SHU-YUAN CHENG, Ph.D.
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A. EDUCATION

Postdoctoral Scientist	(2007-2008)	New York University School of Medicine, Department of Psychiatry, New York, New York
Postdoctoral Scientist	(2003-2007)	New York Medical College, Department of Biochemistry and Molecular Biology, Valhalla, New York
Ph.D. in Toxicology	(2000-2003)	St. John's University, Jamaica, New York
MS in Toxicology	(1993-1996)	St. John's University, Jamaica, New York
BS in Pharmacy	(1987-1991)	Taipei Medical College, Taipei, Taiwan

B. POSITIONS AND HONORS

PROFESSIONAL EXPERIENCE

2018-Present	Chair, the Department of Sciences, John Jay College of Criminal Justice (CUNY), NY
2017-2018	Interim Chair, the Department of Sciences, John Jay College of Criminal Justice (CUNY), NY
2015-Present	Associate Professor of Biochemistry, The Graduate Center, CUNY, NY
2015-Present	Associate Professor, John Jay College of Criminal Justice (CUNY), NY
2009-2015	Assistant Professor of Biochemistry, The Graduate Center, CUNY, NY
2008-2015	Assistant Professor, John Jay College of Criminal Justice (CUNY), NY
2007-2008	Research Scientist and Postdoctoral Scientist, NYU School of Medicine, NY
2003-2007	Postdoctoral Scientist, New York Medical College, NY
2000-2003	Teaching Fellow, St. John's University, NY
1997-1999	Research Assistant, V.I. TECHNOLOGIES, INC., NY
1993-1997	Teaching Assistant, St. John's University, NY
1991-1993	Research Assistant, National Taiwan University Hospital, Taiwan

HONORS

2017	Outstanding Scholarly Mentoring Award
2012-2013	Certificate of Recognition, City University of New York --- securing major institutional grant funds
2011-2012	Certificate of Appreciation, Mentoring Graduate Dean's List Students
2011-2012	Certificate of Appreciation, Mentoring Dean's List Students
2001	Excellence Graduate Award, St. John's University

MEMBERSHIPS

2010 – Present Northeastern Association of Forensic Scientists

2004 – Present Society for Neuroscience

2002 – Present Rho Chi Society, College of Pharmacy and Allied Health Professions, St. John's University

2001 – Present Society of Toxicology (Full member since 2012)

C. PUBLICATIONS AND PRESENTATIONS

*** John Jay students**

**** High school students**

PUBLICATIONS **(After joining John Jay in 2008)**

1. Centazzo N*, Frederick B, Jacox A*, Cheng SY, and Concheiro M (2019) Wastewater Analysis for Nicotine, Cocaine, Amphetamines, Opioids and Cannabis in New York City. Forensic Sciences Research 4:152-167, DOI: 10.1080/20961790.2019.1609388
2. Zeng H, Wu J, Li S, Hui C*, Ta A, Cheng SY, Zheng S, and Zhang G (2019) Copper(II)-Catalyzed Selective Hydroboration of Ketones and Aldehydes. Organic Letters 21:401-406 (IF 6.492)
3. Zacarias O*, Aguilar W*, Paz MM, Tsukanov S, Cheng SY, Pradhan P, Champeil E (2018) Isolation and Rationale for the Formation of Isomeric Decarbamoylmitomycin C-N^6-deoxyadenosine Adducts in DNA. Chemical Research in Toxicology 31:762-771. (IF 3.278)
4. Cheng SY, Vargas A*, Lee JY*, Clement CC, Champeil E (2018) Involvement of Akt in Mitomycin C and Its Analog Triggered Cytotoxicity in MCF-7 and K562 cancer cells. Chemical Biology and Drug Design 92:2022-2034, DOI: 10.1111/cbdd.13374 (IF 2.328)
5. Aguilar W*, Paz MM, Vargas A*, Zheng M*, Cheng SY, Champeil E (2018) Interdependent Sequence-Selectivity and Diastereoselectivity in the Alkylation of DNA by Decarbamoylmitomycin C. Chemistry - A European Journal 50: 13278-13289. **https://doi.org/10.1002/chem.201802038** (IF 5.317)
6. Aguilar W*, Paz MM, Vargas A*, Clement CC, Cheng SY, Champeil E (2018) Sequence-dependent diastereospecific and diastereodivergent crosslinking of DNA by decarbamoyl mitomycin C. Chemistry A European Journal 24:6030-6035. **https://doi.org/10.1002/chem.201705771** (IF 5.317)
7. Wang A**, Lim H, Cheng SY, Xie L (2018) ANTENNA, a multi-rank, multi-layered recommender system for inferring reliable drug-gene-disease associations: Repurposing diazoxide as a targeted anti-cancer therapy. IEEE/ACM Transactions on Computational Biology and Bioinformatics (Accepted on 2/26/2018) doi: 10.1109/TCBB.2018.2812189 (IF 1.955)

8. Cheng SY, Lopez Y*, Montes J* (2017) Maneb and mancozeb increase amyloid β precursor protein expression and activate PKR. J Cell Sci Apo 1:110.
9. Domashevskiy AV, Williams S*, Kluge C*, Cheng SY (2017) Plant translation initiation complex eIFiso4F directs pokeweed antiviral protein to selectively depurinate uncapped Tobacco Etch virus RNA. Biochemistry 56:5980-5990. https://pubs.acs.org/doi/10.1021/acs.biochem.7b00598 (IF 2.938)
10. Cheng SY, Ng-A-Qui T*, Eng B, and Ho J (2017) Detection of cathinone and mephedrone in plasma by LC-MS/MS using standard addition quantification technique. J Anal Sci Tech 8:19. DOI 10.1186/s40543-017-0128-7
11. Napolitano T*, Cheng SY, Nielsen B*, Choi C, Aguilar W*, Paz MM, Sapse AM and Champeil E (2017) Acetone promoted 1,4-migration of an alkoxycarbonyl group on a syn-1,2-diamine. Tetrahedron Letters 58:597-601. (IF 2.379)
12. Jacox A*, Wetzel J*, Cheng SY and Concheiro M (2017) Quantitative analysis of opioids and cannabinoids in wastewater samples. Forensic Sciences Research. 2:18-25. http://dx.doi.org/10.1080/20961790.2016.1270812
13. Cheng SY, Seo JW*, Huang BT*, Napolitano T*, and Champeil E (2016) Mitomycin C and decarbamoyl mitomycin C induce p53-independent p21WAF1/CIP1 activation. International J Oncology. 49:1815-1824. (IF 3.079)
14. Champeil E, Cheng SY, Huang BT*, Concherio-Guisan M, Martinez T, Paz MM, and Sapse AM (2016) Synthesis of mitomycin C and decarbamoylmitomycin C N^2 deoxyguanosine-adducts. Bioorganic Chemistry. 65:90-99. (IF 3.231)
15. Zhang G, Tan J, Zhang YZ, Ta C*, Sanchez S*, Cheng SY, Golen JA, and Rheingold AL (2015) Syntheses, structures and cytotoxicity of cobalt (II) complexes with 4'-chloro-2,2':6'2"-terpyridine. Inorganica Chimica Acta. 435:147-152.
16. Domashevskiy AV and Cheng SY (2015) Thermodynamic analysis of binding and enzymatic properties of pokeweed antiviral protein (PAP) toward Tobacco Etch virus (TEV) RNA. J Nature and Sci. 1:e82.
17. Zhen J, Antonio T, Cheng SY, Ali S, Jones KT, and Reith MEA (2015) Dopamine transporter oligomerization: impact of combining protomers with different cocaine analog binding affinities. J Neurochem. 133:167-173.
18. Zhang G, Ta C*, Cheng SY, Golen JA, and Rheingold AL (2014) Clicking thiourea into a salen scaffold: stuctures and cytotoxicity of cobalt (II) and nickel (II) complexes. Inorganic Chem Communications. 48:127-130.
19. Cheng SY, Oh S*, Velasco M*, Ta C*, Montalvo J*, and Calderone A* (2014) RTP801 regulates maneb- and mancozeb-induced cytotoxicity via NF-kappa B. J Biochem Mol Toxicology, 28, 302-311.
20. Williams C*, Lin Y*, Maynard A*, and Cheng SY (2013) Involvement of NF Kappa B in

potentiated effect of Mn-containing dithiocarbamates on MPP^+ induced cell death. Cellular and Molecular Neurobiology, 33, 815-823.

21. Kortagere S, Cheng SY, Antonio T, Zhen J, Reith MEA, and Dutta AK (2011) Interaction of novel hybrid compounds with the D3 dopamine receptor: Site-directed mutagenesis and homology modeling studies. Biochemical Pharmacology 81:157-163.
22. Li Y, Cheng SY, Chen N, and Reith ME (2010) Interrelation of dopamine transporter oligomerization and surface presence as studied with mutant transporter proteins and amphetamine. J Neurochem 114:873-885.
23. Cheng SY, Serova LI, Sabban EL (2009) Immobilization stress elevates intron-containing transcripts for tyrosine hydroxylase in rat superior cervical ganglia indicating transcriptional activation. Stress 12(6):544-8.
24. Kurian MA, Zhen J, Cheng SY, Li Y, Mordekar SR, Jardine P, Morgan NV, Meyer E, Tee L, Pasha S, Wassmer E, Heales SJ, Gissen P, Reith ME, Maher ER. (2009) Homozygous loss-of-function mutations in the gene encoding the dopamine transporter are associated with infantile parkinsonism-dystonia. J Clin Invest. 2009 Jun; 119(6):1595-1603.

PUBLICATIONS **(Before joining John Jay)**

- Serova LI, Gueorguiew VD, Cheng SY, and Sabban EL (2008) Adrenocorticotropic hormone elevates gene expression for catecholamine biosynthesis in rat superior cervical ganglia and locus coeruleus by an adrenal independent mechanism. Neuroscience 153:1380-9
- Cheng SY, Serova LI, Glazkova D and Sabban EL (2008) Regulation of rat dopamine β-hydroxylase gene transcription by early growth response gene 1 (Egr1). Brain Research 1193:1-11
- Gueorguiev VD, Cheng SY, and Sabban EL. (2006) Prolonged activation of CREB and ATF-2 needed for nicotine triggered elevation of tyrosine hydroxylase gene transcription in PC12 cells. J Biol Chem. 281:10188-95.
- Cheng SY, Glazkova DV, Serova LI, and Sabban EL (2005) Effect of prolonged nicotine infusion on response of rat catecholamine biosynthetic enzymes to restraint and cold stress. Phamacology, Biochemisty and Behavior 82:559-568.
- Cheng SY and Trombetta LD (2004) The induction of amyloid precursor protein and α-synuclein in astroglial by diethyldithiocarbamate (DDC) and copper with or without glutathione (GSH). Toxicology Letters, 146:139-149

PRESENTATIONS AT NATIONAL CONFERENCES **(poster presentation after joining John Jay)**

- Zheng M*, Cheng SY, Clement CC, and Champeil E (2018) Molecular pharmacology study of a new derivative of the anticancer drug mitomycin C. Nature Conferences: NYU Nature Conference on Chemical Biology, ABS#65, New York, NY, August 13-14

- Clement CC, Cheng SY, Dzieciatkowska M, Aguilar W*, and Champeil E (2018) Label free comparative protein expression profiling of MCF7 and K562 cancer cells treated with mitomycin C and decarbamoylmitomycin C. ASMS Conference on Mass Spectrometry and Allied Topics, ABS# 295603, San Diego, CA, June 3 - 7
- Vargas A*, Lee JY*, Cheng SY (2018) Akt Involvement in p21 Activation Induced by Mitomycin C and Its Analog. 57th Society of Toxicology annual meeting, ABS# 2474, San Antonio, TX, March 11-15
- Javed R*, Cheng SY (2018) Thymoquinone Attenuates Maneb and Mancozeb-Induced Cytotoxicity. 57th Society of Toxicology annual meeting, ABS# 2932, San Antonio, TX, March 11-15
- Yakovishina V*, Cheng SY (2018) Maneb and Mancozeb Trigger Cellular Senescence via AKT and FOXO. 57th Society of Toxicology annual meeting, ABS# 2251, San Antonio, TX, March 11-15
- Clement CC, Cheng SY, Dzieciatkowska M, Aguilar W*, and Champeil E (2017) Label free proteomics profiling of MCF7 and K562 cancer cells treated with mitomycin C and dicarbamoyl mitomycin C identifies main cellular networks leading to inhibition of tumor cell proliferation. American Society for Cell Biology (ASCB) | European Molecular Biology Organization (EMBO) Meeting in Philadelphia, PA, December 2-6. P1310
- A. Wang**, H. Lim, S.-Y. Cheng, L. Xie (2017) "ANTENNA, a Multi-Rank, Multi-Layered Recommender System for Inferring Reliable Drug-Gene-Disease Associations: Repurposing Diazoxide as a Targeted Anti-Cancer Therapy". BioKDD'17. Halifax, Canada
- Yakovishina V*, Simone N** and Cheng SY (2017) Involvement of p53 and p2111 in maneb and mancozeb induced senescence. 56th Society of Toxicology annual meeting, ABS# 2650, Baltimore, MD, March 12-16
- Jacox A*, Cheng SY, and Concheiro-Guisan M (2016) Simultaneous Quantitative Analysis of Prescription Opioids and Cannabis in Wastewater Samples. Eastern Analytical Symposium #158, Somerset, NJ, November 14-16
- Cheng SY and Swenson S (2016) Scaffolding Assessment of Forensic Toxicology Program. 55th Society of Toxicology annual meeting, ABS# 1377, New Orleans, LA, March 13-17
- Metodieva M*, Simone N, Seo J*, Ta C*, and Cheng SY (2016) Maneb and mancozeb induce senescence via p53, p27 and p15/16 pathways. 55th Society of Toxicology annual meeting, ABS# 2890, New Orleans, LA, March 13-17
- Seo J*, Huang BT*, Cheng SY, and Champeil E (2016) p53-independent activation of p21 in response to mitomycin C and decarbamoylmitomycin C. 55th Society of Toxicology annual meeting, ABS# 1316, New Orleans, LA, March 13-17
- Cheng SY (2015) Student-centered learning: from student, by student, and for student. 54th Society of Toxicology annual meeting, ABS# 1211, San Diego, CA, March 22-26

- Lopez Y*, Montes J*, and Cheng SY (2015) Manganese-containing dithiocarbamates increase the expression of amyloid precursor protein and the level of phosphorylated PKR. 54th Society of Toxicology annual meeting, ABS# 2143, San Diego, CA, March 22-26
- Seo J* and Cheng SY (2015) Mancozeb induced cell cycle arrest and senescence via RTP801. 54th Society of Toxicology annual meeting, ABS# 2142, San Diego, CA, March 22-26
- Champeil E, Cheng SY, Huang BT*, and Seo J* (2015) Role of p21 in the toxicity of mitomycin C and decarbamoyl-mitomycin C. Amercan Association for Cancer Research, ABS# 2453, Philadelphia, PA, April 18-22
- Champeil E, Cheng SY, Huang BT*, and Seo J* (2014) Synthesis of mitomycin C and decarbamoyl-mitomycin C interstrand cross links. Role of p21 in their toxicity. Mammalian DNA Repair Gordon Research Conference, ABS# A14, Ventura, CA, Feburary 8-13
- Montes J* and Cheng SY (2014) The effects of manganese-containing dithiocarbamates on activated double-stranded RNA dependent protein kinase (PKR) and mammalian target of rapamycin (mTOR) signaling pathways. 14th Annual Biomedical Research Conference for Minority Students, San Antonio, TX, November 21-24
- Lopez Y* and Cheng SY (2014) Manganese-containing dithiocarbamate pesticides increase β-amyloid precursor protein and β-amyloid peptide expression in PC12 cells. 14th Annual Biomedical Research Conference for Minority Students, San Antonio, TX, November 21-24
- Seo J* and Cheng SY (2014) Mitomycin C and 10-decarbamoyl mitomycin C activity study on p53 wild-type and deficient cancer cells using flow cytometry. 14th Annual Biomedical Research Conference for Minority Students, San Antonio, TX, November 21-24
- Ho J, Cheng SY, Ng-A-Qui T*, and Eng B (2014) Analysis of Cathinones in Plasma Using LC-MS/MS. 62nd American Society for Mass Spectrometry (ASMS) Conference on Mass Spectrometry and Allied Topics, ABS#598, Baltimore, MD, June 15 - 19
- Ta C* and Cheng SY (2014) Manganese-containing dithiocarbamate-induced cell deaths via senescence pathway. 53rd Society of Toxicology annual meeting, ABS# 1853, Phoenix, AZ, March 23-27
- Cheng SY, Domashevskiy A and Kobilinsky L (2014) The effect of eukaryotic initiation factors on the activity of pokeweed antiviral protein. 53rd Society of Toxicology annual meeting, ABS# 786, Phoenix, AZ, March 23-27
- Ng-A-Qui T*, Eng B, and Cheng SY (2014) Extraction process efficiency study of cathinones by solid phase extraction. 66th Annual Scientific Meeting, American Academy of Forensic Sciences, Young Forensic Scientists Forum: Bring Your Own Slides (oral presentation), Seattle, WA, February 17-22
- Stoll A* and Cheng SY (2013) Role of alpha-synuclein and its mutants on dithiocarbamates cytotoxicity. 52nd Society of Toxicology annual meeting, ABS# 2150, San Antonio, TX, March 10-14 (UNDERDRADUATE TOXICOLOGY EDUCATION AWARD)

- Hui C*, Carpi A and Cheng SY (2013) Effects of mercuric chloride on cell surface expression of dopamine transporter in PC12 cells. 52nd Society of Toxicology annual meeting, ABS# 1404, San Antonio, TX, March 10-14
- Oh S*, Ta C*, Calderone A*, and Cheng SY (2013) The role of RTP801 in maneb- and mancozeb-induced cytotoxicity. 52nd Society of Toxicology annual meeting, ABS# 1405, San Antonio, TX, March 10-14
- Williams CA* and Cheng SY (2012) Maneb and mancozeb activate NF kappa B signaling pathway. 51st Society of Toxicology annual meeting, ABS# 2539, San Francisco, CA, March 11-15
- Domashevskiy A and Cheng SY (2012) Obligatory structural elements in Tobacco Etch Virus RNA required for depurination by Pokeweed antiviral protein. The American Society for Biochemistry and Molecular Biology annual meeting, San Diego, CA, April 21-25
- Stoll A* and Cheng SY (2012) Role of alpha-synuclein and its mutants on dithiocarbamates cytotoxicity. The American Society for Biochemistry and Molecular Biology annual meeting, ABS# 9968, San Diego, CA April 21-25
- Frenyea J*, Cheng SY, and Vivanco J (2012) The role of Pokeweed antiviral protein isoforms on bacterial growth. 51st Society of Toxicology annual meeting, ABS# 2410, San Francisco, CA, March 11-15
- Gonzalez-Lopez E* and Cheng SY (2012) The role of microtubule on dithiocarbamate cytotoxicity. 51st Society of Toxicology annual meeting, ABS# 2536, San Francisco, CA, March 11-15
- Cheng SY, Quinones J*, and Cuellar C* (2011) Role of dopamine transporter in maneb and mancozeb toxicity. 50th Society of Toxicology annual meeting, ABS#1347, Washington DC, March 6-10
- Cheng SY, Quinones J*, and Maynard A* (2010) Maneb enhances MPP+-induced cytotoxicity through activation of NF-kappa B in PC12 cells. 49th Society of Toxicology annual meeting, ABS# 1260, Salt Lake City, Utah, March 6-10
- Schmitt KC, Mamidyala S, Dutta AK, Cheng SY and Reith MEA (2008) Bivalent substrate-like molecules as novel dopamine transporter inhibitors: evidence for dual proximal substrate binding sites in a single transporter. 38th Annual Meeting, Society for Neuroscience 134.5/D65, Washington D.C., November 15-19
- Cheng SY, Chen N and Reith MEA (2008) Amphetamine and cocaine interfere with dopamine transporter oligomerization and trafficking. 38th Annual Meeting, Society for Neuroscience 1 Student's presentations 34.8/D68, Washington D.C., November 15-19

INVITED TALKS

- **GRADUATE PROGRAMS IN FORENSIC SCIENCE SEMINAR SERIES ---** November 2, 2017 at John Jay College of Criminal Justice
  Cheng SY (2017) Dopamine transporter and abusive drugs
- **Chemistry Club and STEM Academy** at Queensborough Community College --- April 28, 2017
  Cheng SY (2017) Pathways to cell death
- **PRISM "Café con Science" Seminar ---** February 7, 2017 at John Jay College of Criminal Justice
  Cheng SY (2017) Cell Death
- **Eastern Analytical Symposium (EAS) ---** November 14-16, 2016 at Somerset, NJ
  Jacox A, Cheng SY, and Concheiro-Guisan M (2016) Simultaneous Quantitative Analysis of Prescription Opioids and Cannabis in Wastewater Samples.
- **ACS Middle Atlantic Regional Meeting: Analytical Chemistry & Toxicology ---** June 10, 2016 at College of Mount Saint Vincent, Riverside, NY
  Concheiro-Guisan M, Jacox A, Wetzel J, and Cheng SY (2016) Quantitative analysis of licit & illicit drugs in river & wastewater samples
- **Eastern Analytical Symposium (EAS) ---** November 16-18, 2015 at Somerset, NJ
  Cheng SY, Ng-A-Qui, Eng B, and Ho J (2015) Detection of cathione and mephedrone in plasma by LC-MS/MS using standard addition quantification technique.
- **Undergraduate FOS club ---** April 29, 2010 at John Jay College of Criminal Justice
  Cheng SY (2010) The introduction of cellular and molecular toxicology
- **PRISM lecture ---** January 21, 2010 at John Jay College of Criminal Justice
  Cheng SY (2010) From Pesticides to Neurodegenerative disease
- **MS FOS seminar lecture ---** October 30, 2008 at John Jay College of Criminal Justice
  Cheng SY (2008) Pesticides and Parkinson's disease

THESIS/DISSERTATION

- Cheng SY (2003) The induction of amyloid precursor protein and α-synuclein in astroglial by diethyldithiocarbamate (DDC) and copper with or without glutathione (GSH). PHD dissertation, St. John's University
- Cheng SY (1996) The effects of diethyldithiocarbamate (DDC) on microtubular mRNA in rat hippocampal astroglia. Thesis, St. John's University

D. FUNDED RESEARCH SUPPORT

External Funding

- **Science and Technology Entry Program (STEP) at John Jay --- funded by New York State Education Department**
  Director **(2017-2020) ~**$160,000 each year
- **Department of Defense (DoD) Research and Education Program for Historically Black**

Colleges and Universities and Minority-Serving Institutions (HBCU/MI) Equipment/Instrumentation
W911NF-16-1-0430: Liquid chromatography tandem mass spectrometry in toxicology and environmental sciences research and education programs (PI: Concheiro-Guisan M, He Y, and Cheng SY) **2016** $ 231,182

- **Shimadzu equipment award** --- Shimadzu LCMS 8050 (PI: Concheiro-Guisan M, He Y, and Cheng SY) **2016** $190,000
- **PSC CUNY research award** – cycle 47: The relationship of epigenetic modification and senescence in response to manganese-containing dithiocarbamates in PC12 cells (PI: Cheng SY) **2016-2017** $3,500
- **PSC CUNY research award** – cycle 46: Role of p21 and p16 in manganese-containing dithiocarbamates induced cellular senescence (PI: Cheng SY) **2015-2016** $3,500
- **PSC CUNY Diversity Project Development Fund** --- Breaking the language barrier: Scientific writing support group to Asian students (PI: Cheng SY and He Y) **2014-2015** $5,000
- **NIH SCORE SC3** --- Correlation of MC and DMC-adducts structures with the role of p21 in the toxicity of the α-ICL and β-ICL (PI: Champeil E) **2014-2018** $463,000
  Role: Research Associate (This grant can only have one PI, no co-PI) --- performing 50% proposed project
- **PSC CUNY research award** – cycle 43: Role of RTP801 in Dithiocarbamate Toxicity (PI: Cheng SY) **2012-2013** $3,500
- **PSC CUNY research award** – cycle 42: Role of NF-kappa B in Dithiocarbamate Toxicity (PI: Cheng SY) **2011-2012** $3,500
- **NSF RAPID** --- Pokeweed Antiviral Protein: Seasonal and Compartmental Variants and Effects of Pathogens on Variant Production (PI: Kobilinsky) **2010-2012** $50,000
  Role: co-PI --- managed and implemented the research project; prepared the reports
- **NSF RUI** --- Pokeweed Antiviral Protein selection of mRNA; Effects of mRNA structure and initiation factors (PI: Kobilinsky) **2009-2013** $415,000
  Role: co-PI --- managed and implemented the research project; prepared the reports
- **Forensic Summer Institute at John Jay College for NYC high school science teachers** (which is part of **Comprehensive Science Initiative**, a comprehensive **Science grant for NYCDOE Districts**) (funded together with Dr. M Wallace and Dr. L Rourke) **2010-2012** $125,000
  Role: Coordinator/Instructor for Year 2011
- **National Institute of Health Ruth L. Kirschstein Research Service Award** (PI: Carr) **2007-2008** $48,000
  Role: Postdoctoral Scientist

Internal Funding

- **John Jay OAR Seed Money Program** --- Analysis of marijuana, prescribed narcotics and their metabolites in wastewater in New York City (PIs: Cheng and Concheiro-Guisan) **2015 $2000**
- **PRISM Equipment award** --- confocal microscope (PI: Cheng) **2015**
- **John Jay OAR Seed Money Program** --- The role of cellular senescence in response to manganese-containing dithiocarbamates (PI: Cheng) **2014**
- **PRISM Mentoring Incentive** (PRISM program of John Jay College) (PI: Cheng) **2014**
- **PRISM Equipment award** --- Countess Cell Counter (PI: Cheng) **2014**
- **John Jay Research Assistance Program fund** (PI: Cheng) **2010-2011**
- **PRISM Mentoring Incentive** (PI: Cheng) **2012**
- **PRISM Equipment award** --- Attune Acoustic Focusing Cytometer (PI: Cheng) **2012**
- **PRISM Equipment award** --- Bio-Rad CFX96 Touch real-time PCR detection system (PI: Cheng) **2012**
- **PRISM Equipment award** --- Nikon Eclipse E600 Fluorescent Microscope FRET Upgrade (PI: Cheng) **2011**
- **PRISM Equipment award** --- BioTek Microplate reader Synergy Mx (PI: Cheng) **2010**
- **John Jay Start up grant** (PI: Cheng) **2008-2011**

E. TEACHING AND MENTORING

COURSES

- TOX 313 Environmental and Industrial Agents (Lecture)
- TOX 415 Forensic Pharmacology (Laboratory)
- TOX 416 Analytical Toxicology (Lecture and Laboratory)
- FOS 726 Forensic Toxicology (Laboratory)
- BIO 356 Anatomy and Physiology (Laboratory) --- New proposed course (Fall 2012)
- BIO 412/413 Molecular Biology I/II (Laboratory)

LABORATORY MANUALS

- Concheiro-Guisan M, Cheng SY, Eng B, Pomales A, and Narayne T (2016-2017) Toxicology Laboratory Manual 2016-2017
- Cheng SY, Eng B, and Pomales A (2014) Analytical Toxicology Laboratory Manual for TOX 416 (5^{th} Edition)
- Cheng SY, Eng B, and Pomales A (2014) Analytical Toxicology Laboratory Manual for FOS 725 (5^{th} Edition)

- Cheng SY, Eng B, and Pomales A (2013) Forensic Pharmacology Laboratory Manual for TOX 415 (5^{th} Edition)
- Cheng SY, Eng B, and Pomales A (2013) Forensic Toxicology Laboratory Manual for FOS 726 (5^{th} Edition)

MENTORED STUDENTS

* still in school

- **Graduated:**

3 High school students: Nick Simone (Holy Cross High School, Queens, NY), Annie Wang (Bronx Science High School, Bronx, NY), Katalin Torok (Rachel Carson High School, Brooklyn, NY)

25 Undergraduate students: Jason Quinones, Carlos Cuellar, Arlene Maynard, Cindi-Ann Williams, Eugene Gonzalez-Lopez, Ying (Jessika) Lin, Justin Walters, Konrad Ornatowski, Ayaka Yamada, Milena Seecoomar, Anna Stoll, Jessica Montalvo, Alyssa Calderone, Natasha Dalton, Christine Ta, Amy Tang, Yessenia Lopez, Jiwon Seo, Jazlene Montes, Malvina Metodieva, Elaine Yuen, Ahmad Khan. Veronika Yakovishina, Rabia Javed, and Ji-Young Lee

9 Graduate students: Eugene Gonzelaz-Lopez, Marcela Velasco-Lopez, Seon Oh, Shari Maltz, Janelle Frenyea, Teeshavi Narayne, Christopher Kluge, Theron Ng-A-Qui, and Brooke Nielsen.

MS FOS THESIS

- ✓ Brooke Nielsen (2018) Δ-9-THC effect on the dopamine transporter.
- ✓ Theron Ng-A-Qui (2017) Detection of cathinone and mephedrone in plasma by LC-MS/MS using standard addition quantification technique.
- ✓ Gonzalez-Lopez E (2014) The Mechanism of Potentiation Effects of Dithiocarbamates on 1-Methyl-4-phenylpyridinium (MPP^+)-Induced PC12 Cytotoxicity: the Role of Microtubule.
- ✓ Kluge C (2013) Potentiation effects of zinc containing dithiocarbamates on 1-methyl-4-phenylpyridinium (MPP^+) induced cytotoxicity.
- ✓ Narayne T (2013) ICP-MS analysis of dithiocarbamate compounds in PC12 cells.
- ✓ Frenyea JF (2012) The role of pokeweed antiviral protein isoforms on bacterial growth.
- ✓ Maltz S (2012) Purification and characterization of pokeweed antiviral protein from seeds (PAP-S): temperature and salt effects on mRNA recognition.
- ✓ Oh S (2011) The role of RTP801 in maneb- and mancozeb-induced cytotoxicity.

- ✓ Velasco-Lopez MI (2011) Toxicity of maneb and mancozeb pesticides contributing to rat pheochromocytoma cellular death and the potential neuroprotective effects of polyphenols against these Insults.

- **Currently:**

  2 High school students: Jonathan Gideon (Francis Lewis High School, Queens, NY); Jonathan Mulligan (Francis Lewis High School, Queens, NY)
  9 Undergraduate students: Anayatzinc Varga, Maggie Zheng, Brittany Galante, Hakjoo Kim, Marian Romaine, Ying Yin Lu, Wendoline Vasquez, David Hernandez, and Marjorie Grey
  1 Graduate student: Christina Hui

F. SERVICES

Department

Chair (2018-Present)
Interim Chair (2017-2018)
Deputy Chair (2015 – 2017)
- Assist Chair
- Assist Pedagogy workshop

Toxicology major coordinator (2017 - Present)
- Advise students
- Proposal new courses and schedule courses

Toxicology major committee (2012 - 2016)
- Discuss the issues about developing new Toxicology major
- Prepare the curriculum proposal of new Toxicology major

Biology minor and major committee (2011 - 2014)
- Discuss the issues about developing new Biology minor/Cellular and Molecular Biology major
- Propose the new courses for Biology minor/major
- Prepare the letter of intent (LOI) for Cell and Molecular Biology major (under college wide Curriculum Committee discussion)

New faculty/personnel search committee (2011 - Present)
- Biochemistry faculty search (committee member)
- Senior chief laboratory technician search (committee member)
- Toxicology faculty search (committee member)
- Computational biologist/Epidemiologist (committee member)

- Chief laboratory technician (committee member)

MS FOS outcomes assessment committee (2009 - Present)

- Plan and conduct the annual outcomes assessment
- Compile and analyze the assessment data and compose the annual assessment report
- Collect course syllabi (new template)
- Set up and implement alumni survey and employer survey

Representative for Council of Undergraduate FOS Major Coordinator (2009 - Present)

- Discuss the issues about FOS Major
- Perform the tasks of outcomes assessment

MS FOS Academic advisor (2009-2016)

- Advise MS FOS Toxicology track students every semester

Departmental curriculum committee (2009 - 2016)

- Discuss new course proposals or revised course proposals
- Discuss new majors: Cell and Molecular Biology, Toxicology, and Chemistry
- Discuss issues related with courses

Departmental equipment committee (2009 - 2010)

- Discuss the use and purchase of departmental equipment

Undergraduate outcomes assessment committee (2008 - Present).

- Plan and conduct annual outcomes assessment for capstone course and core courses
- Compile and analyze the assessment data and compose the annual assessment report
- Collect course syllabi (new template)

College

Search committee for Academic assessment Manager --- (2012 -2013)

- Reviewed the applicants' packages

Admission committee for Undergraduate Honor Program (2010 - 2012)

- Interview the applicants

Middle state workgroup I (2010 - 2012)

- Research and discuss the assigned question for John Jay Self Study of the Middle States Association of Colleges and Schools

Undergraduate Honor Program committee, (2010 - 2012)

- Discuss the issues about Undergraduate Honor Program --- admission and courses

College Council (2009 - 2013)

Faculty senate (2009 - 2013)

University

Committee on Student Service at Graduate Center, CUNY (2010 - 2018)

- Discuss the student's issues with Ph.D. programs and MS programs
- Set up student's mentor experience survey, Ph.D. student experience survey and MS student experience survey
- Discuss the survey data and plan the events to improve the student experiences at The Graduate Center of City University of New York

National

Committees of Society of Toxicology (SOT)

- Undergraduate Work Group — Networking 2010 - Present
- Undergraduate Education Subcommittee 2013 – 2016
  - ✓ Encourage toxicologists to development of workshops and informational sessions for undergraduate educators
  - ✓ Obtain input directly from undergraduates as to what would attract them to graduate school and/or careers in toxicology --- Survey of student perception of needs related to toxicology education

G. PROFESSIONAL ACTIVITIES

Manuscript reviewer

- Forensic Science Journal 2014 – Present
- Journal of pediatric biochemistry 2011 - Present
- Toxicology and industrial health 2013 – Present
- Journal of alcoholism and drug dependence (2013 - Present)
- Journal of pediatric biochemistry (2011 - Present)
- Oncology Letter (2016 – Present)
- Yale University Press (2014 – Present) --- book review
- International Journal of Oncology (2017 – Present)

Grant reviewer

- John Jay College of Criminal Justice Seed Money (Office for the Advancement of Research) funding 2014 -- Present
- Parkinson's UK (the Parkinson's Disease Society of the United Kingdom) grant proposal 2013 - Present
- PSC CUNY grant proposal 2011 – Present