

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME JUNG, Mira Oh	POSITION TITLE Professor		
eRA COMMONS USER NAME mirajung			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Kansas, Lawrence, KS	M.A.	1985	Microbiology/Molecular Virology
University of Kansas, Lawrence, KS	Ph.D.	1990	Microbiology/Molecular Virology

a. Positions and Honors

1984-1987 Research Assistant, University of Kansas, Lawrence, KS
 1987-1988 Teaching Assistant, University of Kansas, Lawrence, KS
 1988-1989 Research Assistant, University of Kansas, Lawrence, KS
 1989-1991 Postdoctoral Fellow, Dept. of Radiation Medicine, Georgetown University, Washington, DC
 1991-1992 Instructor, Dept. of Radiation Medicine, Georgetown University, Washington, DC
 1993-1998 Assistant Professor, Depts. of Radiation Medicine and Microbiology and Immunology, Georgetown University, Washington, DC
 1998-2005 Associate Professor, Depts. of Radiation Medicine and Microbiology and Immunology, Georgetown University, Washington, DC
 2005-present Professor, Depts. of Radiation Medicine and Microbiology and Immunology, Georgetown University, Washington, DC

b. Selected Peer-Reviewed Publications (Selected, In Chronological Order)

Jung M, Notario V, Dritschilo A. Mutations in the p53 gene in radiation-sensitive and -resistant human squamous carcinoma cells. *Cancer Res* 52:6390-6393, 1992.
Jung M, Dritschilo A, Mark G, Kasid U. Identification of multiple elements within introns 4, 8, and 9 of raf-1 in human normal and tumor cells. *Biochem Biophys Res Commun* 190:462-469, 1993.
Jung M, Kondratyev AD, Dritschilo A. Elongation factor-1 δ is enhanced following exposure to ionizing radiation. *Cancer Res* 54:2541-2543, 1994.
Jung M, Kern FG, Jorgensen TJ, McLeskey SW, Blair OC, Dritschilo A. Fibroblast Growth factor-4 enhanced G₂ arrest and cell survival following ionizing radiation. *Cancer Res* 54:5194-5197, 1994.
Jung M, Zhang Y, Lee SA, Dritschilo A: Correction of radiation sensitivity in ataxia telangiectasia cells by a truncated I κ B- α . *Science* 268:1619-1621, 1995.
 Kondratyev A, Chung K-N, **Jung M**. Identification and characterization of radiation-inducible glycosylated human early response gene. *Cancer Res* 56:1498-1502, 1996.
Jung M, Kondratyev A, Lee SA, Dimtchev A, Dritschilo A. ATM gene product phosphorylates I κ B- α . *Cancer Res* 57: 24-27, 1997.
 Rhim JS, Jin S, **Jung M**, Thraves PJ, Kuettel MR, Webber MM, Hukku B. Malignant transformation of human prostate epithelial cells by N-nitro-N-methylurea. *Cancer Res* 57:576-580, 1997.
 Pang D, Yoo S, Dynan WS, **Jung M**, Dritschilo A. Ku proteins join DNA fragments as shown by atomic force microscopy. *Cancer Res* 57:1412-1415, 1997.
 Ahn CH, Thompson, Hwang MS, Ramsamooj P, Lee SJ, **Jung M**. Rapamycin-induced apoptosis is p53-independent in human prostate carcinoma PC-3 cells. *Int J Onc* 11:1115-1118, 1997.
 Smulson ME, Pang D, **Jung M**, Dimtchev A, Chasovskikh S, Spoonde A, Simbulan-Rosenthal C, Rosenthal D, Yakovlev A, Dritschilo A. Irreversible binding of Poly(ADP)ribose polymerase cleavage product to DNA ends revealed by atomic force microscopy: possible role in apoptosis. *Cancer Res* 58:3495-8, 1998.

- Jung M**, Zhang Y, Dimtchev A, Dritschilo A: Impaired NF- κ B regulation results in ionizing radiation induced apoptosis. *Rad Res* 149:596-601, 1998.
- Lee SJ, Dimtchev A, Lavin MF, Dritschilo A, **Jung M**. A novel signaling pathway to NF- κ B activation induced by ionizing radiation. *Oncogene* 17:1821-1826, 1998.
- Lee SA, Dritschilo A, **Jung M**: Impaired ionizing radiation-induced activation of a nuclear signal essential for phosphorylation of c-Jun by dually phosphorylated c-jun amino-terminal kinases in ataxia telangiectasia fibroblasts. *JBC* 273:32889-32894, 1998.
- Kim GD, Choi YH, Dimtchev A, Jeong SJ, Dritschilo A, **Jung M**. Sensing of ionizing radiation-induced DNA damage by ATM through interaction with histone deacetylase. *J Biol Chem*, 274:31127-31130, 1999.
- Segev DL, Ha TU, Tran TT, Kenneally M, **Jung M**, MacLaughlin DT, Donahoe PK, Maheswaran S. Mullerian inhibiting substance inhibits breast cancer cell growth through an NF- κ B-mediated pathway. *J Biol Chem* 275: 28371-9, 2000.
- Jung M**, Dimtchev A, Zhang Y, Dritschilo A. Express cloning to identify candidate genes involved in prostate carcinogenesis. *Rad Res* 588-570, 2000.
- Lee SA, Dritschilo A, **Jung M**. Role of ATM in oxidative stress-mediated c-jun phosphorylation in response to ionizing radiation and cdcl2. *JBC* 276:11783-11790, 2001.
- Zhang Y, Dimtchev A, Dritschilo A, **Jung M**. Ionizing radiation-induced apoptosis in ataxia telangiectasia: Roles of caspase-9 activation and cellular inhibitor of apoptosis protein-1. *J Biol Chem* 276:28842-8, 2001.
- Trofimava I, Dimtchev A, **Jung M**, Rosenthal D, Smulson M, Dritschilo A, Soldatenkov VA. Gene therapy for prostate cancer by targeting poly(ADP)-ribose polymerase. *Cancer Res* 62:6879-6883, 2002.
- Sommer S Buzin CH, **Jung M**, Zheng J, Liu Q, Jeong SJ, Moulds J, Nguyen VQ, Feng J, Bennett WP, Dritschilo A. Elevated frequency of ATM gene mutations in breast cancer relative to ethnically matched controls. *Cancer Genet Cytogen* 134:25-32, 2002.
- Kim BY, Gaynor RB, Song K, Dritschilo A, **Jung M**. Constitutive activation of NF- κ B in Ki-ras-transformed prostate epithelial cells. *Oncogene* 21:4490-4497, 2002.
- Zhang Y, Dimtchev A, Subramanian M, Dritschilo A, **Jung M**. Interstitial gene delivery system for human xenograft prostate using Geneseed, *Proc. Aer. Assoc. Cancer Res* 44(3), 1262, 2003.
- Kim TY, Jong HS, Song SH, Dimtchev A, Jeong SJ, **Jung M**, Bang YJ. Transcriptional silencing of the DLC-1 tumor suppressor gene by epigenetic mechanism in gastric cancer cells. *Oncogene* 22:3943-3951, 2003.
- Kim KM, Zhang Y, Kim BY, Jeong SJ, Lee SA, Kim GD, Dritschilo A, **Jung M**. The p65 subunit of nuclear factor-kappaB is a molecular target for radiation sensitization of human squamous carcinoma cells. *Mol Cancer Ther* 3:693-698, 2004.
- Zhang Y, Jung M, Dritschilo A, **Jung MO**. Enhancement of radiation sensitivity of human squamous carcinoma cells by histone deacetylase inhibitors. *Rad Res* 161:667-674, 2004.
- Jung M, Zhang Y, Dimtchev A, Subramanian MR, Suthanthiran K, **Dritschilo A**. Interstitial gene delivery in human xenograft prostate tumors using titanium metal seeds. *Mol Cancer Ther* 3:655-659, 2004.
- Bakin RE, **Jung MO**. Cytoplasmic sequestration of HDAC7 from mitochondrial and nuclear compartments upon initiation of apoptosis. *J Biol Chem*. 279:51218-51225, 2004.
- Spruessel A, Steimann G, **Jung M**, Lee SA, Carr T, Fentz AK, Spangenberg J, Zornig C, Juhl HH, David KA Tissue ischemia time affects gene and protein expression patterns within minutes following surgical tumor excision. *Biotechnologies* 36:1030-1037, 2004.
- Chen B, Petukhov PA, **Jung M**, Velena A, Eliseeva E, Dritschilo A, Kozikowski AP. Chemistry and biology of mercaptoacetamides as novel histone deacetylase inhibitors. *Bioorg Med Chem Let* 15:1389-1392, 2005.
- Espinoza L, Valikhani M, Cossio M, Carr T, **Jung M**, Hyde J, Witten M, Smulson M. Altered expression of γ -synuclein and detoxification-related genes in lungs of rats exposed to JP-8. *A J Resp Cell Mol Bio* 32:192-0, 2005.
- Jung M**, Velena A, Chen B, Petukhov PA, Kozikowski AP, Dritschilo A. Novel HDAC inhibitors with radiosensitizing properties. *Radiat Res*, 163:488-493, 2005.
- Kim BY, Kim KA, Kwon O, Kim SO, Kim MS, Kim BS, Oh WK, Kim KD, **Jung M**, Ahn JS. NF- κ B inhibition radiosensitizes Ki-Ras-transformed cells to ionizing radiation. *Carcinogenesis*, 26:1395-1403, 2005.
- Jung M**, Kozikowski A, Dritschilo A. Rational design and development of radiation-sensitizing histone deacetylase inhibitors. *Chemistry and Biodiversity*, 2:1452-1461, 2005.

Principal Investigator/Program Director (Last, First, Middle):

Mewani RR, Tian S, Li B, Danner MT, Carr TD, Lee S, Rahman A, Kasid UN, **Jung M**, Dritschilo A, Gokhale PC. Gene expression profile by inhibiting Raf-1 protein kinase in breast cancer cells. *Int J Mol Med*. 17(3):457-63, 2006.

Kwon O, Kim KA, Kim SO, Ha R, Oh WK, Kim MS, Kim HS, Kim KD, Kim JW, **Jung M**, Kim CH, Ahn JS, Kim BY. NF- κ B inhibition increases chemosensitivity to trichostatin A-induced cell death of Ki-Ras-transformed human prostate epithelial cells. *Carcinogenesis*. 2006 Jun 14; [Epub ahead of print].