserine and its peroxidized and Lp-PLA <sub>2</sub> - hydrolyzed species on cell surface: Role in clearance of apoptotic cells by macrophages. 10019406	GSK
2009-2011	ARRA Funded - Irradiation Da-mage and Protection of Pulmonary Endothelium Oxidative Lipidomics; HL094488	NIH/NHLBI
2008-2013	Oxidative Lipidomics of Pulmonary Apoptosis in Hyperoxia; R01 HL070755- 05	NIH/NHLBI
06/01/10- 05/31/11	R01 HL070755-07 Oxidative Lipidomics of Pulmonary Endothelial Apoptosis in Hyperoxia	NIH/NHBI
09/01/09- 08/31/10	R01 HL094488-02 ARRA Funded - Irradiation Damage and Protection of Pulmonary Endothelium Oxidative Lipidomics	NIH/NHBI
2010-2011	Regulation of lyso- phospholipids for radiomitigation. Peroxidized and phospholipase A <sub>2</sub> -modified phospholipids in radiation- induced apoptosis as possible targets for radiomitigation	NIAID CMCR
9/30/2003- 5/31/2008	1 P01 HL070807-03 Mechanisms of Cytoprotection in acute lung injury.	NIH
6/1/2005- 5/31/2009	SAP4100027294 Center for Excellence in Detection, Diagnosis and Intervention in Dementia	Dept of Health

2/13/2006- 2/12/2008	W81XWH-06-1-0247 Novel Strategies in Experiemental Traumatic Brain Injury	US Army
6/14/2002- 1/31/2008	5 P01 HD030367-13 Preeclampsia Mechanisms and Post Pregnancy Implications (NCTE until 1/31/08)	NIH/Magee
3/1/1997- 6/30/2011	P50 NS030318-14 University of Pittsburgh Brain Trauma Research Center-Core A (replaces 108446)	NIH
09/15/11	Novel Mitochondrial Targeted drugs for Treatment of the Irradiation-Induced Hematopoietic Syndrome 0100200800062C	BARDA

**PENDING**

<b>Years Inclusive</b>	<b>Grant and/or Contract Number and Title</b>	<b>Source</b>	<b>Annual Direct Costs</b>	<b>% Effort</b>
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**b. Invited Lectureships and Major Seminars Related to Your Research**

<b>Date</b>	<b>Title of Presentation</b>	<b>Venue</b>
May 2020	New pathway of generation lysophospholipids, phosphatidic acid and endocannabinoid 2- arachidonoyl-glycerol during inflammation.	CFRAH Seminar Series, May 5, 2020 zoom seminar University of Pittsburgh, Pittsburgh, PA
April 2020	Diversity of triacylglycerols, diacylglycerols and cholesterol esters molecular species in rat plasma from vitamin C deficient and vitamin C supplemented animals. LC-ESI-MS study	CFRAH Seminar Series, April 20, 2020 zoom seminar University of Pittsburgh, Pittsburgh, PA
February 2020	The role of phosphatidylethanolamine adducts in modification of the activity of membrane proteins, cell signaling and death pathways.	CFRAH Seminar Series, February 13, 2020 University of Pittsburgh, Pittsburgh, PA

December 2019	Formation of lysophospholipids by myeloperoxidase/H <sub>2</sub> O <sub>2</sub> /NaCl. LC-ESI-MS study of Lysophospholipids in PMN-MDSC	CFRAH Seminar Series, December 12, 2019 University of Pittsburgh, Pittsburgh, PA
September 2019	R-BEL Mitigates Total Body Irradiation By Inhibiting iPLA <sub>2</sub> $\gamma$ Which Prevents Lipid Mediator Generation in the Ileum	ASTRO Annual Meeting September 15 – 18, 2019 McCormick Place West Chicago, IL
June 2019	An inhibitor of iPLA <sub>2</sub> $\gamma$ , R-BEL, prevents lipid mediator generation in the ileum and leads to radiomitigation after total body irradiation.	67th Conference on Mass Spectrometry and Allied Topics, June 2 - 6, 2019, Atlanta, GA.
June 2019	Differential P. aeruginosa lipoxygenase (pLoxA) generates ferroptotic cell death signals in host human bronchial epithelial cells: LC/MS study.	67th Conference on Mass Spectrometry and Allied Topics, June 2 - 7, 2019, Atlanta, GA.
April 2019	Formation of Lysophospholipids by Myeloperoxidase/HOCl. LC-ESI-MS study of LysoPL in PMN-MDSC.	CFRAH Saturday Seminar Series, University of Pittsburgh, Pittsburgh, PA
June 2018	Differential LC-MS study of CLD1-driven diversification of cardiolipins in $\Delta^{12}$ -desaturase transfected yeast cells.	66th Annual Meeting on Mass Spectrometry, San Diego, CA
June 2018	PEBP1 enables 15-lipoxygenase 1 to generate ferroptotic cell death signals in primary human airway epithelial cells. LC/MS study	66th Annual Meeting on Mass Spectrometry, San Diego, CA
June 2017	Contribution of biosynthesis vs remodeling to the diversity of cardiolipins in genetically and nutritionally manipulated yeast cells: differential LC-MS assessments.	65th Annual Meeting on Mass Spectrometry, Indianapolis, Indiana



June 2017	Accumulation of oxygenated phosphatidylethanolamines as ferroptotic death signals characterized by oxidative phospholipidomics	65th Annual Meeting on Mass Spectrometry, Indianapolis, Indiana
June 2017	Identification and quantification of esterified hepxylin A3 in the ileum of mice after total body irradiation using oxidative phospholipidomics.	65th Annual Meeting on Mass Spectrometry, Indianapolis, Indiana
June 2016	LC-ESI-MS/MS analysis of oxygenated lipid droplets in dendritic cells treated with tumor explant supernatants.	64th Annual Meeting on Mass Spectrometry, San Antonio, Texas
June 2016	Identification and quantification of oxygenated arachidonoyl- and adrenoyl-phosphatidylethanolamines as ferroptotic death signals using oxidative phospholipidomics.	64th Annual Meeting on Mass Spectrometry, San Antonio, Texas
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 <sup>nd</sup> 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.	51 <sup>st</sup> Annual Meeting for Society of Toxicology, San Francisco, CA.
February 2012	Metabolites of 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 <sup>th</sup> Annual Meeting for Society of Toxicology; Washington DC.
March 2010	Phospholipid oxidative metabolism during macrophage response to environmental agents.	49 <sup>th</sup> 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 <sup>th</sup> Annual Meeting for Society of Toxicology, Baltimore.
March 2008	Phospholipid peroxidation biomarkers of Alzheimer's disease in the brain: selective oxidation of phosphatidylserine.	47 <sup>th</sup> Annual Meeting, Society of Toxicology, Seattle, WA.
March 2007	Mass spectrometric analysis of phospholipid molecular species and their hydroperoxides in	46 <sup>th</sup> Annual Meeting, Society of Toxicology, Charlotte, NC,

apoptotic neurons and injured  
rat brain.

### 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

2019-External reviewer: Elsevier Publishing Group  
Biochemistry (Moscow) - Springer

## PUBLICATIONS

### 1. Refereed Articles

1. Kim R, Hashimoto A, Markosyan N, Sehgal M, **Tyurin VA**, Tyurina YY, Kar G, Kossenkov A, Gebregziabher BA, Tobias JW, Greenberg A, Garcia-Gerique L, Fu S, Hicks K, Donthireddy L, Vonderheide RH, Nefedova Y, Kagan VE, Gabrilovich D. Ferroptosis of tumor-associated neutrophils is immunosuppressive and promotes tumor growth. *Nature*, 2022, manuscript #2021-11-17472A is under revision.
2. Tyurina YY, Kapralov AA, **Tyurin VA**, Shurin G, Rajasundaram Bunimovich YL, Nefedova Y, Herrick WG, Parchment RE, Doroshov JH, Bayir H, Srivastava AK, Kagan VE. Redox phospholipidomics discovers pro-ferroptotic death signals in A375 melanoma cells in vitro and in vivo. 2022, Submitted to *Redox Biol*.
3. Dar HH, Epperly MW, **Tyurin VA**, Amoscato AA, Anthony-muthu TS, Souryavong AB, Kapralov AA, Shurin GV, Samovich SN, St Croix CM, Watkins SC, Wenzel SE, Mallampalli RK, Greenberger JS, Bayir H, Kagan VE, Tyurina YY. P. aeruginosa augments irradiation injury via 15-lipoxygenase-catalyzed generation of 15-HpETE-PE and induction of theft-ferroptosis. *JCI Insight*. 2022 Feb 22;7(4):e156013. doi: 10.1172/jci.insight.156013. PMID: 35041620, PMCID: PMC8876480.
4. Li W, Terada Y, Tyurina YY, **Tyurin VA**, Bery AI, Gauthier JM, Higashikubo R, Tong AY, Zhou D, Nunez-Santana F, Lecuona E, Hassan A, Hashimoto K, Scozzi D, Puri V, Nava RG, Krupnick AS, Lavine KJ, Gelman AE, Miller MJ, Kagan VE, Bharat A, Kreisel D. Necroptosis triggers spatially restricted neutrophil-mediated vascular damage during lung ischemia reperfusion injury. *Proc Natl Acad Sci U S A*. 2022 Mar 8;119(10): e2111537119 doi: 10.1073/pnas.2111537119

5. Bednash JS, Kagan VE, Englert JA, Farkas D, Tyurina YY, **Tyurin VA**, Samovich SN, Farkas L, Elhance A, Johns F, Lee H, Cheng L, Majumdar A, Jones D, Mejia OR, Ruane-Foster M, Londino JD, Mallampalli RK, Robinson RT. Syrian hamsters as a model of lung injury with SARS-CoV-2 infection: Pathologic, physiologic, and detailed molecular profiling. *Transl Res.* 2022 Feb; 240:1-16. doi: 10.1016/j.trsl.2021.10.007. Epub 2021 Nov 2.
6. Vats K, Kruglov O, Mizes A, Samovich SN, Amoscato AA, **Tyurin VA**, Tyurina YY, Kagan VE, Bunimovich YL. Keratinocyte death by ferroptosis initiates skin inflammation after UVB exposure. *Redox Biol.* 2021 Nov; 47:102143. doi: 10.1016/j.redox.2021.102143. Epub 2021 Sep 25. PMID: 34592565
7. Dar HH, Anthonymuthu TS, Ponomareva LA, Souryavong AB, Shurin GV, Kapralov AO, **Tyurin VA**, Lee JS, Mallampalli RK, Wenzel SE, Bayir H, Kagan VE. A new thiol-independent mechanism of epithelial host defense against Pseudomonas aeruginosa: iNOS/NO• sabotage of the ferroptosis. *Redox Biol.* 2021 Sep; 45:102045. doi: 10.1016/j.redox.2021.102045. Epub 2021 Jun 16. PMID: 34167028
8. Li M, Sun W, **Tyurin VA**, DeLucia M, Ahn J, Kagan VE, and van der Wel PCA. Activation of Cytochrome C Peroxidase Function Through Coordinated Foldon Loop Dynamics upon Interaction with Anionic Lipids. *J. Mol Biol.*, 2021, 433 (15), July 2021, 167057.
9. Beatty A, Singh T, Tyurina YY, **Tyurin VA**, Samovich S, Nicolas E, Maslar K, Zhou Y, Cai KQ, Tan Y, Doll S, Conrad M, Subramanian A, Bayir H, Kagan VE, Rennefahrt U, Peterson JR. Ferroptotic cell death triggered by conjugated linolenic acids is mediated by ACSL1. *Nat Commun.* 2021 Apr 14;12(1):2244. doi: 10.1038/s41467-021-22471-y. PMID: 33854057
10. Protchenko O, Baratz E, Jadhav S, Li F, Shakoury-Elizeh M, Gavrilova O, Ghosh MC, Cox JE, Maschek JA, **Tyurin VA**, Tyurina YY, Bayir H, Aron AT, Chang CJ, Kagan VE, Philpott CC. Iron Chaperone Protein 1 Protects Mouse Liver From Lipid Peroxidation and Steatosis. *Hepatology.* 2021 Mar;73(3):1176-1193. doi: 10.1002/hep.31328. Epub 2020 Nov 3. PMID: 32438524
11. Anthonymuthu TS, Tyurina YY, Sun WY, Mikulska-Ruminska K, Shrivastava IH, **Tyurin VA**, Cinemre FB, Dar HH, VanDemark AP, Holman TR, Sadovsky Y, Stockwell BR, He RR, Bahar I, Bayir H, Kagan VE. Resolving the paradox of ferroptotic cell death: Ferrostatin-1 binds to 15LOX/PEBP1 complex, suppresses generation of peroxidized ETE-PE, and protects against ferroptosis. *Redox Biol.* 2021 Jan; 38:101744. doi: 10.1016/j.redox.2020.101744. PMID: 33126055, PMCID: PMC7596334
12. Jang S, Chapa-Dubocq XR, Tyurina YY, St Croix CM, Kapralov AA, **Tyurin VA**, Bayir H, Kagan VE, Javadov S. Elucidating the contribution of mitochondrial glutathione to ferroptosis in cardiomyocytes. *Redox Biol.* 2021 Sep 45: 102021. doi: 10.1016/j.redox.2021.102021. Epub 2021 Jun 1. PMID: 34102574
13. Kagan VE, Tyurina YY, Vlasova II, Kapralov AA, Amoscato AA, Anthonymuthu TS, **Tyurin VA**, Shrivastava IH, Cinemre FB, Lamade A, Epperly MW, Greenberger JS, Beezhold DH, Mallampalli RK, Srivastava AK, Bayir H, Shvedova AA. Redox Epiphospholipidome in Programmed Cell Death Signaling: Catalytic Mechanisms and Regulation. *Frontiers in Endocrinology, Review, Front Endocrinol.* 2021, 11, 628079. Published online 2021 Feb 19. doi: 10.3389/fendo.2020.628079 PMCID: PMC7933662
14. Beharier O, **Tyurin V**, Goff J, Guerrero-Santoro J, Kajiwarra K, Chu T, Tyurina Y, St. Croix C, Wallace C, Parry S, Parks WT, Kagan V, Sadovsky Y. PLA2G6 guards placental trophoblasts against ferroptotic injury. *PNAS.* 2020, 117(44), 27319-27328. PMCID: PMC7959495
15. Sun W-Y, **Tyurin VA**, Mikulska-Ruminska K, Shrivastava IH, Liu B, Zhai Y-J, Pan MH, Gong H-B, Lu D-H, Sun J, Duan W-J, Korolev S, Abramov AY, Angelova PR, Miller I, Beharier O, Mao G-W, Dar HH, Kapralov AA, Hastings TG, Greenamyre JT, Chu CT, Sadovsky Y, Bahar I, Bayir H, Tyurina YY, He R-R, Kagan VE. Phospholipase iPLA2b Averts Ferroptosis by Eliminating Redox Lipid Death Signal: Relevance to Parkinson's Disease. *Nature Chem. Biol.* 2021, 17, 465-476. PMID: 33542532, PMCID: PMC8152680
16. Peregó M, **Tyurin VA**, Tyurina YY, Yellets J, Nacarelli T, Lin C, Nefedova Y, Kossenkov A, Liu Q, Sreedhar S, Pass H, Roth J, Vogl T, Feldser D, Kagan VE, Zhang R, Dmitry I. Gabrilovich DI. Regulation of tumor dormancy by stress induced neutrophils. Reactivation of dormant tumor cells by modified lipids derived from stress-activated neutrophils. *Sci Transl*

- Med.* 2020; Dec 2;12(572):eabb5817. doi: 10.1126/scitranslmed.abb5817. PMID: 33268511, PMCID: PMC8085740
17. Ugolini A, **Tyurin V**, Tyurina Y, Tsyganov E, Kagan VE\*, Gabrilovich DI, Veglia F. [PMN-MDSC block cross-presenting ability of dendritic cells in cancer](#). *Journal of Clinical Investigation* 2020; Aug 6;5(15):e138581. doi: 10.1172/jci.insight.138581. PMID: 32584791, PMCID: PMC7455061.
  18. Kapralov AA, Yang Q, Dar HH, Tyurina YY, Anthonyuthu TS, Kim R, St Croix CM, Mikulska-Ruminska K, Liu B, Shrivastava IH, **Tyurin VA**, Ting HC, Wu YL, Gao Y, Shurin GV, Artyukhova MA, Ponomareva LA, Timashev PS, Domingues RM, Stoyanovsky DA, Greenberger JS, Mallampalli RK, Bahar I, Gabrilovich DI, Bayir H, Kagan VE. [Redox lipid reprogramming commands susceptibility of macrophages and microglia to ferroptotic death](#). *Nat Chem Biol.* 2020;16(3):278-290. doi: 10.1038/s41589-019-0462-8. PMID: 32080625
  19. Hussey GS, Pineda Molina C, Cramer MC, Tyurina YY, **Tyurin VA**, Lee YC, El-Mossier SO, Murdock MH, Timashev PS, Kagan VE, Badylak SF. [Lipidomics and RNA sequencing reveal a novel subpopulation of nanovesicle within extracellular matrix biomaterials](#). *Sci Adv.* 2020; 6(12): eaay4361. doi: 10.1126/sciadv.aay4361. eCollection 2020 Mar. PMID: 32219161, PMCID: PMC7083606
  20. Tyurina YY, **Tyurin VA**, Anthonyuthu T, Amoscato AA, Sparvero LJ, Nesterova AM, Baynard ML, Sun W, He R, Khaitovich P, Vladimirov YA, Gabrilovich DI, Bayir H, Kagan VE. ["Redox lipidomics technology: Looking for a needle in a haystack"](#). *Chem Phys Lipids.* 2019;221:93-107. doi: 10.1016/j.chemphyslip.2019.03.012. Review.PMID:30928338, PMCID:PMC6714565
  21. Tyurina YY, St Croix CM, Watkins SC, Watson AM, Epperly MW, Anthonyuthu TS, Kisin ER, Vlasova II, Krysko O, Krysko DV, Kapralov AA, Dar HH, **Tyurin VA**, Amoscato AA, Popova EN, Bolevich SB, Timashev PS, Kellum JA, Wenzel SE, Mallampalli RK, Greenberger JS, Bayir H, Shvedova AA, Kagan VE. [Redox \(phospho\)lipidomics of signaling in inflammation and programmed cell death](#). *J Leukoc Biol.* 2019;106(1):57-81. doi: 10.1002/JLB.3MIR0119-004RR. Review.PMID:31071242, PMCID:PMC6626990
  22. Kagan VE, Tyurina YY, Sun WY, Vlasova II, Dar H, **Tyurin VA**, Amoscato AA, Mallampalli R, van der Wel PCA, He RR, Shvedova AA, Gabrilovich DI, Bayir H. [Redox phospholipidomics of enzymatically generated oxygenated phospholipids as specific signals of programmed cell death](#). *Free Radic Biol Med.* 2020; 147:231-241. Review. PMID:31883467 PMCID: PMC7037592
  23. Veglia F, **Tyurin VA**, Blasi M, De Leo A, Kossenkov AV, Donthireddy L, To TKJ, Schug Z, Basu S, Wang F, Ricciotti E, DiRusso C, Murphy ME, Vonderheide RH, Lieberman PM, Mulligan C, Nam B, Hockstein N, Masters G, Guarino M, Lin C, Nefedova Y, Black P, Kagan VE, Gabrilovich DI. [Fatty acid transport protein 2 reprograms neutrophils in cancer](#). *Nature*, 2019 569(7754): 73-78. doi: 10.1038/s41586-019-1118-2. Epub 2019 Apr 17. PMID: 30996346
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## 2. Books and Book Chapters

1. **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.
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### 3. Published Proceedings

1. Beharier O, **Tyurin V**, Goff J, Guerrero-Santoro J, Kajiwarra K, Chu T, Tyurina Y, St. Croix C, Wallace C, Parry S, Parks WT, Kagan V, Sadovsky Y. [PLA2G6 guards placental trophoblasts against ferroptotic injury.](#) *PNAS*, 2020, 117(44), 27319-27328. PMID: PMC7959495

### 4. Invited Articles

1. Samhan-Arias AK, Ji J, Demidova OM, Sparvero LJ, Feng W, **Tyurin V.A.**, 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
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## 7. Presentations

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2. Tyurina Y, Zhao J, St. Croix CM, Watkins SC, **Tyurin VA**, Anthonymuthu TS, Amoscato AA, Haider D, Rosenbaum J, VanDemark AP, Bayir H, Wenzel SE, Kagan VE. PEBP1 enables 15-lipoxygenase 1 to generate ferroptotic cell death signals in primary human airway epithelial cells. LC/MS study. 66<sup>th</sup> Conference on Mass Spectrometry and Allied Topics, June 3-7, 2018, San Diego, CA.
3. **Tyurin VA**, Veglia F, Amoscato A, Angelini R, Murphy M, Kapralov A, Mohammadyani D, Gabrilovich DI and Kagan VE. LC-ESI-MS/MS analysis of oxygenated lipid droplets in dendritic cells treated with tumor explant supernatants. 64<sup>th</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics June 5 - 9, 2016, San Antonio, TX.
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14. Frostegård J., **Tyurin VA**, Tyurina YY, Amoscato A, Su J, Balasubramanian KK, Maeda A, Fadeel B, Greenberger JS, Mallampali RK, Kagan VE. Interrelationships of peroxidation and immunogenicity of cardiolipin: an oxidative lipidomics approach. 51th Annual Meeting for Society of Toxicology; *The Toxicologist: Suppl. V.126, Suppl. 1*, Abstract No. 760, p.165, March 11-15, 2012, San Francisco CA.
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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.

**1. Service to School and University**

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

**2. Service to Field of Scholarship****a. Editorial Boards, Editorships**

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

<b>Dates</b>	<b>Journal Title</b>
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
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**

<b>Date</b>	<b>Position</b>	<b>Organization and Nature of Activity</b>
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**d. Leadership in Scholarly and Professional Organizations and Honorary Societies**



**Date                          Position                          Organization**

**3, Service for Practice and Policy-Making, including Consultantships**

**a. Governmental Organizations**

**Date                          Position                          Type of Service and/or Agency**

**b. Non-Governmental and Community-Based Organizations**

**Date                          Position                          Type of Service and/or Organization**

**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)