

# CURRICULUM VITAE

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BUSINESS ADDRESS: Department of Environmental and  
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## EDUCATION AND TRAINING

### Graduate

1973 – 1979	Medical Academy, Sofia, BULGARIA	MD, 1979	General Medicine
1989 - 1994	Medical Academy & Bulgarian Academy of Sciences, Sofia, BULGARIA	PhD, 1994	Molecular Biology and Biochemistry

### Post-Graduate

1995-1998	Department of Pharmacology, University of Pittsburgh, Pittsburgh, PA, USA	Postdoctoral fellow	Pharmacology
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## APPOINTMENTS AND POSITIONS

### Academic

2018-present	Professor With Tenure	Department of Environmental and Occupational Health University of Pittsburgh
2015-2018	Associate professor With tenure	Department of Environmental and Occupational Health University of Pittsburgh
2011-2014	Associate professor (non-tenure track)	Department of Environmental and Occupational Health University of Pittsburgh

October 1, 2005 –2011	Res. Assistant Professor	Department of Environmental and Occupational Health, University of Pittsburgh
Feb 1, 2005 – Sept 31, 2005	Res. Assistant Professor	Department of Pharmacology, University of Pittsburgh
1998 – January 31, 2005	Instructor	Department of Pharmacology, University of Pittsburgh, Pittsburgh, PA
1991 – Oct 30, 1995	Assistant professor	Department of Biochemistry, School of Medicine, Stara Zagora, BULGARIA
1986-1990	Instructor	Department of Biochemistry, School of Medicine, Stara Zagora, BULGARIA
1983 - 1985	Lecturer	Department of Biochemistry, School of Medicine, Stara Zagora, BULGARIA
<b>Non-Academic</b> 1980 – July 30, 1982	General Practitioner	Regional Hospital Strazhitca, BULGARIA

## MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

2008 – Present time	International Society to Advance Alzheimer Research and Treatment
2004 – Present time	Society for Neuroscience
2003 – Present time	American Society for Biochemistry and Molecular Biology
1996-1998	American Association for Cancer Research

## HONORS

1997	AACR - Pharmacia & Upjohn Young investigator Award
1998	AACR - Pharmingen Young investigator Award

## PROFESSIONAL ACTIVITIES:

### Teaching

#### Courses Taught

#### Graduate School of Public Health, University of Pittsburgh

2013 present	Graduate School of Public Health, University of Pittsburgh	Hours of Lecture – 3 classes (2 hours each); 25-30 students	Human genetics 2034 Biochemical and Molecular genetics of complex disease (Epigenetic mechanisms in human pathology)
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2015	Graduate School of Public Health, University of Pittsburgh	Hours of Lecture – 2 classes (2 hours each); 20 students	#3210: Pathophysiology of Environmental Disease (Physiology and Pathophysiology of the Nervous System) Journal club at EOH
2015-2019	Graduate School of Public Health, University of Pittsburgh	Hours of Lecture – (2 hours each); 10 PhD students	

### Graduate Student Essays, Theses, and Dissertations

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
Alexis Y. Carter	2013-2017	PhD thesis	Graduated April 2017
Emilie Castranio	2014-2018	PhD thesis	Graduated July 2018
Amrita Sahu	2016-2019	PhD thesis	Graduated December 2019

### Service on Master's or Doctoral Committees

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
May 2020	Emma (Li) Yu	MS	TREM2 effect on microglial function
May 2019	Cody M. Wofle	PhD	Role of APOE and Trem2 in AD pathology in mouse model for AD
December 2, 2019	Amrita Sahu	PhD	Klotho: A Paracrine Mediator of Skeletal Muscle Regeneration
July 2019	Nicholas Todd	PhD	Role of G protein-coupled receptors and G protein-coupled receptor kinases in Alzheimer's disease pathogenesis
June 2018	Cody M. Wolfe	PhD	Role of APOE and Trem2 in AD pathology in mouse model for AD
September 2018	Nicholas Todd	PhD	Role of G protein-coupled receptors and G protein-coupled receptor kinases in Alzheimer's disease pathogenesis
April 2014	Cody M. Wolfe	MS-2014	Traumatic brain injury: a comprehensive review
January 2011-April 2012	Xiaozhuo Lu	MS-2012	Role of ABCA1 in amyloid pathology in APP mice expressing different APOE isoforms
2012-2013	Mark Wong Chen	MS-2013	Environmental exposure to arsenic and its relation to genome-wide modification mouse offspring

**Service on Comprehensive or Qualifying Examination Committees:**

<b>Dates Served</b>	<b>Name of Student</b>	<b>Degree Awarded</b>	<b>Title of Dissertation/Essay</b>
June 2015	Alexis Y. Carter	April 2017	Role of High Fat Diet on epigenetic changes in the brain of Alzheimer's disease model mice
January and May 2018	Emilie Castranio	July 2018	The role of APOE in TBI as determined by isoform and ABCA1 haplo-deficiency
November 2017	Amrita Sahu	3 <sup>rd</sup> year PhD student	Klotho expression with aging and arsenic exposure
April 2020	Li Yu	2 <sup>nd</sup> year MS student	The role of <i>TREM2</i> in microglial function and Alzheimer's Disease

**Supervision of Post-Doctoral Students, Residents, and Fellows**

<b>Dates Supervised</b>	<b>Name of Student</b>	<b>Position of Student</b>
2007 – 2013	Nicholas F. Fitz, PhD	Postdoctoral fellow
2007 – 2013	Andrea A. Cronican, PhD	Postdoctoral fellow
March 2014-2017	Kyong Nam, PhD	Postdoctoral fellow
April 2014-April 2015	Danko Georgiev MD, PhD	Postdoctoral fellow
April 2014-2016	Anais Mounier PhD	Postdoctoral fellow
2015-2016	Valerie L. Reeves	Postdoctoral fellow
April 2016-present	Florent Letronne	Postdoctoral fellow
July 2016-2018	Hafsa Kamboh	Postdoctoral fellow
May 2019-present	Li Yu	Master student
2019-present	Vihba Acharya	PhD student

**Other Teaching and Training:****Pre-doctoral students and University of Pittsburgh Undergraduate Training**

<b>Dates</b>	<b>Name of Student</b>	<b>Program/Description</b>
January 2019	Rafael Guimaraes, Thais	Pre-doctoral PhD fellow; rotation
January 2019-present	Thomas H Thullen	Undergraduate, Department of Neuroscience
May 2018-2019	Sherrin Sennett	Pre-doctoral fellow
June 2017-June 2018	Heather Wells	Pre-doctoral fellow
2016-2018	Britany E. Playso	Pre-doctoral fellow
2015-2016	Jackson Towers B.S.	Pre-doctoral fellow
2014-2015	Saad Ahmed B.S.	Pre-doctoral fellow
2013-2014	Emilie Castranio B.S.	Pre-doctoral fellow
Dec 2012-July 2013	Sai Pratyusha Kancherla B.S.	Pre-doctoral fellow
2011-2013	Muzamil Saleem M.S	Pre-doctoral fellow
June 2015 - present	Emily Jacobetz	Undergraduate, Department of Neuroscience

<b>Dates</b>	<b>Name of Student</b>	<b>Program/Description</b>
2012-2013	Iana Vodianova	Undergraduate, Department of Neuroscience
2012-2013	Luv Purohit	Undergraduate, Department of Neuroscience
2011-2013	Hiral Patel	Undergraduate, Department of Neuroscience
2011-2012	Sai Pratyusha Kancherla	Undergraduate, Department of Neuroscience
June -Aug 2009	Sean Egglestone	EOH Summer Undergraduate Research Program
June -Aug 2008	Mitchell Thompson III	EOH Summer Undergraduate Research Program
June -Aug 2008	Alexis Carter	Pitt STEER Program for High School Students

## RESEARCH AND TRAINING

### Extramural Grants Support

#### Active:

1 R01 AG066198-01 **Koldamova R, Ambrosio F. (MPI)** Total amount \$3,912,375  
NIH/NIA 01/01/2020-2025  
“Physical exercise and Blood-brain communication: exosomes, Klotho and choroid plexus”

R01 AG057565-01A1 **Koldamova, R. and Lefterov, I. (MPI)**  
NIH/NIA 09/01/2018 – 08/31/2023 Total amount \$3,291,796.00  
“APOE Orchestrated Molecular Signatures in Aging Brain and AD-the Contribution of APOE2”

R01 AG056371-01S1 **Koldamova R, Lefterov I. (MPI)** Administrative supplement  
NIH/NIA 06/01/2018 – 05/31/2022 Total amount \$344,102  
“Age dependent APOE isoform specific effect on immune receptor mediated phagocytosis in brain”

R01 AG056371-01 **Koldamova R, Lefterov I. (MPI)**  
NIH/NIA 06/01/2017 – 05/31/2022 Total amount \$1,900,000  
“Age dependent APOE isoform specific effect on immune receptor mediated phagocytosis in brain”

R56 AG AG061097-01 PI: Gashev, Anatoliy (Koldamova, R. Co-PI)  
NIH/NIA 01/01/2020 – 08/31/2020 (2021-no cost extension) Total amount \$652,551  
“Mast cell/histamine-mediated inflammation and subsequent decrease of lymphatic amyloid beta clearance accelerate progression of Alzheimer's disease”

R01 RF1NS116450-01                      PI: Bistra Iordanova (**Koldamova, R. Co-PI**)  
NINDS/NIA                                      05/05/2020 –2025  
“Neurovascular and metabolic sex differences in contributions to cognitive impairment and dementia including Alzheimer's disease”

**Extramural Grant Support**

**Pending Council decision:**

None

**Extramural Grant Support – Completed (Principal Investigator, only):**

R01ES024233                      **Koldamova R, Lefterov I. (MPI)**  
NIH/NIEHS                                      09/01/2014 – 08/31/2019      Total amount \$2,600,000  
“Epigenetic and phenotypic effects of arsenic: impact on cognition and AD”:

R56 AG057565-01      **Koldamova R, Lefterov I. (MPI)**  
NIH/NIA                                      09/01/2017 – 08/31/2018      Total amount \$448,000  
APOE orchestrated "molecular signatures" in aging brain and AD - the contribution of APOE2

R01 AG037481                      Koldamova R. (PI)  
2011 – 2016  
NIH/NIA  
“LXR and human ApoE isoform effects on AD phenotype: in vitro and in vivo models”

R01 AG037481                      Koldamova R. (PI)  
2013 – 2016      Minority supplement  
NIH/NIA  
“LXR and human ApoE isoform effects on AD phenotype: in vitro and in vivo models”

R01 AG037481                      Koldamova R. (PI)  
2015      Administrative supplement  
NIH/NIA  
“LXR and human ApoE isoform effects on AD phenotype: in vitro and in vivo models”

R01 AG027973                      Koldamova (PI)  
2007-2012  
NIH/NIA  
“Role of Abca1 in neurodegeneration”

AG027973      Koldamova (PI)  
2007-2012      administrative supplement  
NIH/NIA  
“Role of Abca1 in neurodegeneration”

R21 AG027973                      Koldamova (PI)  
2005-2007  
NIH/NIA  
“Abca1: a potential therapeutic target for AD”

### **Invited Lectureships and Major Seminars Related to Research-Past 5 years**

May 2029, Varna Bulgaria	Signaling through Amyloid cascade in AD – an old, yet unresolved story	Medical University, Varna Bulgaria
December 2018, Indiana	Role of Apolipoprotein E in Alzheimer’s disease: gene-gene and gene-environment interactions	Stark Neurosciences Research Institute, IU School of Medicine
October 20, 2018, Brno, Czech Republic	Role of Apolipoprotein E in microglia response to A $\beta$	International Clinical Research Centre, St. Anne’s University Hospital
October 15, 2018. Bulgaria	Signaling through Amyloid cascade in AD – an old, yet unresolved story	Medical University, Varna Bulgaria
June 27-28, 2018, Tel Aviv Israel	Role of APOE lipoproteins in microglia response to Abeta	THE 26th TEL AVIV UNIVERSITY AD CONFERENCE
April 2018; LA	Effect of APOE isoform on microglial response to amyloid-b	Society for Brain Mapping and Therapeutics (SBMT) Alzheimer’s Disease Conference 2018
February 2018	“Role of Apolipoprotein E in Alzheimer’s disease: experimental and human data”	Invited speaker at Cleveland Clinic
October 19, 2017	Transcriptomic analysis of purified microglia from human APOE expressing mice reveals age-associated changes	Invited speaker at AAIC satellite meeting in Varna, Bulgaria.
September 2, 2017	APOE isoform-specific effect on Abeta clearance by microglia.	Invited speaker at Transport DEMENTIA meeting, Svolvar, Norway.
December 10, 2015	ABCA1, ApoE and ApoA-I and A $\beta$ clearance through BBB	Invited speaker at Transport DEMENTIA meeting, Oslo, Norway
February 10, 2014	Regulation of APOE and its function in Alzheimer's disease by ABCA1 and nuclear receptors - a decade of research	Invited Seminar Speaker, Department of Neuroscience, Merck, West Point, PA
Nov, 2013	Apolipoprotein E, ABCA1 and Ab clearance.	Invited Seminar Speaker, Department of Neuroscience, Genentech, South San Francisco, CA

July, 2013	Apolipoprotein E and ABCA1: partners in Ab clearance	Annual Alzheimer's Disease meeting, Tel-Aviv University, Israel
June, 2013	Abca1 regulation of ApoE function: how significant is it for Alzheimer's disease	ApoE, ApoE Receptors & Neurodegeneration June 3-4th, 2013 - Georgetown University in Washington, DC

## PUBLICATIONS

### Referred Articles

1. Nicholas F Fitz, Cody M Wolfe, Brittany E Playso, Richard J Biedrzycki, Yi Lu, Kyong Nyon Nam, Iliya Lefterov, **Radosveta Koldamova**. "Trem2 deficiency differentially affects phenotype and transcriptome of human APOE3 or APOE4 mice". *Molecular Neurodegeneration* (under review; second resubmission on June 9, 2020).
2. Florent Letronne, PhD, Richard J. Biedrzycki, MS, Nicholas F. Fitz, PhD, **Radosveta Koldamova**, MD, PhD, Iliya Lefterov, MD, PhD. Non-coding RNAs in plasma extracellular vesicles of Alzheimer's disease patients are differentially associated with APOE genotype: JEV (Journal of Extracellular Vesicles). Under review: Submitted on May 13, 2020
3. Amrita Sahu<sup>1,2</sup>, Nicholas Fitz<sup>2</sup>, Amin Cheikhi<sup>1,3</sup>, Sunita Shinde<sup>1</sup>, Zachary Clemens<sup>1</sup>, Abish Pius<sup>1</sup>, Hikaru Mamiya<sup>1,4</sup>, Ankit Bhatia<sup>5</sup>, Silvia Picciolini<sup>6</sup>, Cristiano Carlomagno<sup>6</sup>, Alice Gualerzi<sup>6</sup>, Marzia Bedoni<sup>6</sup>, Bennett Van Houten<sup>7</sup>, Iliya Lefterov<sup>2</sup>, Aaron Barchowsky<sup>2,7</sup>, **Radosveta Koldamova**<sup>2</sup>, \*Fabrisia Ambrosio<sup>1,2,4,8</sup>. Extracellular vesicles within young blood reverse aged-related declines in stem cell and tissue function. *Science advances* (Under review, submitted April 2020).
4. Nicholas F Fitz, Kyong Nyon Nam, Cody M Wolfe, Brittany E Playso, Richard J Biedrzycki, Yi Lu, Iliya Lefterov, **Radosveta Koldamova**. "In vivo microglial interaction with A $\beta$  is affected by APOE3 and APOE4 native lipoproteins". In preparation to be submitted in Neuron.
5. Florent Letronne, PhD, Richard J. Biedrzycki MS, Jadranka Milosevic, PhD, Cody M. Wolfe, MS, Kyong Nyon Nam, PhD, Nicholas F. Fitz, PhD, **Radosveta Koldamova**, MD, PhD, Iliya Lefterov, MD, PhD. Comparative cell and nuclear isolation strategies for transcriptomic analysis of neurons, microglia, and astrocytes. In preparation to be submitted to Exp Neurology
6. Iliya Lefterov, Cody M. Wolfe, Nicholas F. Fitz, Kyong Nyon Nam, Florent Letronne, Julia Kofler, Xianlin Han, Jianing Wang, Jonathan Schug, **Radosveta Koldamova**. APOE2 orchestrated differences in transcriptomic and lipidomic profiles of postmortem AD brain. *Alzheimers Res Ther*. 2019 Dec 30;11(1):113. doi: 10.1186/s13195-019-0558-0.
7. Cody M. Wolfe, Nicholas F. Fitz, Kyong Nyon Nam, Iliya Lefterov, **Radosveta Koldamova**. The Role of APOE and TREM2 in Alzheimer's Disease - Current Understanding and Perspectives. *International Journal of Molecular Sciences*. Invited review: Int J Mol Sci. 2018 Dec 26;20(1). pii: E81. doi: 10.3390/ijms20010081. Review



8. Fitz NF, Nam KN, **Koldamova R** & Lefterov I. “Therapeutic targeting of nuclear receptors, liver X and retinoid X receptors, for Alzheimer's disease”. *Br J Pharmacol*. 2019 Mar 29. doi: 10.1111/bph.14668. [Epub ahead of print]
9. Castranio EL, Wolfe CM, Letronne F, Nam KN, Fitz NF, **Koldamova R**, Lefterov I. ABCA1 haplodeficiency affects the brain transcriptome following traumatic brain injury in mice expressing human APOE isoforms. *Acta neuropathologica communications*. 2018 Jul 26;6(1):69. doi: 10.1186/s40478-018-0569-2.
10. Nam KN, Wolfe C, Fitz NF, , Letronne F, Carter AY, Castranio EL, Schug J, Lefterov I, **Koldamova R**. Integrated approach reveals diet, APOE genotype and gender affect immune response in APP mice. *Biochim Biophys Acta*. 2017 Oct 14;1864(1):152-161. doi: 10.1016/j.bbadis.2017.10.018. [Epub ahead of print]
11. Nam KN, Mounier A, Wolfe C, Fitz NF, Carter AY, Castranio EL, Kamboh HI, Reeves VL, Wang J, Han X, Schug J, Lefterov I, **Koldamova R**. Effect of high fat diet on phenotype, brain transcriptome and lipidome in Alzheimer's model mice. *Sci Rep*. 2017 Jun 27;7(1):4307. doi: 10.1038/s41598-017-04412-2.
12. Castranio EL, Mounier A, Wolfe CM, Nam KN, Fitz NF, Letronne F, Schug J, **Koldamova R**, Lefterov I. Gene co-expression networks identify Trem2 and Tyrobp as major hubs in human APOE expressing mice following traumatic brain injury. *Neurobiol Dis*. 2017 Sep;105:1-14. doi: 10.1016/j.nbd.2017.05.006. Epub 2017 May 11.
13. Carter AY, Letronne F, Fitz NF, Mounier A, Wolfe CM, Nam KN, Reeves VL, Kamboh H, Lefterov I, **Koldamova R**. Liver X receptor agonist treatment significantly affects phenotype and transcriptome of APOE3 and APOE4 Abca1 haplo-deficient mice. *PLoS One*. 2017 Feb 27;12(2):e0172161. doi: 10.1371/journal.pone.0172161. eCollection 2017.
14. Fitz, N. F., et al. (2017) “Abca1 deficiency affects dendritic density and cognitive function in mice”. *Journal of Alzheimer's Disease*, doi:10.3233/jad-161056 (2017)
15. Sweet RA, MacDonald ML, Ding Y, Schempf T, Jones-Laughner J, Kofler J, Ikonovic MD, Lopez OL, Garver ME, Fitz NF, **Koldamova R**, Yates NA. Apolipoprotein E\*4 (APOE\*4) Genotype Is Associated with Altered Levels of Glutamate Signaling Proteins and Synaptic Coexpression Networks in the Prefrontal Cortex in Mild to Moderate Alzheimer Disease. *Mol Cell Proteomics*. 2016 Jul;15(7):2252-62. doi: 10.1074/mcp.M115.056580. Epub 2016 Apr 21.
16. Kyong Nyon Nam, Anais Mounier, Nicholas F. Fitz, Cody Wolfe, Jonathan Schug, Iliya Lefterov and Radosveta **Koldamova**: RXR controlled regulatory networks identified in mouse brain counteract deleterious effects of A $\beta$  oligomers. *Sci Rep*. 2016 Apr 7;6:24048. doi: 10.1038/srep24048.
17. Nicholas F. Fitz, Victor Tapias, Andrea A. Cronican , Emilie Castranio, Muzamil Salem, Alexis Y. Carter, Martina Lefterova, Iliya Lefterov & Radosveta **Koldamova**, Opposing effects of Apoe/Apoa1 double deletion on amyloid  $\beta$  pathology and cognitive performance in APP mice. *Brain*. 2015 Dec;138(Pt 12):3699-715. doi: 10.1093/brain/awv293. Epub 2015 Oct 28.
18. Anais Mounier, Danko Georgiev, Kyong Nyon Nam, Nicholas F. Fitz, Emilie Castranio, Cody Wolfe, Andrea Cronican, Jonathan Schug, Iliya Lefterov and Radosveta **Koldamova**, Bexarotene activated Retinoid X Receptors regulate neuronal differentiation and dendritic complexity. *J Neurosci*. 2015 Aug 26;35(34):11862-76. doi: 10.1523/JNEUROSCI.1001-15.2015.

19. Lefterov, I., Jonathan Schug, Anais Mounier, Kyong Nyon Nam, Nicholas F. Fitz, and Radosveta **Koldamova**, *Neurobiology of Disease* “RNA-sequencing reveals transcriptional up-regulation of Trem2 in response to bexarotene treatment” (2015 Jun 10. pii: S0969-9961(15)00194-1).
20. **Koldamova R.**, Fitz FN, Lefterov I, ATP-binding cassette transporter A1: from metabolism to neurodegeneration. *Neurobiol Dis.* 2014 Dec;72 Pt A:13-21. doi: 10.1016/j.nbd.2014.05.007
21. **Koldamova R.**, Fitz FN, Lefterov I, Metabolic Disorders and Neurodegeneration, introduction to the special issue, *Neurobiol Dis.* 2014 Dec;72 Pt A:1-2.
22. Nicholas F. Fitz, Emilie L. Castranio, Alexis Y. Carter, Ravindra Kodali, Iliya Lefterov & Radosveta **Koldamova**: Improvement of memory deficits and A $\beta$  clearance in aged APP23 mice treated with a combination of anti-A $\beta$  antibody and LXR agonist. *J Alzheimer's Disease* 2014 Mar 18. [Epub ahead of print]
23. **Koldamova R**, Schug J, Lefterova M, Cronican AA, Fitz NF, Davenport FA, Carter A, Castranio EL, Lefterov I: “Genome-wide approaches reveal EGR1-controlled regulatory networks associated with neurodegeneration”. *Neurobiology Dis* 2014 Mar;63:107-14. doi: 10.1016/j.nbd.2013.11.005. Epub 2013 Nov 20.
24. Fitz NF, Cronican AA, Lefterov I, **Koldamova R**. Comment on "ApoE-directed therapeutics rapidly clear  $\beta$ -amyloid and reverse deficits in AD mouse models". *Science.* 2013 May 24;340(6135):924-c. doi: 10.1126/science.123580
25. Cronican AA, Fitz NF, Carter A, Saleem M, Shiva S, Barchowsky A, **Koldamova R**, Schug J, Lefterov I. Genome-wide alteration of histone H3K9 acetylation pattern in mouse offspring prenatally exposed to arsenic. *PLoS One.* 2013;8(2):e53478. doi:10.1371/journal.pone.0053478. Epub 2013 Feb 6
26. Fitz NF, Cronican AA, Saleem M, Fauq AH, Chapman R, Lefterov I, **Koldamova R**. Abca1 deficiency affects Alzheimer's disease-like phenotype in human ApoE4 but not in ApoE3-targeted replacement mice. *J Neuroscience.* 2012 Sep 19;32(38):13125-36
27. Lefterov I, Fitz NF, Cronican AA, Fogg A, Kodali R, Wetzel R, Radosveta **Koldamova** (2010) Apolipoprotein A-I deficiency increases cerebral amyloid angiopathy and cognitive deficits in APP/PS1dE9 mice. *J Biol Chem.* 285: 36945-36957.
28. Fitz Nicholas, Andrea Cronican, Tam Pham, Allison Fogg, Abdul H. Fauq, Robert Chapman, Iliya Lefterov & Radosveta **Koldamova** (2010). LXR agonist treatment ameliorates amyloid pathology and memory deficits caused by high fat diet in APP23 mice. *J Neuroscience*, 30: 6862-72.
29. Cronican, A.A., Fitz, N.F., Pham, T., Fogg, A., Kifer, B., **Koldamova, R.** & Lefterov, I. (2010) Proton pump inhibitor Lansoprazole is a nuclear Liver X Receptor agonist. *Biochemical Pharmacology*, 79: 1310-6.
30. Lefterov I., Fitz N., Cronican A., Lefterov P., Staufenbiel M., and **Koldamova R.**, (2009). Memory deficits in APP23/Abca1<sup>-/-</sup> mice correlate with the level of A $\beta$  oligomers. *ASN NEURO* (1):art:e0000x.doi:10.1042/AN20090015
31. Cohen AD, Ikonovic MD, Abrahamson EE, Paljug WR, DeKosky ST, Lefterov IM, **Koldamova RP**, Shao L, Debnath ML, Mason NS, Mathis CA, Klunk WE (2009). Anti-Amyloid Effects Of Small Molecule A $\beta$ -Binding Agents In PS1/APP Mice. *Letters in Drug Design and Discovery* 6: 437-444

32. Lefterov, I.; Bookout, A.L.; Wang, Z.; Staufenbiel, M.; Mangelsdorf, D.; **Koldamova, R.** (2007) Expression profiling in APP23 mouse brain: inhibition of A $\beta$  amyloidosis and inflammation in response to LXR agonist treatment, *Mol. Neurodegeneration* 2: 20
33. **Koldamova RP**, Staufenbiel M, Lefterov I, (2005). Lack of ABCA1 considerably decreases brain ApoE level and increases amyloid deposition in APP23 mice. *J Biol Chem.* 280: 43224-35.
34. Klunk WE, Brian J. Lopresti, Milos D. Ikonovic, Iliya M. Lefterov, Radosveta P. **Koldamova**, Eric E. Abrahamson, Manik L. Debnath, Daniel P. Holt, Guo-feng Huang, Li Shao, Steven T. DeKosky, Julie C. Price and Chester A. Mathis (2005) "Binding of the PET Tracer, Pittsburgh Compound-B (PIB), reflects the Amount of A $\beta$  in Alzheimer's Disease Brain, but not in PS1/APP Mouse Brain". *J. Neuroscience*, 25: 10598-606.
35. William E. Klunk, Brian J. Lopresti, Milos D. Ikonovic, Iliya M. Lefterov, Radosveta P. **Koldamova**, Eric E. Abrahamson, Manik L. Debnath, Daniel P. Holt, Guo-feng Huang, Li Shao, Steven T. DeKosky, Julie C. Price and Chester A. Mathis. (2005) Binding of the PET Tracer, Pittsburgh Compound-B (PIB), reflects the Amount of A $\beta$  in Alzheimer's Disease Brain, but not in PS1/APP Mouse Brain *J. Neuroscience*, Nov 16;25(46):10598-606
36. **Koldamova RP**, Lefterov IM, Staufenbiel M, Wolfe D, Huang S, Glorioso JC, Walter M, Roth MG, Lazo JS, (2005). "The LXR ligand T0901317 decreases amyloid beta production in vitro and in a mouse model of Alzheimer's disease". *J Biol Chem.* 280: 4079-88.
37. **Koldamova RP**, Lefterov IM, Ikonovic MD, Skoko J, Lefterov PI, DeKosky ST and Lazo JS (2003). "22R-Hydroxycholesterol and 9-cis-retinoic acid induce ABCA1 transporter expression and cholesterol efflux in brain cells and decrease Abeta secretion". *J Biol Chem.* 278(15):13244-56.
38. Lazo JS, Ducruet AP, **Koldamova RP.** (2003) Sleuthful pharmacology *Mol Pharmacol.* 64(2):199
39. Lefterov IM, **Koldamova RP**, Lefterova MI, Schwartz DR, Lazo JS (2001). Cysteine 73 in bleomycin hydrolase is critical for amyloid precursor protein processing. *Biochem. Biophys. Res. Comm.*, 283 (4):994-9.
40. **Koldamova RP**, Lefterov IM, Lefterova MI, Lazo JS (2001). Apolipoprotein A-I directly interacts with amyloid precursor protein and inhibits A beta aggregation and toxicity. *Biochemistry.* 40(12):3553-60.
41. Gadjeva, Vesselina G., and Radosveta P. **Koldamova** (2001). Spin-labeled 1-alkyl-1-nitrosourea synergists of antitumor antibiotics. *Anti-Cancer Drug Design*, Aug-Oct;16(4-5):247-53
42. Lefterov IM, **Koldamova RP**, Lazo JS (2000). Human bleomycin hydrolase regulates the secretion of amyloid precursor protein. *FASEB J.* 14(12):1837-47.
43. **Koldamova**, Radosveta P., Iliya M. Lefterov, Marc T. DiSabella, Simon C. Watkins, Ciprian Almonte and John S. Lazo (1999). Human bleomycin hydrolase binds ribosomal proteins. *Biochemistry*, 38 (22): 7111-7117.
44. **Koldamova**, R. P. Lefterov, I. M., Gadjeva. V., Lazo, J. S., (1998) Essential Binding and Functional Domains of Human Bleomycin Hydrolase. *Biochemistry* 37 (8): 2282-2290.
45. **Koldamova R.**, Lefterov I., DiSabella M., and Lazo J. S., (1998). Evolutionarily conserved cysteine protease, human bleomycin hydrolase, binds to the human homologue of UBC9. *Molecular Pharmacology*, 54: 954-961.

46. Lefterov, Iliya M., Radosveta P. **Koldamova**, Jeremy King, John S. Lazo (1998) The C-terminus of human bleomycin hydrolase is required for protection against bleomycin-induced chromosomal damage, *Mutation Res.* (421) 1 pp. 1-7
47. Lefterov I. and R. **Koldamova** (1992) Schedule dependent variation in lymphocyte sensitivity to Bleomycin and repair of chromosomal aberrations at G2 stage. *Mutation Res.* 284: 184-195.
48. **Koldamova** R. and I. Lefterov (1991) Synergistic effect of CCNU and Bleomycin on human lymphocytes exposed at late- G1 and G2 stage of the cell cycle. *Mutation Res.* 260: 265-269

### Invited Articles

1. **Koldamova** R, Fitz NF, Lefterov I. “ATP-Binding Cassette Transporter A1: From metabolism to Neurodegeneration” *Neurobiology of Disease*. 2014 May 17. pii: S0969-9961(14)00125-9. doi: 10.1016/j.nbd.2014.05.007. [Epub ahead of print]
2. **Koldamova** R, Fitz NF, Lefterov IM. The role of ATP-Binding Cassette Transporter A1 in Alzheimer's disease and neurodegeneration (2010). *Biochemica and Biophysica Acta - Molecular and Cell Biology of Lipids*, 1801: 824-830.
3. **Koldamova** R and Lefterov IM. (2007) Role of LXR and ABCA1 in the Molecular pathology of Alzheimer disease – Implications for a New Therapeutic Approach, *Current Alzheimer Research*, 4, 171

## SERVICE

### Service to School and University

Years	Committee	Position
January 2015-2018	GSPH Council, University of Pittsburgh	member
2011-2015	GSPH, University of Pittsburgh, Faculty Diversity Committee	member

### Service to Field of Scholarship

#### Editorial Boards, Editorships

Date	Position	Organization
July 2013 – June 2014	Guest Editor SI on Metabolism and Neurodegeneration	Neurobiology of Disease
January 2015-present	Associate editor	Journal of Alzheimer’s disease (JAD)

### Study Sections and Review Panels

Date	Position	NIH Study Section / Panel
June 2020	Reviewer	ZRG1 BDCN-A (55) Understanding Alzheimer’s disease
November 2019	Reviewer	ZRG1 F01A-F (20) Fellowships: Brain Disorders and Related Neuroscience
September, 2019	Reviewer	ZAG1 ZIJ-U (J1) Alzheimer’s and inflammation
July, 2019	Reviewer	NIH ZRG1 BDCN-W (07) Clinical and Biological Measures of TBI
July 22, 2019	Reviewer	ZRG1 BDCN-E (55) NIH special emphasis panel; Clinical and Biological Measures of TBI

<b>Date</b>	<b>Position</b>	<b>NIH Study Section / Panel</b>
May, 2019	Reviewer	NIH/NIA, special emphasis panel, PO grant review
November, 2017	Reviewer	NIH/NIA, special emphasis panel, PAR16-370 and PAR16-371) on APOE2
September, 2017	Reviewer	Brain Disorders and Clinical Neuroscience (BDCN) PAR17-033: Integrative Research to Understand the Impact of Sex Differences on the Molecular Determinants of AD Risk and Responsiveness to Treatment [ZRG1 BDCN-K (55) R]
July, 2017	Reviewer	NIH/NIA, special emphasis panel, PAR16-370 and PAR16-371) on APOE2
December, 2016	Reviewer	NINDS Special Emphasis Panel (SEP) ZNS1 SRB-C(02) to review two Program Project Grant proposals
August, 2016	Reviewer	NIH Special Emphasis Panel/Scientific Review Group <b>2016/10 ZGM1 RCB-0 (SC)</b> meeting.
June, 2016	Reviewer	NIH, Integrative Physiology of Obesity and Diabetes (IPOD) Study Section
March 2016	Reviewer	NIH Cellular and Molecular Biology of Neurodegeneration (CMND) Study Section
June, 2014	Reviewer	<b>NIH</b> , Molecular and Integrative Signal Transduction (MIST) Study Section and SRO, Retinopathy Studies member SEP, ZRG1 CB-G(02)
July, 2013	Reviewer	NIH/NIA, special emphasis panel
June, 2013	Reviewer	NIH/NIA, special emphasis panel
April, 2012	Reviewer	NIH/NIA-special emphasis panel
June, 2012	Reviewer	NIH/NIA-special emphasis panel
October 30, 2011	Reviewer	Special Emphasis Panel/Scientific Review Group 2012/01 ZAG1 ZIJ-6 (J2) meeting
June, 2011	Reviewer	NIH, CDIN study section
2007	Reviewer	NIH/NIA-special emphasis panel
2008	Reviewer	NIH/NIA-special emphasis panel
2009	Reviewer	NIH/NIA-special emphasis panel
2010	Reviewer	NIH/NIA-special emphasis panel
<b>Other agencies</b>		
2006 – Present	Reviewer	Alzheimer’s disease Association; Grant Review Panel
2004 – Present	Reviewer	ADRC, University of Pittsburgh, Review Panel
July, 2016	Reviewer	China-Israel NSFC-ISF Joint Scientific Research Program Grants
October, 2016	Reviewer	National Science Foundation, Modulation program of the Neural Systems Cluster of BIO/IOS
October, 2011	Reviewer	National Science Centre, Poland
2007-2008	Ad-hoc Reviewer	Internationale Stichting Alzheimer Onderzoek. (ISAO) Netherlands