

Jian-Jian Li, M.D., Ph.D.

Clinical Interests Research interests include the study of the molecular mechanisms causing tumor resistance to radiation and chemotherapy. A tumor resistant signaling network regulated by the transcription factor NF κ B and a group of proteins that translocate to the mitochondrion are being investigated in an array of human cancers including breast, lung, prostate and liver. Additional projects are related to radiation-induced adaptive response in normal tissues and in the radiation-resistant cancer stem cells. The goal of these studies is to find therapeutic targets to enhance cancer cure rates by radiotherapy.

Title Director of Translational Research
Professor

Specialty [Cancer](#), [Radiation Oncology](#)

Department [Radiation Oncology](#)

Division Radiation Oncology

Clinic UC Davis Cancer Center

Center/Program Affiliation [UC Davis Comprehensive Cancer Center](#)

Address/Phone Oak Park Research Center Building, 2700 Stockton Blvd. Suite 1136 Sacramento, CA 95817

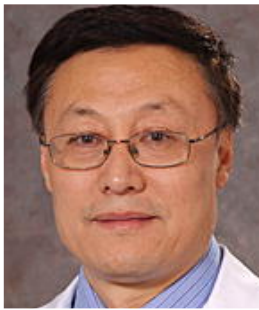
Languages Chinese (Mandarin)

Education M.D., The Fourth Military Medical University, Xi'an, China 1984
Ph.D., Radiation and Free Radical Biology, University of Iowa, Iowa City IA 1994
B.S., Xi'an Medical College, Xi'an, China 1979

Residency Surgery, Xi'an Railway Central Hospital, Xi'an, China 1979-1981

Fellowships Molecular Carcinogenesis, National Institutes of Health, Frederick MD 1994-1998
Radiation Oncology, UC San Francisco, San Francisco CA 1988-1990

Professional Memberships American Association for Cancer Research (AACR)
American Radiation Research Society (RRS)
Association of Free Radical Biology and Medicine (SFRBM)
Association of International Union against Cancer Fellows (UICC)



Jian-Jian Li, M.D., Ph.D.

Honors and Awards

Seed for Success Award of Purdue University Provost Office, 2004
NIH Cancer Research Fellow Award (NIH-CRFA), National Cancer Institute, National Institutes of Health, 1998
NIH Fellows Award for Research Excellence (NIH-FARE), National Cancer Institute, National Institutes of Health, 1996
NIH Intramural Research Training Award (NIH-IRTA), National Cancer Institute, National Institutes of Health, 1995
Recipient of E. Roosevelt International Cancer Research Award by International Union Against Cancer, 1988

Select Recent Publications

To see a complete list of Dr. Li's publications, please [click here](#).

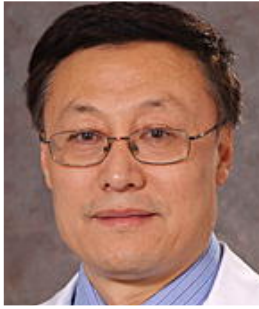
Qin L, Fan M, Candas D, Jiang G, Papadopoulos S, Tian L, Woloschak G, Grdina DJ, Li JJ. CDK1 Enhances Mitochondrial Bioenergetics for Radiation-Induced DNA Repair. *Cell Rep.* 2015 Dec 15; 13(10):2056-63.

Jin C, Qin L, Shi Y, Candas D, Fan M, Lu CL, Vaughan AT, Shen R, Wu LS, Liu R, Li RF, Murley JS, Woloschak G, Grdina DJ, Li JJ. CDK4-mediated MnSOD activation and mitochondrial homeostasis in radioadaptive protection. *Free Radic Biol Med.* 2015 Apr;81:77-87.

Guo L, Xiao Y, Fan M, Li JJ, Wang Y. Profiling global kinome signatures of the radioresistant MCF-7/C6 breast cancer cells using MRM-based targeted proteomics. *J Proteome Res.* 2015 Jan 2;14(1): 193-201.

Lu CL, Qin L, Liu HC, Candas D, Fan M, Li JJ. Tumor cells switch to mitochondrial oxidative phosphorylation under radiation via mTOR-mediated hexokinase II inhibition--a Warburg-reversing effect. *PLoS One.* 2015 Mar 25;10(3):e0121046.

Candas D, Lu CL, Fan M, Chuang FY, Sweeney C, Borowsky AD, Li JJ. Mitochondrial MKP1 is a



Jian-Jian Li, M.D., Ph.D.

target for therapy-resistant HER2-positive breast cancer cells. *Cancer Res.* 2014 Dec 15;74(24):7498-509.

Wang Z, Fan M, Candas D, Zhang TQ, Qin L, Eldridge A, Wachsmann-Hogiu S, Ahmed KM, Chromy BA, Nantajit D, Duru N, He F, Chen M, Finkel T, Weinstein LS, Li JJ. Cyclin B1/Cdk1 coordinates mitochondrial respiration for cell-cycle G2/M progression. *Dev Cell.* 2014 Apr 28;29(2):217-32.

Grdina DJ, Murley JS, Miller RC, Mauceri HJ, Sutton HG, Li JJ, Woloschak GE, Weichselbaum RR. A survivin-associated adaptive response in radiation therapy. *Cancer Res.* 2013 Jul 15;73(14):4418-28.

Candas D, Fan M, Nantajit D, Vaughan AT, Murley JS, Woloschak GE, Grdina DJ, Li JJ. CyclinB1/Cdk1 phosphorylates mitochondrial antioxidant MnSOD in cell adaptive response to radiation stress. *J Mol Cell Biol.* 2013 Jun;5(3):166-75.

Duru N, Fan M, Candas D, Mena C, Liu HC, Nantajit D, Wen Y, Xiao K, Eldridge A, Chromy BA, Li S, Spitz DR, Lam KS, Wicha MS, Li JJ. HER2-associated radioresistance of breast cancer stem cells isolated from HER2-negative breast cancer cells. *Clin Cancer Res.* 2012 Dec 15;18(24):6634-47.

Wang Z, Cao N, Nantajit D, Fan M, Liu Y, Li JJ. Mitogen-activated protein kinase phosphatase-1 represses c-Jun NH2-terminal kinase-mediated apoptosis via NF-kappaB regulation. *J Biol Chem.* 2008 Jul 25;283(30):21011-23.

© 2017 UC Regents