

## ***CURRICULUM VITAE***

**Name** Benjamin Ping-Chi Chen, Ph.D.

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### **Education**

1983 - 1987 B.S., Dept. Entomology, National Taiwan University, Taipei, Taiwan.  
1989 - 1991 Dept. Entomology, the Ohio State University, Columbus, OH.  
1991 - 1996 Ph.D., Ohio State Biochemistry Program, the Ohio State University, Columbus, OH.

### **Academic Appointment**

1990-1996 Teaching/Research Assistant, the Ohio State University  
1996-1997 Postdoctoral Fellow, School of Medicine, UC San Diego  
1997-1998 Postdoctoral Fellow, Dept. Bioengineering, UC San Diego  
1998-2001 Assistant Project Scientist, Dept. Bioengineering, UC San Diego  
2001-2004 Biology Scientist, Life Sciences Division, Lawrence Berkeley Laboratory  
2004-2012 Assistant Professor with Tenure, Dept. Radiation Oncology, UT Southwestern  
2012-present Associate Professor, Dept. Radiation Oncology, UT Southwestern  
2005-present Member of the Harold C. Simmons Cancer Center, UT Southwestern  
2007-present Member of the Graduate Faculty in Integrative Biology, UT Southwestern  
2012-present Member of the Graduate Faculty in Cancer Biology, UT Southwestern

### **Military Service**

1987-1989 Corporal, Physician Assistant, Army, Taiwan, Republic of China

### **Award and Honor**

FY2010 JSPS Invitation Fellowship Program for Research in Japan (Short-term)

### **Membership in Professional Organizations**

2002-presence Member of Radiation Research Society  
2005-presence American Association for the Advancement of Science  
2008-presence Member of Society for Chinese Bioscientists in America  
2010-presence Member of The American Society for Biochemistry and Molecular Biology  
2014-presence Member of American Association for Cancer Research

### **Patent**

United States Patent 7491804. Title "DNA dependent protein kinase catalytic subunit phosphorylation sites and antibodies thereto".

### **Certification**

Certification for mouse/rat transgenic techniques (August 5, 1998), issued by Animal Technology Institute Taiwan (formerly Pig Research Institute Taiwan).

### **Teaching Experience**

2006-present Radiation Biology course for Residents, 2 lectures per year.  
2006-2011 UTSW Graduate School of Biomedical Sciences. Literature Critiques & Discussion in Genetics, 4-5 sections per year.  
2012-2013 UTSW Graduate School of Biomedical Sciences "RESPONSES TO STRESS" one lecture.

2014- Organized for "RESPONSES TO STRESS" lecture series for UTSW Graduate School of Biomedical Sciences Program.

### **Consulting**

2016- Vertex Pharmaceuticals

### **Active Grant Support**

CPRIT, RP160268, 3/1/16-2/28/19 (PI: Yi, Liu)

Project Title: DNA damage-induced small non-coding RNAs: mechanism and their role in cancer development.

Role: Co-Principal Investigator

NIH, NCI, 1R01CA166677-01, 04/1/12-03/31/17

Project Title: DNA-PKcs Phosphorylation on Hematopoietic Stem Cells Genome Maintenance

Role: Principal Investigator

CRPIT, RP110465-P1, 7/1/11-6/30/16 (PI: Chen, David J.)

Title: P1: Impact of DNA-PKcs Phosphorylation at T2609 Cluster on Pathway Choice for DNA Double-Strand Break Repair and Tumorigenesis.

Role: Principal Investigator of Project 1

CRPIT, RP110465-C2, 7/1/11-6/30/16 (PI: Alexandrakis, Georgios)

Title: C2: Live Cell Imaging Core

Role: Co-Investigator

### **Completed Grant Support**

NASA, NNX12AB55G, 11/10/11-11/9/15 (PI: Eisch, Amelia)

Title: Molecular and Cellular Mechanisms of Space Radiation-Induced Changes in Hippocampal-Dependent Behavior.

Role: Co-Investigator

DOD, W81XWH-11-1-0270-01, 07/01/11-06/30/14 (PI: Saha, Debabrata)

Title: Enhancement of Radiation Therapy in Prostate Cancer by DNA-PKcs inhibitor

Role: Co-Principal Investigator

Pfizer Pharmaceuticals, 10/10/10-12/31/11 (PI: Saha, Debabrata)

Title: Radiosensitization of NSCLC cells with c-MET amplification and EML4-ALK fusion by PF-02341066

Role: Co-Principal Investigator

NIH, R37CA050519-21, 1/1/08-12/31/11 (PI: Chen, David J.)

Title: Roles of DNA-PK in DNA Double Strand Break Repair

Role: Co-Principal Investigator

NASA, NNX07AP84G, 09/1/2007-8/31/2011

Title: The Impact of HZE Particles on Adult Neural Stem Cells and Neurogenesis.

Role: Principal Investigator (Co-PI: Eisch, Amelia)

NIH, MERIT award, R37-CA050519, 10/1/2004-12/31/2007 (PI: Chen, David J.)

Title: Roles of DNA-PKcs in DNA Double Strand Break Repair

Role: Co-Principal Investigator

NIH, R01-CA086936, 5/28/2002 - 3/31/2007 (PI: Chen, David J.)

Title: Transgenic Mouse Models: DNA Damage Sensing and Signaling

Role: Co-Investigator

NIH, RFA PAR-05-060, 9/16/2005 - 9/15/2006

Title: Screening of DNA-PKcs Autophosphorylation Blockers via Cell-Based Approach.

Role: Principle Investigator

NIH, R01HL62747-01A1, 2/8/2000-1/31/2004 (PI: Chien, Shu)

Title: Mechanisms of Reperfusion Induction of ROS and IKK

Role: Co-Investigator

NIH, R01 HL64382-01, 9/28/1999-8/31/2004 (PI: Chien, Shu)

Title: Molecular Basis of Endothelial Remodeling by Flow

Role: Co-Investigator

### **Ad-Hoc Grant Reviewer**

1. Pennsylvania Department of Health for the Pennsylvania Final Performance Review. 2006-2012.
2. The Open Programme (TOP) Proposal Review, The Netherlands Organization for Health Research and Development (ZonMw), 2006.
3. Association for International Cancer Research (AICR), 2008.
4. NASA postdoctoral program, Oak Ridge Associated Universities (ORAU), 2011.
5. Research Grant Council (RGC) of Hong Kong, 2012-15.
6. NASA Space Radiobiology peer review panel, 2012-15.
7. Worldwide Cancer Research (previously AICR), 2015.
8. Florida Department of Health Biomedical Research Programs, 2015.

### **Editorial Board**

1. Guest editor for Translational Cancer Research special review issue Vol 2, No 3 (June 2013) on "DNA double-stranded break (DSB) repair and Cancer".

### **Ad-Hoc Journal Reviewer:**

Antioxidants and Redox Signaling, BBA - Molecular Cell Research, BBA - General Subjects, Blood, Cancer Chemotherapy and Pharmacology, Cancer Research, Carcinogenesis, Cell Biology & Toxicology, Cell Cycle, Cell Death & Disease, Cell Research, Current Biology, DNA Repair, Free Radical Biology & Medicine, Human Molecular Genetics, International Journal of Hyperthermia, International Journal of Molecular Sciences, International Journal of Radiation Oncology Biology Physics, Journal of Biological Chemistry, Journal of Cell Biology, Journal of Cell Physiology, Journal of Cell Science, Journal of Investigative Dermatology, Journal of Molecular Cell Biology, Journal of Molecular Biology, Journal of Proteome Research, Journal of Visualized Experiments, Life Sciences in Space Research, Molecular Biology of the Cell, Molecular Cancer, Molecular Cancer Research, Molecular Cellular Biochemistry, Mutagenesis, Nature Communication, Neuroscience Letters, Nucleic Acids Research, Oncogene, Oncotarget, PLoS One, Radiation and Oncology, Radiation Research, Science Translational Medicine, Scientific Reports, Translational Cancer Research.

### **Invited Lectures at National or International Conferences**

1. The First International Conference on Frontiers in Biomedical and Environmental Health Sciences from Molecular and Systems Biology to Human Diseases, Wuhan, China, 2006.
2. International Workshop on Ataxia-Telangiectasia (A-T) and ATM. Banff, Canada, 2006.
3. 10th International Wolfsberg Meeting, Wolfsberg, Switzerland, 2007.
4. 9th Annual Midwest DNA Repair Symposium, Columbus, OH, 2007.
5. EMS 38th Annual Meeting, Atlanta, GA, 2007.
6. 2nd International Conference on Frontiers in Biomedical and Environmental Health Sciences: DNA Repair and Cancer Biology, Hangzhou, China, 2008.
7. Gordon Research Conference: Mammalian DNA Repair, Ventura, CA, 2009.
8. 12<sup>th</sup> Society of Chinese Bioscientists in America (SCBA) International Symposium, Academia Sinica, Taipei, Taiwan, 2009.
9. 55<sup>th</sup> Annual Meeting of the Radiation Research Society, Savannah, GA, 2009.
10. The International Conference on Biomedical and Environmental Sciences & Technology: DNA Repair and Cancer Intervention (icBEST). Beijing, China, 2010.
11. The International Ataxia-Telangiectasia Workshop 2010, Redondo Beach, CA, 2010.

12. Twenty-second Annual Fanconi Anemia Research Fund Scientific Symposium, Minneapolis, MN, 2010.
13. International Symposium for Radiation research and Medical Physics, Shanghai, China, 2011.
14. 22nd Annual NASA Space Radiation Investigators' Workshop, League City, TX, 2011.
15. 14th International Workshop on Ataxia-Telangiectasia, Delhi, India, 2012.
16. International Conference on Biomedical and Environmental Sciences & Technology, icBEST 2012, Guangzhou, China, 2012.
17. 58<sup>th</sup> Annual Meeting of the Radiation Research Society, San Juan, Puerto Rico, 2012.
18. 3rd Asian Conference on Environmental Mutagens (ACEM), Hangzhou, China, 2012.
19. International Symposium on Radiation Science 2013, Taipei, Taiwan, 2013.
20. UTSW-NTU (National Taiwan University) Jointer Symposium-Frontier of Biological Sciences, Taipei, Taiwan, 2014.
21. The 2nd Global Chinese Congress of Radiation Research (GCCRR2014), Suzhou, China, 2014.
22. The 5<sup>th</sup> International Conference on Frontiers in Biomedical and Environmental Health (icBEST 2014) and the 5th International Symposium on DNA Damage Response & Human Disease (isDDRHD-2014), Beijing, China, 2014. Title: M Phase Leading Strand Telomere DNA Deprotection Caused by Mutations at DNA-PKcs Phosphorylation Sites.
23. 2nd Annual Prostate Cancer Symposium & Poster Session: Targeting Lethal Disease, UT Southwestern Harold C. Simmons Cancer Center, Dallas, TX, 2014. Title: DNA-PKcs is a critical regulator of mitosis transition.
24. The 14th International Wolfsberg Meeting, Wolfsberg, Switzerland, 2015. Title: Distinctive mechanisms of DNA-PKcs on telomere capping and protection.
25. The 6<sup>th</sup> International Conference on Biomedical and Environmental Sciences & Technology (icBEST-2016), Chengdu, China, 2016. Title: Ku independent recruitment of DNA-PKcs to stalled replication fork and modulation of the ATR signaling.

### **Seminar Invitations**

1. National Yang-Ming University, Taipei, Taiwan, 2005.
2. National Health Research Institutes, Zhunan, Taiwan, 2005.
3. New faculty forum, UT Southwestern Medical Center, Dallas, TX, 2006.
4. Pathology Grand Rounds, University of Iowa, Iowa City, IA, 2006.
5. Stowers Institute, Kansas City, Kansas City, 2007.
6. Molecular and Tumor Biology Interest Group, UT Southwestern, Dallas, TX, 2008.
7. Department of Radiation Oncology, National Taiwan University Hospital, Taipei, Taiwan, 2008.
8. Beijing Institute of Radiation Medicine, Beijing, China, 2009.
9. Institute of Zoology, Chinese Academy of Sciences, Beijing, China, 2009.
10. Prostate Cancer Working Group Lecture, UT Southwestern, Dallas, TX, 2009.
11. Department of Biology, National Taiwan Normal University, Taipei, Taiwan, 2010.
12. Beijing Institute of Genomics, Chinese Academy of Sciences, Beijing, China, 2010.
13. Annual Retreat of Cancer Therapy & Research Center (CTRC), U. Texas Health Science Center at San Antonio, San Antonio, TX, 2010.
14. JSPS Invitation Fellowship Program for Research in Japan (Short-term), 2010. Seminars were given at the following Institutions: Tottori University; Bioelectrics Research Center, Kumamoto University; Global Strategic Center for Radiation Health Risk Control, Nagasaki University; Research Institute for Radiation Biology and Medicine, Hiroshima University; Radiation Biology Center, Kyoto University; Department of Pediatrics and Developmental Biology, Tokyo Medical and Dental University; National Institute of Radiological Sciences (NIRS); Research Laboratory for Nuclear Reactors, Tokyo Institute of Technology.
15. Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou, China, 2011.
16. National Health Research Institutes, Zhunan, Taiwan, 2011.
17. Department of Molecular, Cellular and Developmental Biology, University of California Santa Barbara, Santa Barbara, CA, 2011.
18. Department of Biochemistry, Vanderbilt University, Nashville, TN, 2012.
19. Developmental and Stem Cell Institute, Sichuan University, Chengdu, China, 2012.
20. Cancer Center, Daping Hospital and Research Institute of Surgery, Third Military Medical University, Chongqing, China, 2012.
21. Institute of Biochemical Sciences, National Taiwan University, Taipei, Taiwan, 2012.
22. Medical Scientist Training Program (MSTP), UT Southwestern, Dallas, TX, 2012.

23. Institute of Medical Science, Shanghai JiaoTong University School of Medicine, Shanghai, China, 2012.
24. Department of Multidisciplinary Internal Medicine, Tottori University, Yonago, Japan, 2013.
25. Prostate Cancer Working Group Lecture, UT Southwestern, Dallas, TX, 2014.
26. Hamon Center Lab Conference, UT Southwestern, Dallas, TX, 2014.

## Publications

1. Kaszubska W, Hooft van Huijsduijnen R, Ghersa P, DeRaemy-Schenk AM, **Chen BP**, Hai T, DeLamarer JF, Whelan J. (1993) Cyclic AMP-independent ATF family members interact with NF-kB and function in the activation of the E-selectin promoter in Response to cytokine. *Mol. Cell. Biol.* 13: 7180-7190.
2. **Chen BP**, Hai T. (1994) Expression vector for affinity purification and radiolabeling of proteins using *Escherichia coli* as host. *Gene* 139:73-75.
3. **Chen BP**, Liang G, Hai T. (1994) ATF3 and ATF3 $\Delta$ zip: Transcriptional repression versus activation by alternatively spliced isoforms. *J. Biol. Chem.* 269: 15819-15826.
4. **Chen BP**, Wolfgang CD, Hai T. (1996) Analysis of ATF3: A transcription factor induced by physiological stresses and modulated by gadd153/Chop10. *Mol. Cell. Biol.* 16: 1157-1168.
5. Liang G, Wolfgang CD, **Chen BP**, Chen TH, Hai T. (1996) ATF3 Gene Genomic Organization, Promoter, and Regulation. *J. Biol. Chem.* 271: 1695-1701.
6. Wolfgang CD, **Chen BP**, Martindale JL, Holbrook NJ, Hai T. (1997) Gadd153/Chop10, a potential target gene of the transcriptional repressor ATF3. *Mol. Cell. Biol.* 17: 6700-6707.
7. Li S, **Chen BP**, Azuma N, Hu YL, Wu SZ, Sumpio BE, Shyy JY, Chien S. (1999) Distinct roles for the small GTPases Cdc42 and Rho in endothelial responses to shear stress. *J. Clin. Invest.* 103: 1141-1150.
8. Lin K, Hsu PP, **Chen BP**, Yuan S, Usami S, Shyy JY, Li YS, Chien S. (2000) Molecular Mechanism of Endothelial Growth Arrest by Laminar Shear Stress. *Proc Natl Acad Sci U S A.* 97: 9385-9389.
9. **Chen BP**, Li YS, Zhao Y, Chen KD, Li S, Lao J, Yuan S, Shyy JY, Chien S. (2001) DNA Microarray Analysis of Gene Expression in Endothelial Cells in Response to 24-hour Shear Stress. *Physiol Genomics* 7:55-63.
10. Burma S, **Chen BP**, Murphy M, Kurimasa A, and Chen DJ. (2001) ATM Phosphorylates Histone H2AX in Response to DNA Double-strand Breaks. *J. Biol. Chem.* 276: 42462-42467.
11. Liu Y, **Chen BP**, Lu M, Zhu Y, Stemerman MB, Chien S, Shyy JY. (2002) Shear Stress Activation of SREBP1 in endothelial cells is mediated by integrins. *Arterioscler. Thromb. Vasc. Biol.* 22: 76-81. (YL and **BPC** equal contribution).
12. Miao H, Li S, Hu YL, Yuan S, Zhao Y, **Chen BP**, Puzon-McLaughlin W, Tarui T, Shyy JY, Takada Y, Usami S, Chien S. (2002) Differential regulation of Rho GTPases by beta1 and beta3 integrins: the role of an extracellular domain of integrin in intracellular signaling. *J. Cell Sci* 115: 2199-2206.
13. Chan DW, **Chen BP**, Prithivirajasingh S, Kurimasa A, Story MD, Qin J, Chen DJ. (2002) Autophosphorylation of the DNA-dependent protein kinase catalytic subunit is required for rejoining of DNA double-strand breaks. *Gene & Dev.* 16:2333-2338. (DWC and **BPC** equal contribution).
14. Zhao Y, **Chen BP**, Miao H, Yuan S, Li YS, Hu Y, Rocke DM, Chien S. (2002) Improved Significance for DNA Microarray Data: Temporal Modulation of Endothelial Gene Expression by Shear Stress. *Physiol Genomics* 12:1-11.
15. Li S, Lao J, **Chen BP**, Li YS, Zhao Y, Chu J, Chen KD, Tsou TC, Peck K, Chien S. (2003) Genomic Analysis of Smooth Muscle Cells in Three-Dimensional Collagen Matrix. *FASEB J.* 17:97-9.
16. Zhao J, Bian ZC, Yee K, **Chen BP**, Chien S, Guan JL. (2003) Identification of Transcription Factor KLF8 as a Downstream Target of Focal Adhesion Kinase in Its Regulation of Cyclin D1 and Cell Cycle Progression. *Mol. Cell* 11:1503-15
17. Li S, Moon JJ, Miao H, Jin G, **Chen BP**, Yuan S, Hu Y, Usami S, Chien S. (2003) Signal transduction in matrix contraction and the migration of vascular smooth muscle cells in three-dimensional matrix. *J Vasc Res.* 40:378-88.
18. Wechsler T, **Chen BP**, Harper R, Morotomi-Yano K, Huang BC, Meek K, Cleaver JE, Chen DJ, Wabl M. (2004) DNA-PKcs function regulated specifically by protein phosphatase 5. *Proc Natl Acad Sci U S A.* 101-1247-52.
19. Herbig U, Jobling WA, **Chen BP**, Chen DJ, Sedivy JM. (2004) Telomere Shortening triggers Replication Senescence of Human Cells Through a Signaling Pathway Involving ATM, p53 and p21<sup>CIP1</sup> but not p16<sup>ink4a</sup>. *Mol. Cell* 14:501-13.

20. Luo H, Chan DW, Yang T, Rodriguez M, **Chen BP**, Leng M, Mu JJ, Chen D, Songyang Z, Wang Y, Qin J. (2004) A link between DNA Single Strand Break Repair and Ataxia with Oculomotor Apraxia. *Mol. Cell Biol.* 24: 8356-8365.
21. Lou Z., **Chen BP**, Asaithamby A, Minter-Dykhouse K, Chen DJ, and Chen J. (2004) The H2AX-MDC1 Pathway Regulates DNA-PK Localization and Autophosphorylation in Response to DNA Damage. *J. Biol. Chem.* 279: 46359-62.
22. **Chen BP**, Chan DW, Kobayashi J, Burma S, Asaithamby A, Morotomi-Yano K, Botvinick E, Qin J, Chen DJ. (2005) Cell Cycle Dependence of DNA-PK phosphorylation in Response to DNA Double Strand Breaks. *J. Biol. Chem.* 280: 14709-15. (**BPC** corresponding author).
23. Schwartz M, Zlotorynski E, Goldberg M, Ozeri E, Rahat A, le Sage C, **Chen BP**, Chen DJ, Agami R, Kerem B. (2005) Homologous recombination and non-homologous end joining double-strand break repair pathways regulate fragile site stability. *Gene & Dev.* 19:2715-26.
24. Al Rashid ST, Dellaire G, Cuddihy A, Jalali F, Vaid M, Coackley C, Folkard M, Xu Y, **Chen BP**, Chen DJ, Lilge L, Prise KM, Bazett Jones DP, Bristow RG. (2005) Evidence for the Direct Binding of Phosphorylated p53 to Sites of DNA Breaks In vivo. *Cancer Res.* 65: 10810-21.
25. Mukherjee B, Kessinger C, Kobayashi J, **Chen BP**, Chen DJ, Chatterjee A, Burma S. (2006) DNA-PK phosphorylates Histone H2AX During Apoptosis DNA Fragmentation in Mammalian Cells. *DNA Repair.* 5:575-590.
26. Burma S, **Chen BP**, Chen DJ. (2006) Role of non-homologous end joining (NHEJ) in maintaining genomic integrity. *DNA Repair.* 5: 1042-8. (Review article)
27. Yijima H, Lee KJ, **Chen BP**. (2006) ATR-dependent DNA-PKcs phosphorylation in response to UV-induced replication stress. *Mol. Cell Biol.* 26:7520-8.
28. Fang L, Wang Y, Du D, Yang G, Tak Kwok T, Kai Kong S, **Chen B**, Chen DJ, Chen Z. (2007) Cell polarity protein Par3 complexes with DNA-PK via Ku70 and regulates DNA double-strand break repair. *Cell Research.* 17:100-116.
29. **Chen BP**, Uematsu N, Kobayashi J, Lerenthal Y, Krempler A, Yajima H, Löbrich M, Shiloh Y, Chen DJ. (2007) ATM is essential for phosphorylation of DNA-PKcs at T2609 cluster upon DNA double strand break. *J. Biol. Chem.* 282: 6582-6587.
30. Uematsu N, Weterings E, Yano K, Morotomi-Yano K, Jakob B, Taucher-Scholz G, Mari PO, van Gent DC, **Chen BP**, Chen DJ. (2007) Autophosphorylation of DNA-PKcs regulates its dynamics at DNA double-strand breaks. *J. Cell Biol.* 177:219-29.
31. Das AK, **Chen BP**, Story MD, Sato M, Minna JD, Chen DJ, Nirodi CS. (2007) Somatic mutations in the tyrosine kinase domain of EGFR abrogate EGFR-mediated radio-protection in non-small cell lung carcinoma. *Cancer Res.* 67: 5267-74.
32. Kodym E, Kodym R, **Chen BP**, Chen DJ, Morotomi-Yano K, Choy H, Saha D. (2007) DNA-PKcs Dependent Modulation of Cellular Radiosensitivity by a Selective Cyclooxygenase-2 Inhibitor. *Int. J. Radiation Oncology Biol. Phys.* 69:187-93.
33. Yajima H, Lee KJ, Zhang S, Kobayashi J, **Chen BP**. (2009) DNA Double Strand Break Formation upon UV-Induced Replication Stress Activates ATM and DNA-PKcs Kinases. *J. Mol. Biol.* 385:800-810.
34. Kobayashi J, Tauchi H, **Chen B**, Burma S, Tashiro S, Matsuura S, Tanimoto K, Chen DJ, Komatsu K. (2009) Histone H2AX participates the DNA damage-induced ATM activation through interaction with NBS1. *Biochem Biophys Res Commun.* 380:752-7.
35. Li AY, Boo LM, Wang SY, Lin HH, Wang CC, Yen Y, **Chen BP**, Chen DJ, Ann DK. (2009) Suppression of Non-Homologous End Joining Repair by Overexpression of HMGA2. *Cancer Res.* 69:5699-706.
36. Shrivastav M, Miller CA, De Haro LP, Durant ST, **Chen BP**, Chen DJ, Nickoloff JA. (2009) DNA-PKcs and ATM Co-Regulate DNA Double-Strand Break Repair. *DNA Repair.* 6:920-9.
37. Saha D, Watkins L, Yin Y, Thorpe P, Story MD, Song K, Raghavan P, Timmerman R, **Chen B**, Minna JD, and Solberg TD. (2010) An Orthotopic Lung Tumor Model for Image-Guided Stereotactic Irradiation in Rats. *Radiation Research* 174:62-71.
38. Iosef C, Vilck G, Gkourasas T, Lee KJ, **Chen BP**, Fu P, Bach LA, Lajoie G, Gupta MB, Li SS, Han VK. (2010) Insulin-like growth factor binding protein 6 (IGFBP-6) interacts with DNA-end binding protein Ku80 to regulate cell fate. *Cellular Signalling.* 22:1033-43.
39. Kobayashi J, Okui M, Asaithamby A, Burma S, **Chen BP**, Tanimoto K, Matsuura S, Komatsu K, Chen DJ. (2010) WRN participates in translesion synthesis pathway through interaction with NBS1. *Mechanisms of Ageing and Development.* 131:436-44.

40. Yu X, Wang H, Wang P, **Chen BP**, Wang Y. (2010) The Ku dependent non-homologous end-joining pathway contributes to low dose radiation-stimulated cell survival. *Journal of Cellular Physiology*. 226: 369-374.
41. Nagasawa H, Little JB, Lin YF, So S, Kurimasa A, Peng Y, Brogan JR, Chen DJ, Bedford JS, **Chen BP**. (2011) Differential role of DNA-PKcs phosphorylations and kinase activity in radiosensitivity and spontaneous chromosomal numerical instability. *Radiation Research*. 175: 83-89.
42. Lee KJ, Lin YF, Chou HY, Yajima H, Fattah KR, Lee SC, **Chen BP**. (2011) Involvement of DNA dependent protein kinase in normal cell cycle progression through mitosis. *J. Biol. Chem*. 286: 12796-12802.
43. Zhang S, Yajima H, Huynh H, Zheng J, Callen E, Chen HT, Wong N, Bunting S, Lin YF, Li M, Lee KJ, Story M, Gapud E, Sleckman BP, Nussenzweig A, Zhang CC, Chen DJ, **Chen BP**. (2011) Severe anemia and stem cell failure in DNA-PKcs mutant mice associated with deficiencies in DNA repair. *J. Cell Biol*. 193: 295-305. (**SZ won Radiation Research Society 2010 Marie Curie Award based on this study**)
44. Liu S, Chu J, Yucer N, Leng M, Wang SY, **Chen BP**, Hittelman WN, Wang Y. (2011) RFWD3 Associates with Replication Protein A and Facilitates RPA-Mediated DNA Damage Response. *J. Biol. Chem*. 286: 22314-22.
45. Zheng J, Umikawa M, Zhang S, Huynh H, Silvany R, **Chen BP**, Chen L, Zhang CC. (2011) Ex vivo expanded hematopoietic stem cells overcome the MHC barrier in allogeneic transplantation. *Cell Stem Cell*. 9:119-30.
46. Toulany M, Schickfließ TA, Fattah KR, Lee K, **Chen BP**, Fehrenbacher B, Schaller M, Chen DJ, Rodemann HP. (2011) Function of erbB receptors and DNA-PKcs on phosphorylation of cytoplasmic and nuclear Akt at S473 induced by erbB1 ligand and ionizing radiation. *Radiother Oncol*. 101:140-146.
47. Malewicz M, Kadkhodaei B, Kee N, Volakakis N, Hellman U, Viktorsson K, Leung CY, **Chen B**, Lewensohn R, van Gent DC, Chen DJ, Perlmann T. (2011) Essential role for DNA-PK-mediated phosphorylation of NR4A nuclear orphan receptors in DNA double-strand break repair. *Gene & Dev*. 25:2031–2040.
48. **Chen BP**, Li M, Asaithamby A. (2012) New Insights into the Roles of ATM and DNA-PKcs in the Cellular Response to Oxidative Stress. *Cancer Lett*. 327:103–110. (Review Article)
49. Zhang S, **Chen BP**. (2012) Disablement of DNA-PKcs Phosphorylation Induces Hematopoietic Failure in Mice Through the p53 Signaling Pathway. *Treatment Strategies – Hematology*. 1(2):36-40.
50. Shao L, Feng W, Lee KJ, **Chen BP**, Zhou D. (2012) A sensitive and quantitative polymerase chain reaction-based cell free in vitro non-homologous end joining assay for hematopoietic stem cells. *PLoS One*. 7(3):e33499.
51. Olsen BB, Wang SY, Svenstrup TH, **Chen BP**, Guerra B. (2012) Protein kinase CK2 localizes to sites of DNA double-strand break regulating the cellular response to DNA damage. *BMC Mol. Biol*. 13(1):7.
52. Hsu FM, Zhang SC, **Chen BP**. (2012) Role of DNA-dependent protein kinase catalytic subunit in cancer development and treatment. *Transl Cancer Res*. 1:22-34. (Review Article)
53. Toulany M, Lee KJ, Fattah KR, Lin YF, Fehrenbacher B, Schaller M, **Chen BP**, Chen DJ, Rodemann HP. (2012) Akt promotes post-irradiation survival of human tumor cells through initiation, progression and termination of DNA-PKcs-dependent DNA-double strand break repair. *Mol Cancer Res*. 10:945-57.
54. Javvadi P, Makino H, Das AK, Lin YF, Chen DJ, **Chen BP**, and Nirodi CS. (2012) Threonine 2609 phosphorylation of the DNA-dependent Protein Kinase is a critical prerequisite for epidermal growth factor receptor mediated radiation resistance. *Mol Cancer Res*. 10:1359-68.
55. Tumati V, Kumar S, Yu L, **Chen B**, Choy H, and Saha D. (2013) Effect of PF-02341066 and radiation on non-small cell lung cancer cells. *Oncol Rep*. 29:1094-100.
56. Singh M, Hunt CR, Pandita RK, Kumar R, Yang CR, Horikoshi N, Bachoo R, Sarag S, Story MD, Shay JW, Powell SN, Gupta A, Jeffery J, Pandita S, **Chen BP**, Deckbar D, Löbrich M, Yang Q, Khanna KK, Worman HJ, and Pandita TK. (2013) Lamin A/C Depletion Enhances DNA Damage Induced Stalled Replication Fork Arrest. *Mol. Cell. Biol*. 33:1210-1222.
57. Rocourt CRB, Wu M, **Chen BP**, Cheng WH. (2013) The Catalytic Subunit of DNA-Dependent Protein Kinase is Downstream of ATM and Feeds Forward Oxidative Stress in Selenium-Induced Senescence Response. *J. Nutr. Biochem*. 24:781-7.
58. Zhang X, Lv L, Chen Q, Yuan F, Zhang T, Yang Y, Zhang H, Wang Y, Jia Y, Qian L, **Chen B**, Zhang Y, Friedberg EC, Tang TS, Guo C. (2013) Mouse DNA polymerase kappa has a functional role in the repair of DNA strand breaks. *DNA Repair*. 12:377-88.
59. Liu H, Galka M, Mori E, Liu X, Lin Y, Pittock P, Voss C, Dhami G, Li X, Miyaji M, Lajoie G, **Chen B**, Li S.-C. (2013) A method for systematic mapping of protein lysine methylation identifies new functions for HP1β in DNA damage response. *Mol. Cell*. 50:723-35.

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