

## **CURRICULUM VITAE**

Yuan Chen, Ph.D.

Department of Surgery and Moores Cancer Center, UC San Diego Health, La Jolla, CA 92037.

### **ACADEMIC APPOINTMENTS**

- 2020 – Professor, Moores Cancer Center and Department of Surgery, UC San Diego, La Jolla, California
- 2018 – 2019 Dean of Transdisciplinary Research and member of the Executive Committee of the City of Hope Cancer Center, Beckman Research Institute, City of Hope Medical Center, Duarte, California
- 2005 – 2019 Professor, Beckman Research Institute, City of Hope Medical Center, Duarte, California
- 1994 – 2019 Member, City of Hope Comprehensive Cancer Center, Duarte, California
- 2013 – 2017 Associate Member, University of Hawaii Cancer Center, Honolulu, Hawaii
- 1999 – 2005 Associate Professor, Beckman Research Institute, City of Hope Medical Center, Duarte, California
- 1994 – 1999 Assistant Professor, Beckman Research Institute, City of Hope Medical Center, Duarte, California
- 1992-1993 Postdoctoral Fellow, The Scripps Research Institute, Department of Molecular Biology, La Jolla, California.

### **EDUCATION**

B.S. in Chemistry, University of Science and Technology of China, 1985.

Ph.D. in Biochemistry, Rutgers University, 1992.

### **FUNDING SUPPORT**

#### **Peer-Reviewed Funding as Principal Investigator**

- National Institute of Health (PI: Y. Chen)  
R01 GM086171 4/1/08 – 1/31/21  
SUMO Modification and Cancer Therapy
- National Institute of Health  
R01 CA216987-01A1 (PI: Y. Chen, W. Dai) 6/1/17-5/31/22  
K-Ras Sumoylation in Cell Proliferation and Transformation
- National Institute of Health  
R01 CA212119-01A1 (PI: Y. Chen) 7/1/17-6/30/22  
Targeting c-Myc and Proteasome Inhibitor Resistance in Multiple Myeloma

California Institute of Regenerative Medicine (PI: Y. Chen)  
DISC2-10107 11/1/2017-4/30/2020  
A Novel Approach to Eradicate Cancer Stem Cells

Pancreatic Cancer Action Network (PI: Y. Chen) 7/1/2020-6/30/2022  
Activating Anti-Tumor Immunity by Targeting a Ubl Modification

### **Peer-Reviewed Funding as Co-Investigator**

National Institute of Health (PI: Steven Rosen)  
1R01CA233922-01 12/1/18-11/30/23  
Targeting P38 Gamma Signaling To Advance Cutaneous T Cell Lymphoma Therapy

National Institute of Health (PI: James Turkson)  
1R01CA208851-01A1 3/1/17-2/28/22  
STAT3, G6PD AND TRXR As Underlying Mechanisms For Antitumor Responses To  
Hirsutinolides

### **AWARD**

1993 NIH Postdoctoral Fellowship (declined due to acceptance of the City of Hope position)  
1996 American Cancer Society Junior Faculty Research Award

### **RECENT SERVICES IN SCIENTIFIC COMMUNITIES**

#### **International Communities**

2019 Grant Reviewer, French National Research Agency  
2015-present Grant Reviewer, National Research Foundation of Korea  
2014 Grant Reviewer, Division for Chemical Sciences of the Netherlands Organization  
for Scientific Research  
2015 Reviewer, Global Research Laboratory Program, Korea  
2007-present Grant Reviewer, Natural Sciences and Engineering Research Council of Canada  
2009-2010, Program Co-Chair, Chemical Modulators by Rational Design, Biophysical Society  
Annual Meeting  
2008-2009 Program Co-Chair, Intrinsically Disordered Protein Subgroup, Biophysical Society  
Annual Meeting

#### **Domestic Communities**

2017-2023 Standing member, MSFA study section NIH  
2017- Ad hoc member, NIH CDDT study section  
2018 Ad hoc member ZCA1 SRB-K (O1) NCI Clinical Translational R21 & Omnibus  
R03  
2017 Ad hoc member ZCA1 SRB-K(M1)S National Cancer Institute Special Emphasis  
Panel on druggable genome  
2014-2016 Florida Department of Health Cancer Centers of Excellence evaluation team

2014 NCI Omnibus review on Targeted Delivery, Imaging, Biotechnology  
2013-2016 NIH ZRG1 BMCT-C Study section  
2013 NIH study section ZCA1 SRLB-2 (O1) S National Cancer Institute  
Exploratory/Developmental Research Grant Program  
2007-2011 Standing member, NIH MSFC Study section  
2012 NIH Shared Instrument Review Committee  
2009-2013 External reviewer, Environmental Molecular Science Program, Pacific Northwest  
National Laboratory

### **Within Institution**

2018-2019 Dean of Transdisciplinary Research, Beckman Research Institute/COH  
2018-2019 Executive Committee, City of Hope Cancer Center  
2018-2019 Faculty Senate  
2016 Member, Promotion Committee  
2010-2014 President and Executive Committee, Research Staff Organization, City of Hope  
Medical Center  
2013, 2014 Beckman Symposium Organization Committee  
2014 Chair, Promotion Committee  
2006-2009 Chair, Irell & Manella Graduate School Curriculum Committee  
2003-2009 Irell & Manella Graduate School Oversight Committee

### **RECENT INVITED TALKS (FROM 2012)**

February, 2020 Michigan State University  
April 2019 Rutgers University  
February 2019 University of California, San Diego, School of Medicine  
January 2019 University of California, Irvine, School of Medicine  
October 2018 Fels Institute for Cancer Research & Molecular Biology, Lewis Katz School of  
Medicine at Temple University  
July 2018 Post-translational Regulation of Cell Signaling Conference, Salk Institute  
May 2018 NIH-The Eunice Kennedy Shriver National Institute of Child Health and Human  
Development  
February 2018 The 13th Enzyme in Drug Discovery Summit, San Diego, CA  
November 2017 CSHL meeting, STATs: Importance in Basic & Clinical Cancer Research, New York,  
NY  
February 2017 The 7th Ubiquitin Research and Drug Discovery Conference, San Diego, CA  
October 2016 The International Conference on SUMO, Ubiquitin, UBL Proteins: Implications for  
Human Diseases, Shanghai, China

June 2016 American Chemical Society Middle Atlantic Regional Meeting, New York, NY  
February 2016 The Six Ubiquitin Research and Drug Discovery Conference, San Diego, CA  
December 2015 New York University School of Medicine, New York, NY  
October 2015 Rutgers University, New Brunswick, NJ  
July 2015 Institute of Biomedical Sciences, Academy Sinica, Taipei, Taiwan.  
February 2015 The Fifth Ubiquitin Research and Drug Discovery Conference, San Diego, CA  
January 2015 San Diego State University, San Diego, CA  
February 2014 The Fourth Ubiquitin Research and Drug Discovery Conference, San Diego, CA  
May 2013 International Conference on Molecular Perspectives of Protein-Protein Interactions, Organized by European Science Foundation, Poland  
May 2013 University of Science and Technology of China, China  
February 2013 Amgen, Thousand Oaks  
February 2013 The Third Ubiquitin Research and Drug Discovery Conference, Las Vegas, NV  
January 2013 Yale University, New Haven, CT  
March 2012 GlaxoSmithKline, Philadelphia, PA  
January 2012 Michigan State University  
February 2012 The Six International Conference on SUMO, Ubiquitin, UBL Proteins: Implications for Human Diseases  
February 2012 University of Houston

#### **PEER REVIEWED PUBLICATIONS (a total of 97)**

Du L, Fakih M, Rosen S, **Chen Y**. SUMOylation of E2F1 regulates expression of EZH2. *Cancer Research*, in press.

Li YJ, Du L, Wang J, Vega R, Lee TD, Miao Y, Aldana-Masangkay G, Samuels ER, Li B, Ouyang SX, Colayco SA, Bobkova EV, Divlianska DB, Sergienko E, Chung TDY, Fakih M, **Chen Y**. Covalent Inhibition of Ubiquitin-like Modifications by a Novel Class of Inhibitor of SUMO Activating Enzyme. *Cell Chemical Biology*, 26(2):278-288, 2019.

(Featured: Discovery of a **First-In-Class** Covalent Allosteric Inhibitor of **SUMO** E1 Activating Enzyme. Magin RS, Doherty LM, Buhrlage SJ. *Cell Chemical Biol.* 26(2):153-155, 2019).

Pal SK, Tew BY, Lim M, Stankavich B, He M, Pufall M, Hu W, **Chen Y**, Jones JO. Mechanistic Investigation of the Androgen Receptor DNA-Binding Domain Inhibitor Pyrvinium. *ACS Omega*. 4(2):2472-2481, 2019.

He Z, Zhang J, Huang Z, Du Q, Li N, Zhang Q, **Chen Y**, Sun Z. Sumoylation of ROR $\gamma$ t regulates T<sub>H</sub>17 differentiation and thymocyte development. *Nature Communications*. 9(1):4870, 2018.

Choi BH, Philips MR, **Chen Y**, Lu L, Dai W. K-Ras lysine-42 is crucial for its signaling, cell migration and invasion. *J. Biol. Chem.* 293(45):17574-17581, 2018.

Lv Z, Yuan L, Atkison JH, Williams KM, Vega R, Sessions EH, Divlianska DB, **Chen Y**, & Olsen SK. Structure of SUMO E1/allosteric inhibitor complex reveals a novel strategy for targeting ubiquitin and ubiquitin-like modifier signaling. *Nature Communications*, 9(1):5145, 2018.

Xu Z, Nam S, Wu J, Chen C-H, Liu X, Li H, Mckeithan T, Gong Q, Chan J, Yin H, Yuan Y-C, Pillai R, Querfeld C, Horne D, **Chen Y**, Rosen ST. Multi-kinase inhibitor with anti-p38 $\gamma$  activity in cutaneous T cell lymphoma. *Journal of Investigative Dermatology*, 138(11):2377-2387, 2018.

Gu L, Lingeman RG, Yakushijin F, Sun E, Cui Q, Chao J, Hu W, Hickey RJ, Stark JM, Yuan YC, **Chen Y**, Vonderfecht SL, Synold TW, Shi Y, Reckamp KL, Horne D, Malkas LH. The anti-cancer activity of a first-in-class small molecule targeting PCNA. *Clin Cancer Res*. 24(23):6053-6065, 2018.

Xu X, Shi R, Zheng L, Guo Z, Wang L, Zhou M, Zhao Y, Tian B, Truong K, Chen Y, Shen B, Hua Y, Xu H. SUMO-1 modification of FEN1 facilitates its interaction with Rad9-Rad1-Hus1 to counteract DNA replication stress. *J Mol Cell Biol.*, 10(5):460-474, 2018.

Barry R, John SW, Tenev T, Chen C-H, Choi J, Kasperkiewicz P, Alnemri E, Drag M, **Chen Y** and Meier P. SUMO-mediated Regulation of NLRP3 Critically Modulates Inflammasome Activity. *Nature Communications*, 9(1):3001, 2018.

Li Y-J, Du L, Aldana-Masangkay GI, Wang X, Urak R, Forman S, Rosen ST, and **Chen Y**. SUMOylation Regulates miR-34b/c Targeted Gene Expression Program. *Nucleic Acid Research*, 46(14):7108-7123, 2018.

Yan W, Zhou W, Fong M, Liu J, Liu X, Chen C-H, Fadare O, Liu L, Liu X, Cao M, Chin A, Jiang S, Ren X, **Chen Y**, Locasale J, and Wang SE. Cancer-cell-secreted exosomal miR-105 promotes tumour growth through the MYC-dependent metabolic reprogramming of stromal cells. *Nature Cell Biology*, 20(5):597-609, 2018.

Chen C-H, Ambaye N, Li Y-J, Khanna, S, **Chen Y**. Streptonigrin inhibits SENP1 and induces degradation of hypoxia-inducible factor 1 $\alpha$ . *Biochemistry*, 57(11):1807-1813, 2018.

Jiang X, Hu C, Ferchen K, Nie J, Cui X, Chen C-H, Zuo Z, Seibel W, Skibbe JR, Cheng L, Tang Y, Wunderlich M, Reinhold WC, Arnovitz S, Ulrich B, Lu J, Weng H, Su R, Huang H, Dong L, Wang Y, Li C, Qin X, Mulloy J, Zheng Y, Diao J, Jin J, Li C, Liu PL, He C, **Chen Y**, Chen J. Targeted inhibition of *TET1* transcription as a potent therapeutic strategy for acute myeloid leukemia. *Nature Communications*, 8(1):2099, 2017.

Cho M, Gong J, Paul Frankel P, Synold TW, Chung LD, Chao J, Li D, **Chen Y**, Sentovich S, Melstrom K, Singh G, Luevanos E, Fakih M. A phase I clinical trial of binimetinib in combination with FOLFOX in patients with advanced metastatic colorectal cancer who failed prior standard therapy. *Oncotarget*, 8(45):79750-79760, 2017.

Lv Z, Yuan L, Atkison JH, Aldana-Masangkay GI, **Chen Y**, & Olsen SK. Domain alternation and active site remodeling are conserved structural features of ubiquitin E1. *J. Biol. Chem*. 292(29):12089-12099, 2017.

Gong J, **Chen Y**, Yang L, Pillai R, Shirasawa S, Fakih M. MEK162 Enhances Antitumor Activity of 5-Fluorouracil and Trifluridine in KRAS-mutated Human Colorectal Cancer Cell Lines. *Anticancer Res*. 37(6):2831-2838, 2017.

Du L, Li YJ, Fakih M, Wiatrek RL, Duldulao M, Chen Z, Chu P, Garcia-Aguilar J, **Chen Y**. Role of SUMO activating enzyme in cancer stem cell maintenance and self-renewal. *Nature Communications*. 7:12326, 2016.

Kuo CY, Cheng CT, Hou P, Lin YP, Ma H, Chung Y, Chi K, **Chen Y**, Li W, Kung HJ, Ann DK. HIF-1-alpha links mitochondrial perturbation to the dynamic acquisition of breast cancer tumorigenicity. *Oncotarget*. 7(23):34052-69, 2016.

Namanja AT, Wang J, Buettner R, Colson L, **Chen Y**. Allosteric Communication across STAT3 Domains Associated with STAT3 Function and Disease-Causing Mutation. *J. Mol. Biol.* 428(3):579-89, 2016.

Alontaga AY, Ambaye ND, Li YJ, Vega R, Chen CH, Bzymek KP, Williams JC, Hu W, **Chen Y**. Observation of an E2 (Ubc9)-homodimer by crystallography. *DiB*, 7:195-200, 2016.

Yue P, Lopez-Tapia F, Paladino D, Li Y, Chen CH, Namanja AT, Hilliard T, Chen Y, Tius MA, Turkson J. Hydroxamic Acid and Benzoic Acid-Based STAT3 Inhibitors Suppress Human Glioma and Breast Cancer Phenotypes In Vitro and In Vivo. *Cancer Res*. 76(3):652-63, 2016.

Alontaga AY, Ambaye ND, Li YJ, Vega R, Chen CH, Bzymek KP, Williams JC, Hu W, **Chen Y**. RWD Domain as an E2 (Ubc9)-Interaction Module. *J Biol Chem*. 290 (27):16550-9, 2015.

Alontaga A, **Chen Y**. Reply to Function and Structure of the RWD Domain. *J Biol Chem*. 290(33):20628, 2015.

Madu IG, Li S, Li B, Li H, Chang T, Li YJ, Vega R, Rossi J, Yee JK, Zaia J, **Chen Y**. A Novel Class of HIV-1 Antiviral Agents Targeting HIV via a SUMOylation-Dependent Mechanism. *Sci Rep*, 5:17808, 2015.

Miklossy G, Youn UJ, Yue P, Zhang M, Chen CH, Hilliard TS, Paladino D, Li Y, Choi J, Sarkaria JN, Kawakami JK, Wongwiwatthananutit S, Chen Y, Sun D, Chang LC, Turkson J. Hirsutinolide Series Inhibit Stat3 Activity, Alter GCN1, MAP1B, Hsp105, G6PD, Vimentin, TrxR1, and Importin  $\alpha$ -2 Expression, and Induce Antitumor Effects against Human Glioma. *J Med Chem*. 58(19):7734-48, 2015.

Alontaga AY, Li Y, Chen C, Ma C, Malany S, Key DE, Sergienko E, Sun Q, Whipple DA, Matharu DS, Li B, Vega R, Li Y, Schoenen FJ, Blagg BJ, Chung TDY, **Chen Y**. Design of High Throughput Screening Assays and Identification of a SUMO1-Specific Small Molecule Chemotype Targeting the SUMO-Interacting Motif-Binding Surface. *ACS Combinatorial Science*, 17(4):239-46, 2015.

Fong MY, Zhou W, Liu L, Alontaga AY, Chandra M, Ashby J, Chow A, O'Connor STF, Li S, Chin AR, Somlo G, Palomares M, Li Z, Tremblay JR, Tsuyada A, Sun G, Reid MA, Wu X, Swiderski P, Ren X, Shi Y, Kong M, Zhong W, **Chen Y**, Wang SE. Breast cancer-secreted miR-122 reprograms glucose metabolism in premetastatic niche to promote metastasis. *Nature Cell Biol*. 17(2):183-94, 2015.

Chen CH, Namanja AT, **Chen Y**. Conformational flexibility and changes underlying activation of the SUMO-specific protease SENP1 by remote substrate binding. *Nature Commun*. 5:4968, 2014.

Wang JT, Xu X, Alontaga AY, **Chen Y**, Liu Y. Impaired p32 regulation caused by the lymphoma-prone RECQ4 mutation drives mitochondrial dysfunction. *Cell Rep*. 7(3):848-58, 2014.

Madu IG, Namanja AT, Su Y, Wong S, Li YJ, **Chen Y**. Identification and Characterization of a New Chemotype of Noncovalent SENP Inhibitors. *ACS Chem Biol*. 8(7):1435-41, 2013.

Zhang X, Yue P, Page BD, Li T, Zhao W, Namanja AT, Paladino D, Zhao J, **Chen Y**, Gunning PT, Turkson J. Orally bioavailable small-molecule inhibitor of transcription factor Stat3 regresses human breast and lung cancer xenografts. *Proc Natl Acad Sci U S A*. 109(24):9623-8, 2012.

Truong K, Lee TD, Li B, **Chen Y**. Sumoylation of SAE2 C terminus regulates SAE nuclear localization. *J Biol Chem*, 287(51):42611-9, 2012

Guo Z, Kanjanapangka J, Liu N, Liu S, Liu C, Wu Z, Wang Y, Loh T, Kowolik C, Jamsen J, Zhou M, Truong K, **Chen Y**, Zheng L, Shen B. Sequential Posttranslational Modifications Program FEN1 Degradation during Cell-Cycle Progression. *Mol Cell*. 47(3):444-56, 2012.

Truong K, Lee T, **Chen Y**. SUMO Modifications of the E1 Cys Domain Inhibits Its Enzymatic Activities. *J. Biol Chem*, 287(51):42611-9, 2012.

Alontaga A, Bobkova E, and **Chen Y**. Biochemical Analysis of Protein SUMOylation, *Current Protocol in Molecular Biology*, Chapter 10:Unit10.29, 2012.

Ikenna M, **Chen Y**. Biochemical Analysis of de-SUMOylation Enzymes, *Current Protocol in Molecular Biology*, Chapter 10:Unit10.30, 2012.

Li Y, Perkins AL, Su Y, Ma Y, Colson L, Horne DA and **Chen Y**. Gold Nanoparticles as a Platform for Creating a Multi-valent Poly-SUMO Chain Inhibitor That Also Augments Ionizing Radiation. *Proceeding of the National Academy of Sciences*, 109(11):4092-7, 2012.

Hu W, Namanja AT, Wong S, Chen Y. Selective Editing of Val and Leu Methyl Groups in High Molecular Weight Protein NMR, *J. Bio NMR*, 53(2):113-24, 2012.

Namanja AT, Li YJ, Su Y, Wong S, Lu J, Colson LT, Wu C, Li SS, **Chen Y**. Insights into high affinity SUMO recognition by SUMO-interacting motifs (SIM) revealed by a combination of NMR and peptide array analysis. *J Biol Chem*. 287(5):3231-40, 2012.

Cano KE, Li L, Bhatia S, Bhatia R, Forman SJ, and **Chen Y**. NMR-Based Metabolomic Analysis of the Molecular Pathogenesis of Therapy-Related Myelodysplasia/Acute Myeloid Leukemia. *J Proteome Res*, 10(6):2873-81, 2011.

Gilbreth RN, Truong K, Madu I, Koide A, Wojcik J, Li N-S, Piccirilli JA, **Chen Y** and Koide S. Isoform-specific Monobody Inhibitors of SUMO/SIM Interactions Engineered Using Structure-guided Library Design. *Proceeding of the National Academy of Sciences*, 108(19):7751-6, 2011.

Buettner R, Corzano R, Rashid R, Lin J, Senthil M, Hedvat M, Schroeder A, Mao A, Herrmann A, Yim J, Li H, Yuan YC, Yakushijin K, Yakushijin F, Vaidehi N, Moore R, Gugiu G, Lee TD, Yip R, Chen Y, Jove R, Horne D, Williams JC. Alkylation of cysteine 468 in Stat3 defines a novel site for therapeutic development. *ACS Chem Biol*. 6(5):432-43, 2011.

Truong K, Su Y, Song J, **Chen Y**. Entropy Drive Mechanism of an E3 Ligase. *Biochemistry*, 50(25):5757-66, 2011.

Wang J and **Chen Y**. The Role of the Zn-Motif of E1 in SUMO Adenylation. *J Biol Chem*, 285(31):23732-8, 2010.

Cano KE, Li YJ, Chen Y. NMR metabolomic profiling reveals new roles of SUMOylation in DNA damage response. *J Proteome Res*. 9(10):5382-8, 2010.

Wang J, Cai S, **Chen Y**. Mechanism of E1-E2 interaction for the inhibition of Ubl adenylation. *J Biol Chem*, 285(43):33457-62, 2010.

Li Y, Stark J, Chen DJ, Ann DK and **Chen Y**. Role of SUMO:SIM-Mediated Protein-Protein Interaction in Non-Homologous End Joining, *Oncogene*, 17;29(24):3509-18, 2010.

Tan J-A, Song J, Chen Y. and Durrin LK. Phosphorylation of the Genome Organizer, SATB1, Regulates its Interaction with the SUMO E3 Ligase Pias1, and Consequent Sub-nuclear Localization. *Mol Cell Biol*, 30(11):2823-36, 2010.

Song J, Wang J, Jozwiak AA, Hu W, Swiderski PM, and **Chen Y**. Stability of thioester intermediates in ubiquitin-like modifications, *Protein Science*, 18(12):2492-9, 2009.

Wang J, Lee B, Cai S, Fukui L, Hu W, **Chen Y**. Conformational transition associated with E1-E2 interaction in SUMO modifications, *J Biol Chem*. 284(30):20340-8, 2009.

Seu C and **Chen Y**. Identification of SUMO-binding motifs, *Methods in Molecular Biology*, 497, 121-140, 2009.

Cao X, Clavijo C, Li X, Lin HH, Chen Y, Shih HM, Ann DK. SUMOylation of HMGA2: selective destabilization of promyelocytic leukemia protein via proteasome. *Mol Cancer Ther*. 7(4):923-34, 2008.

Tan JA, Sun Y, Song J, **Chen Y**, Krontiris TG, Durrin LK. SUMO conjugation to the MAR-binding protein, special at-rich sequence binding protein-1, targets it to promyelocytic nuclear bodies where it undergoes caspase cleavage. *Journal of Biological Chemistry*, 283(26):18124-34, 2008.

Rouleau N, Wang J, Karras L, Andrews E, Bielefeld-Sevigny M, and **Chen Y**. Highly Sensitive Assays for Sumoylation and SUMO-Dependent Protein-Protein Interactions, *Analytical Biochemistry*, 375(2):364-6, 2008.

Wang J, Hu W, Lee B, Song J and **Chen Y**. The Intrinsic Affinity between E2 and the Cys Domain of E1 in Ubiquitin-Like Modifications, *Molecular Cell*, 27(2):228-37, 2007.

**Chen Y**. The enzymes in ubiquitin-like post-translational modifications. *BioScience Trends*, 1(1):16-25, 2007.

Fukui L and **Chen Y**. NvMap: Automated Analysis of NMR Chemical shift Perturbation Data, *Bioinformatics*, 23(3):378-80, 2007.

Cai S, Zhu L, Zhang, Z and **Chen Y**. Determination of the Three-dimensional Structure of the Mrf2-DNA Complex by Paramagnetic Spin-labeling, *Biochemistry*, 46(17):4943-50, 2007.

Sheng C, Seu C, Kovacs Z, Sherry AD and **Chen Y**, Sensitivity Enhancement of Multidimensional NMR Experiments by Paramagnetic Relaxation Effects, *Journal of the American Chemical Society*, 128(41):13474-8, 2006.

Cai S, Lee B, Cheng C, Hu W, Yoon J, Pfeifer GP and **Chen Y**, <sup>1</sup>H, <sup>13</sup>C and <sup>15</sup>N resonance assignments of the C-terminal domain of RP2, *Journal of Biomolecular NMR*, 36 Suppl 5:9, 2006.

Chung V, Zhou B, Liu X, Zhu L, Boo LM, Nguyen HV, Ann DK, Song J, **Chen Y**, Yen Y, SUMOylation Plays a Role in Gemcitabine and Bortezomib Induced Cytotoxicity in Human Oropharyngeal Carcinoma KB Gemcitabine-Resistant Clone, *Molecular Cancer Therapeutics*, 5(3), 533-540, 2006.



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- Song J, Zhang Z, Hu W, and **Chen Y**, SUMO recognition of a SUMO-binding motif: A reversal of the bound orientation, *Journal of Biological Chemistry*, 280(48):40122-9, 2005
- Tatham MH, Kim S, Jaffray E, Song J, **Chen Y**, and Hay RT, Unique binding interactions between Ubc9, SUMO and RanBP2 reveal a mechanism for SUMO paralogue selection, *Nature Structure and Molecular Biology*, 12(1):67 – 74, 2005.
- Lee DH, Jin SG, Cai S, **Chen Y**, Pfeifer GP and O'Connor TR, Repair of methylation damage in DNA and RNA by mammalian AlkB homologues, *Journal of Biological Chemistry*, 280(47):39448-59, 2005
- Yoon J, Singh P, Lee DH, Qiu J, O'Connor TR, **Chen Y**, Shen B, and Pfeifer GP, Characterization of the 3' to 5' exonuclease activity found in human nucleoside diphosphate kinase 1 (NDK1) and several of its homologues, *Biochemistry*, 44(48):15774-86, 2005.
- Song J., Durrin LK, Wilkinson TA, Krontiris TG, **Chen Y**, Identification of a SUMO Binding Motif that Recognizes SUMO Modified Proteins, *Proceeding of the National Academy of Sciences*, 101(40), 14373-14378, 2004.
- Wilkinson TA, Zhu L, Hu W, and **Chen Y**, Retention of Conformational Flexibility in High Affinity Protein-RNA Interactions, *Biochemistry*, 43(51):16153-60, 2004.
- Kim S, Zhang Z, Upchurch S, Isern N and **Chen Y**, Structure of the Human SWI1 ARID Reveals Determinants for Sequence-Specific DNA recognition, *Journal of Biological Chemistry*, 279(16):16670-6, 2004.
- Wilsker D, Patsialou A, Zumbun SD, Kim S, **Chen Y**, Dallas PB, Moran E, The DNA-binding properties of the ARID-containing subunits of yeast and mammalian SWI/SNF complexes, *Nucleic Acids Research*, 32(4):1345-53, 2004.
- Zhang Z, Hu, W, Cano L, Lee TD, Chen D, and **Chen Y**, Solution Structure of the C-terminal Domain of Ku80 Suggests Important Sites for Protein-Protein Interactions, *Structure*, 12:495-502, 2004.
- Chen Y**, Molecular Mechanism of Sumoylation. "Sumoylation: Molecular Biology and Biochemistry" (Invited Book Chapter), Horizon Scientific Press, V. Wilson Ed., 2004.
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- Tatham MH, **Chen Y** and Hay RT, Two Residues Proximal to the Active-site of Ubc9 are Important for Substrate Recognition by the Ubc9•SUMO-1 Thioester Complex, *Biochemistry*, 42:3168-79, 2003.

Kim S, Zhu L, Yu B and **Chen Y**, Resonance Assignments of the ARID domain in Human SWI1, *Journal of Biomolecular NMR*, 27:277-8, 2003.

Hu W, Zhang Z, and **Chen Y**, A High Sensitivity 3D Experiment for Measuring  $C_{\alpha}$ - $H_{\alpha}$  Residual Dipolar Coupling Constants, *Journal of Magnetic Resonance*, 165:248-52, 2003.

Lin D, Tatham MH, Yu B, Kim S, Hay RT, **Chen Y**, Identification of a Substrate Recognition Site on Ubc9, *Journal of Biological Chemistry*, 277: 21740-21748, 2002.

Zhang Z, Zhu L, Lin D, Chen F, Chen DJ, **Chen Y**, The Three-dimensional Structure of the C-terminal DNA-binding Domain of Human Ku70, *Journal of Biological Chemistry*, 276: 38231-38236, 2001.

Zhu L, Hu J, Lin D, Whitson R, Itakura K, **Chen Y**, Dynamics of the Mrf-2 DNA-Binding Domain Free and in Complex with DNA, *Biochemistry*, 40:9142-50, 2001.

Wilkinson TA, Botuyan MV, Rossi JJ, and **Chen Y**, Arginine Sidechain Dynamics in the HIV-1 Rev-RRE Complex, *Journal of Molecular Biology*, 303: 515-529, 2000.

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Liu Q, Shen B, Chen DJ, **Chen Y**, Backbone resonance assignments of human UBC9, *Journal of Biomolecular NMR* 13:89-90, 1999.

12. Liu Q, Yuan Y-C, Shen B, Chen DJ, and **Chen Y**, Conformational Flexibility of a Ubiquitin Conjugation Enzyme (E2), *Biochemistry*, 38:1415-1425, 1999.

Yuan Y-C, Whitson RH, Liu Q, Itakura K, and **Chen Y**, A Novel DNA-Binding Motif Shares Structural Homology to DNA Replication and Repair Nucleases and Polymerases, *Nature Structural Biology*, 5: 15-20, 1998.

Yuan Y-C, Whitson RH, Itakura K, and **Chen Y**, Resonance Assignments of the Mrf-2 DNA-Binding Domain, *Journal of Biomolecular NMR*, 11: 459-460, 1998.

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