

Curriculum Vitae

Xuejun Jiang

Contact information

Cell Biology Program, Memorial Sloan-Kettering Cancer Center
1275 York Avenue, mail box 522
New York, NY 10021
Tel: (212) 639-6814
Fax: (212) 794-4342
Email: jiangx@mskcc.org

Education

1986-1990

Bachelor of Science in Biochemistry, Fudan Univ., Shanghai, China

1990-1993

Master of Science in Biochemistry, Fudan Univ., Shanghai, China

1994-1999

Ph.D. degree in Dept. of Pharmacology, Univ. of Texas Southwestern Medical Center

Professional Positions

September 2003-July 2009

Assistant member, Cell Biology Program, Memorial Sloan-Kettering Cancer Center
Assistant Professor, Cornell University Weill Medical College

September 2006-July 2009

Assistant Professor, Gerstner Sloan-Kettering Graduate School

July 2009-present

Associate member, Cell Biology Program, Memorial Sloan-Kettering Cancer Center
Associate Professor, Cornell University Weill Medical College
Associate Professor, Gerstner Sloan-Kettering Graduate School

Research Experiences

September 2003 - present

Faculty at Cell Biology Program, Memorial Sloan-Kettering Cancer Center; Cornell University Weill Medical College

Molecular mechanisms of programmed cell death
Regulation of the tumor suppressor PTEN

October 1999 to August 2003

Postdoctoral fellow with Dr. Xiaodong Wang, Howard Hughes Medical Institute, Dept. of Biochemistry, University of Texas Southwestern Medical Center, Dallas, TX

Biochemical mechanisms of apoptosis

1994-1999

Graduate student seeking a Ph.D. degree, with Dr. Paul C. Sternweis, Dept. of Pharmacology, University of Texas Southwestern Medical Center, Dallas, TX

Signaling of G proteins and phospholipase D

Awards and Honors

2007	Louis and Allston Boyer Young Investigator Award
2007-2010	American Cancer Society Scholar
2006	Catherine and Frederick Adler Chair for junior faculty
2004-2006	V Scholar
2004-2007	Alfred Bressler Scholar
1998	Sigma Xi Award, UT Southwestern
1995-1999	Robert A. Welch Pre-doctoral Fellowship

Intellectual Properties

1. Identification of Factors Which Mediate the Interaction of Heterotrimeric G Proteins and Monomeric G Proteins.
WO/1999/047557

2. Compound and Uses Thereof.
US Patent 20050080102

3. Allosteric Reversible Pan-Caspase Inhibitors
US provisional patent 61/468,324

4. Assay and Markers to Predict Bladder Cancer Response to BCG Treatment
US provisional patent

5. Layered Microfluidic Living Cell Array
US patent application PCT/US12/61229

Publications (total: 50)

Research papers (36):

1. Singer WD, Brown HA, **Jiang X**, Sternweis PC. Regulation of Phospholipase D by Protein Kinase C Is Synergistic with ADP-ribosylation Factor and Independent of Protein Kinase Activity. **J. Biol. Chem.** 1996 (271): 4504-4510. PMID: 8626805

2. Kozasa T, **Jiang X**, Hart MJ, Sternweis PM, Singer WD, Gilman AG, Bollag G, Sternweis PC. p115 RhoGEF, a GTPase Activating Protein for G α 12 and G α 13. **Science** 1998 (280): 2109-2111. PMID: 9641915

3. *Hart MJ, ***Jiang X**, Kozasa T, Roscoe W, Singer WD, Gilman AG, Sternweis PC, Bollag G. Direct Stimulation of the Guanine Nucleotide Exchange Activity of p115 RhoGEF by G α 13. **Science** 1998 (280): 2112-2114. (* **The first two authors contributed equally to the work.**) PMID: 9641916

4. **Jiang X**, Wang X. Cytochrome c Promotes Caspase-9 Activation by Inducing Nucleotide Binding to Apaf-1. **J. Biol. Chem.** 2000 (275): 31199-31203. PMID: 10940292

5. Wells C, **Jiang X**, Gutowski S, Sternweis PC. Functional characterization of p115 RhoGEF. **Methods Enzymol.** 2002 (345): 371-382. PMID: 11665621

6. **Jiang X**, Gutowski S, Singer WD, Sternweis PC. Assays and characterization of mammalian phosphatidylinositol 4,5-bisphosphate-sensitive phospholipase D. **Methods Enzymol.** 2002 (345): 328-334. PMID: 11665616

7. Acehan D, **Jiang X**, Morgan DG, Heuser JE, Wang X, Akey CW. Three-Dimensional Structure of the Apoptosome: Implications for Assembly, Procaspase-9 Binding, and Activation. **Molecular Cell** 2002 (9): 423-432. PMID: 11864614

8. **Jiang X**, Kim H, Shu H, Zhao Y, Zhang H, Kofron J, Donnelly J, Burns D, Ng S, Rosenberg S, Wang X. Distinctive Roles of PHAP Proteins and Prothymosin- α in a

Death Regulatory Pathway. **Science (Research Article)** 2003 (299): 223-226. PMID: 12522243

9. Shao Y, Gao Z, Marks PA, **Jiang X**. Apoptotic and Autophagic Cell Death Induced by Histone Deacetylase Inhibitors. **Proc Natl Acad Sci U S A** 2004 (101) 18030-18035. PMID: PMC539807

10. Ungerstedt JS, Sowa Y, Xu W-S, Shao Y, Perez G, Ngo L, Holmgren A, **Jiang X**, Marks PA. Role of Thioredoxin in the Response of Normal and Transformed Cells to Histone Deacetylase Inhibitors. **Proc Natl Acad Sci U S A** 2005 (102) 673-678. PMID: PMC543461

11. Gao Z, Shao Y, **Jiang X**. Essential Roles of the Bcl-2 Family of Proteins in Caspase-2-Induced Apoptosis. **J. Biol. Chem.** 2005 (280) 38271-38275. PMID: 16162118

12. Yin Q, Park HH, Chung JY, Lin SC, Lo YC, da Graca LS, **Jiang X**, Wu H. Caspase-9 holoenzyme is a specific and optimal pro-caspase-3 processing machine. **Molecular Cell** 2006 (22) 259-268. PMID: PMC2904439

13. Shao Y, Gao Z, Feldman T, **Jiang X**. Stimulation of ATG12-ATG5 conjugation by Ribonucleic Acid. **Autophagy** 2007 (3) 10-16. PMID: 16963840

14. Wang X, Trotman L, Koppie T, Alimonti A, Chen Z, Gao Z, Wang J, Erdjument-Bromage H, Tempst P, Cordon-Cardo C, Pandolfi PP, **Jiang X**. NEDD4-1 is a Proto-Oncogenic Ubiquitin Ligase for PTEN. **Cell** 2007 (128) 129-139. PMID: PMC1828909

15. Trotman LC, Wang X, Alimonti A, Chen Z, Teruya-Feldstein J, Chi S, Kim H, Yang H, Pavletich NP, Carver BS, Erdjument-Bromage H, Tempst P, Cordon-Cardo C, Misteli T, **Jiang X**, Pandolfi PP. Ubiquitination regulates PTEN nuclear import and tumor suppression. **Cell** 2007 (128) 141-156. PMID: PMC1855245

16. Rodina A, Vilenchik M, Moulick K, Aguirre J, Kim J, Chiang A, Litz J, Clement CC, Kang Y, She Y, Wu N, Felts S, Wipf P, Massague J, **Jiang X**, Brodsky JL, Krystal GW, Chiosis G. Selective compounds define Hsp90 as a major inhibitor of apoptosis in small-cell lung cancer. **Nat. Chem. Biol.** 2007 (3) 498-507. PMID: 17603540

17. Gong Y, Somwar R, Politi K, Balak M, Chmielecki J, **Jiang X**, Pao W. Induction of BIM is essential for apoptosis triggered by EGFR kinase inhibitors in mutant EGFR-dependent lung adenocarcinomas. **PLoS Medicine** 2007 (4) e294, 1655-1668. PMID: PMC2001209

18. Gao Z, Tian Y, Wang J, Yin Q, Wu H, Li Y, **Jiang X**. A Dimeric Smac/Diablo Peptide Directly Relieves Caspase-3 Inhibition by XIAP: Dynamic and Cooperative

Regulation of XIAP by Smac/Diablo. **J. Biol. Chem.** 2007 (282) 30718-30727. PMCID: PMC3202417

19. Kim H-E, **Jiang X**, Du F, Wang X. PHAPI, CAS, and Hsp70 Promote Apoptosome Formation by Preventing Apaf-1 Aggregation and Enhancing Nucleotide Exchange on Apaf-1. **Molecular Cell** 2008 (30) 239-247. PMID: 18439902

20. Wang X, Shi Y, Wang J, Huang G, **Jiang X**. Crucial Role of the C-Terminus of PTEN in Antagonizing NEDD4-1-Mediated PTEN Ubiquitination and Degradation. **Biochem. J.** 2008 (414) 221-229. PMID: 18498243

21. Pan W, da Graca, LS, Shao Y, Yin Q, Wu H, **Jiang X**. PHAPI/pp32 Suppresses Tumorigenesis by Stimulating Apoptosis. **J. Biol. Chem.** 2009 (284) 6946-6954. PMCID: PMC2652289

22. Ganley IG, Lam DH, Wang J, Ding X, Chen S, **Jiang X**. ULK1-ATG13-FIP200 Complex Mediates mTOR Signaling and Is Essential for Autophagy. **J. Biol. Chem.** 2009 (284) 12297-12305. PMCID: PMC2673298

23. Gao Z, Gammoh N, Wong P, Erdjument-Bromage H, Tempst P, **Jiang X**. Processing of Autophagic Protein LC3 by the 20S Proteasome. **Autophagy** 2010 (6) 126-137. PMID: 20061800

24. Kwak YD, Wang B, Pan W, Xu H, **Jiang X**, Liao FF. Functional interaction of PTEN with the E3 ligase NEDD4-1 during neuronal response to zinc. **J. Biol. Chem.** 2010 (285) 9847-9857. PMCID: PMC2843233

25. Habrukowich C, Han DK, Le A, Rezaul K, Pan W, Ghosh W, Li Z, Dodge-Kafka K, **Jiang X**, Bittman R, Hla T. Sphingosine Interaction with Acidic Leucine-rich Nuclear Phosphoprotein-32A (ANP32A) regulates PP2A activity and Cyclooxygenase (COX)-2 Expression in Human Endothelial Cells. **J. Biol. Chem.** 2010 (285) 26825-26831. PMID: 20558741. PMCID: PMC2930681

26. Xu D, Yao Y, **Jiang X**, Lu L, Dai W. Regulation of PTEN Stability and Activity by Plk3. **J. Biol. Chem.** 2010 (285) 39935-39942. PMCID: PMC3000975

27. Mesicek J, Lee H, Feldman T, **Jiang X**, Skobeleva A, Berdyshev EV, Haimovitz-Friedman A, Fuks Z, Kolesnick R. Ceramide synthases 2, 5 and 6 confer distinct roles in radiation-induced apoptosis in HeLa Cells. **Cell Signal** 2010 (9) 1300-7. PMID: 20406683

28. Ganley IG, Wong P-M, Gammoh N, **Jiang X**. Distinct Autophagosomal-Lysosomal Fusion Mechanism Revealed by Thapsigargin-Induced Autophagy Arrest. **Molecular Cell** 2011 (42):731-743. PMCID: PMC3124681

29. Wang X, Wang J, and **Jiang X**. MdmX Protein Is Essential for Mdm2 Protein-Mediated p53 Polyubiquitination. **J. Biol. Chem.** 2011 (286) 23725-23734. PMID: 21572037
30. Nair U, Jotwani A, Geng J, Gammoh N, Richerson D, Yen W-L, Griffith J, Nag S, Wang K, Moss T, Baba M, McNew JA, **Jiang X**, Reggiori F, Melia TJ, Klionsky DJ. SNARE Proteins Are Required for Macroautophagy. **Cell** 2011 (146) 290-302. PMCID: PMC3143362
31. Wu K, Yan H, Fang L, Wang X, Pflieger C, **Jiang X**, Huang L, Pan ZQ. Mono-ubiquitination drives nuclear export of the human Dcn1-like protein hDCNL1. **J. Biol. Chem.** 2011 (286) 34060-70. PMCID: PMC3190805
32. Gammoh N, Lam D, Puente C, Ganley IG, Marks PA, **Jiang X**. Role of Autophagy in Histone Deacetylase Inhibitor-Induced Apoptotic and Non-Apoptotic Cell Death. **Proc Natl Acad Sci U S A** 2012 (109) 6561-6565. PMID: 22493260
33. Huang G, Redelman Sidi G, Rosen N, Glickman MS, **Jiang X**. Inhibition of Mycobacterial Infection by the Tumor Suppressor PTEN. **J. Biol. Chem.** 2012 (287) 23196-23202. PMID: 22613768
34. Feldman T, Kabaleeswaran, Jang S, Antczak C, Djaballah H, Wu H, **Jiang X**. A Class of Allosteric Caspase Inhibitors Identified by High-Throughput Screening. **Molecular Cell** 2012 (47) 585-595. PMID: 22795132
35. Dereli-Korkut Z, Gandhok H, Zeng LG, Waqas S, **Jiang X**, Wang S. Real-Time Detection of Cellular Death Receptor-4 Activation by Fluorescence Resonance Energy Transfer. **Biotechnology and Bioengineering** 2012 (accepted)
36. Gammoh N, Florey O, Overholtzer M, & **Jiang X**. Interaction Between FIP200 and ATG16L1 Distinguishes ULK1 Complex-Dependent and -Independent Autophagy. **Nature Structural & Molecular Biology** 2013 (20) 144-149.

Invited Reviews (12):

1. **Jiang X**, Wang X. Cytochrome c-Mediated Apoptosis. **Ann. Rev. Biochem.** 2004 (73) 87-106. PMID: 15596714.
2. Marks PA, **Jiang X**. Histone Deacetylase Inhibitors in Programmed Cell Death and Cancer Therapy. **Cell Cycle** 2005 (4) 549-551. PMID: 15738652.
3. Klionsky DJ et al. Guidelines for the use and interpretation of assays for monitoring autophagy in higher eukaryotes. **Autophagy** 2008 (4) 151-175. PMCID: PMC2654259.
4. Wang X, **Jiang X**. PTEN: a Default Gate-Keeping Tumor Suppressor with a Versatile Tail. **Cell Research** 2008 (18) 807-816. PMID: 18626510.

5. Wang X, **Jiang X**. Post-translational Regulation of PTEN. **Oncogene** 2008 (27) 5454-5463. PMID: 18794880.
6. Ganley IG, Wong P-M, **Jiang X**. Thapsigargin Distinguishes Membrane Fusion in the Late Stages of Endocytosis and Autophagy. **Autophagy** 2011 (7) 1397-1399. PMID: 21921693.
7. Wang X, **Jiang X**. Mdm2 and MdmX partner to regulate p53. **FEBS Lett** 2012 (586) 1390-1396. PMID: 22673503.
8. Gammoh N, Marks PA, **Jiang X**. Curbing Autophagy and Histone Deacetylases to Kill Cancer Cells. **Autophagy** 2012 (8) 1521.
9. Monian P, **Jiang X**. Clearing the Final Hurdles to Mitochondrial Apoptosis: Regulation post Cytochrome c Release. **Exp. Oncol.** 2012 (34) 185-191.
10. Klionsky D et al. Guidelines for the use and interpretation of assays for monitoring autophagy. **Autophagy** 2012 (8) 445-544.
11. Shi Y, Paluch BE, Wang X, **Jiang X**. PTEN at a Glance. **J. Cell Sci.** 2012 (125) 4687-4692.
12. Wong P-M, Puente C, Ganley I, **Jiang X**. The ULK1 Complex: Sensing Nutrient Signals for Autophagy Activation. **Autophagy** 2013 (9)124-137.

Invited Book Chapters (2):

1. Wong P, **Jiang X**. Chapter Title: Signal Transduction Regulation of Autophagy. Book Title: **Autophagy and Cancer**. Publisher: Springer. In press.
2. **Jiang X**. Chapter Title: The Intrinsic Apoptotic Pathway. Book Title: **Cell Death: Mechanism and Disease**. Publisher: Springer. In press.