RUONING WANG

CONTACT INFORMATION

Ruoning Wang, Ph.D Assistant Professor, Department of Pediatrics The Ohio State University School of Medicine The Research Institute at Nationwide Children's Hospital Investigator, Center for Childhood Cancer and Blood Disease 700 Children's Drive, Rm. WA5019 Columbus, OH 43205-2696

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EDUCATION St Jude Children Research Hospital Department of Immunology

& TRAINING Postdoctoral Fellow (Douglas Green Lab) March 2008-Aug 2013

Project: Cell metabolism and cell fate

University of Texas MD Anderson Cancer Center

Postdoctoral Fellow (Jian Kuang Lab)

June 2007-December 2007

Manuscript preparation

University of Texas MD Anderson Cancer Center Genes & Development Program

Ph.D. Student (Jian Kuang Lab) August 2002-June 2007

Thesis Project: Regulation of Cdc25 during G2/M transition

Nanjing Medical University Department of Molecular Biology

Master of Science in Biochemistry September 1998-June 2002

Thesis Project: The Function Studies of Thymidine Phosphorylase.

China Pharmaceutical University

Bachelor of Science in Medicinal Chemistry September 1992-June 1996

Thesis Project: The Synthesis of novel molecules with Anti-UV Activity.

WORK Department of Biochemistry and Molecular Biology, Nanjing Medical University

EXPERIENCE Teacher: teach undergraduates and graduates with the subject of Medical Biochemistry and Molecular Biology

July 1996-Jun 2002

SCIENTIFIC Jennifer Martinez, Katherine Verbist, <u>Ruoning Wang</u>, and Douglas Green. The Relationship

PUBLICATIONS between Metabolism and the Autophagy Machinery during the Innate Immune Response.

Cell Metabolism, 2013 Jun (Review)

Verbist Katherin, <u>Ruoning Wang</u> and Douglas Green. T cell metabolism and the immune response. <u>Seminars in Immunology</u>. 2013 Jan.(Review)

Chuan-Fen Wu*, Shuaishuai Liu*, Yu-Chen Lee, **Ruoning Wang**, Sheng Sun, Fumin Yin, William Bornmann, Wei Zhang, Li-Yuan Yu-Lee, Gary E. Gallick, sue-Hwa Lin, Jian Kuang. The signaling kinase RSK promotes G2/M transition through activating phosphorylation of Cdc25A and Cdc25B. **Oncogene**. 2013. (*Contributed equally to this work).

Guangwei Liu*, Yujing Bi, **Ruoning Wang** and Xianghui Wang. Self-eating and self-defense: autophagy controls innate immunity and adaptive immunity. J Leukoc Biol. 2013 [Epub Ahead of print] (Review) (*Corresponding author).

Zuqin Nie*, Gangqing Hu*, Gang Wei, Kairong Cui, Arito Yamane, Wolfgang Resch, **Ruoning Wang**, Douglas R. Green, Lino Tessarollo, Rafael Casellas, Keji Zhao, and David Levens. c-Myc is a universal amplifier of gene expression. **Cell**. 2012 Sep; (1):68-79 (*Contributed equally to this work).

Ruoning Wang* and Douglas Green*. The metabolic checkpoint in activated T cells. **Nature Immunology**. 2012 Oct;13(10): 907- 15 (Review) (*Corresponding author).

Ruoning Wang and Douglas Green. The metabolic reprogramming and dependency in T cells. **Immunological Review**. 2012 Sep;249(1):14-26 (Review).

Ruoning Wang and Douglas Green. The immune diet: Meeting the metabolic demands of lymphocyte activation. **F1000 Biol Reports**, 2012 4:9 (Review)

Ruoning Wang, Christopher Dillon, Lewis Shi, Sandra Milasta, Robert Carter, Laura McCormick, Patrick Fitzgerald, Hongbo Chi, Joshua Munger and Douglas Green. The

Transcription Factor Myc Controls Metabolic Reprogramming upon T Lymphocyte Activation. **Immunity**, 2011 Dec 23; 35(6): 871-82

Lewis Shi*, <u>Ruoning Wang</u>*, Gonghua Huang, Peter Vogel, Geoffrey Neale, Douglas Green and Hongbo Chi. HIF1α-dependent glycolytic pathway orchestrates a metabolic checkpoint for the differentiation of TH17 and Treg cells. **J Exp Med** 2011 Jul 4;208(7):1367-76 (*Contributed equally to this work).

David Bedford, Lawryn Kasper, **Ruoning Wang**, Yunchao Chang, Douglas Green and Paul Brindle. Disrupting the CH1 domain structure in the acetyltransferases CBP and p300 results in lean mice with increased metabolic control. **Cell Metabolism** 2011 Aug 3;14(2):219-30.

Douglas Green* and **Ruoning Wang**. Calcium and Energy: Making the Cake and Eating It too? **Cell**. 2010 Jul 23;142(2):200-202. (Preview) (*Corresponding author).

Ruoning Wang, Sungyun Jung, Chuanfen Wu, Jun Qin, Ryuji Kobayashi, Gary E Gallick, P. and Jian Kuang, Direct roles of the signaling kinase RSK2 in Cdc25C activation during Xenopus oocyte maturation. **PNAS** 2010, Nov 107(46): 19885-90.

Jinhua Yu, Huixia He, Chunbo Tang, Guangdong Zhang, Yuanfei Li, **Ruoning Wang**, Junnan Shi and Yan Jin. Differentiation potential of STRO-1+ dental pulp stem cells changes during cell passaging. **BMC Cell Biology** 2010, May 11:32

Chuan Fen Wu, **Ruoning Wang**, Sung Yun Jung, Wenke Li, Cheryl L. Ashorn, Mayra Nelman-Gonzalez, Jun Qin, Sue-Hwa Lin and Jian Kuang. Dissecting the M phase-specific phosphorylation of S/T-P motifs. **Mol Biol Cell.** 2010 May 21(9):1470-81.

Shujuan Pan, <u>Ruoning Wang</u>, Xi Zhou, Malgorzata Kloc, Joe Corvera, Richard Sifers, Sue-Hwa Lin and Jian Kuang. Extracellular Alix regulates integrinmediated cell adhesions and extracellular matrix assembly. **EMBO J**. 2008 Aug 6;27(15):2077-90.

Yong Zhao, Oliveier Haccard, **Ruoning Wang**, JiangtaoYu, Jian Kuang, Catherine Jessus, Michael L. Goldberg. Roles of Greatwall. Kinase in the Regulation of Cdc25 Phosphatase. **Mol Biol Cell**. 2008 Apr; 19(4): 1317-27

Ruoning Wang, Guangan He, Mayra Nelman-Gonzalez, Cheryl L. Ashorn, P. Todd Stukenberg, Marc W. Kirschner and Jian Kuang. Regulation of Cdc25C by Erk-MAP kinase during the G2/M transition. **Cell**. 2007 Mar, 128: 1119-32

Shujuan Pan*, <u>Ruoning Wang*</u>, Xi Zhou, Guangan He, John Koomen, Ryuji Kobayashi, Gary E. Gallick, Le Sun, Joe Corvera and Jian Kuang. Involvement of the Conserved adaptor protein Alix in actin cytoskeleton assembly. **J Biol Chem.** 2006 Nov 10; 281 (45): 34640-50 (*Contributed equally to this work)

Jinhua Yu, Junnan Shi, Zhihong Deng, Heng Zhuang, Xin Nie, **Ruoning Wang** and Yan Jin. Cell pellets from dental papillae can reexhibit dental morphogenesis and dentinogenesis. **Biochem Biophys Res Commun**. 2006 Jul 21; 346(1):116-24

Guangan He, Zahid H Siddik, Zaifeng Huang, **Ruoning Wang**, John Koomen, Ryuji Kobayashi, Abdul R Khokhar and Jian Kuang. Induction of p21 by p53 following DNA damage inhibits both Cdk4 and Cdk2 activities, **Oncogene.** 2005 Apr 21;24 (18):2929-43.

BOOK CHAPTER

Chapter "Mechansims of G2 Phase Arrest in DNA Damage-Induced Checkpoint Response" in Cancer Drug Discovery and Development Series, 1st Ed., 2010, Humana Press, USA

Chapter "**Metabolism of Sugar**" in Medical Biochemistry (43-61), 1st Ed., May 1999, Southeast University Press, Nanjing. China

Chapter "**Metabolism of Sugar**" in Biochemistry and Molecular Biology (116-131), 1st Ed., Aug. 2001, Science Press, Beijing, China

HONORS

AACR-Bristol-Myers Squibb Oncology Scholar-in-Training Award

AND AWARDS American Cancer Society, 2011

George J. Mitchell Fellowship
St Jude Children Research Hospital, 2009-2012

Presidents' Research Scholar Award

UTH-GSBS & UT-MD Anderson Cancer Center, 2007

Alfred G. Knudson Outstanding Dissertation Award

UT-MD Anderson Cancer Center, 2007

Research Achievement Award (1st Place)

Genes & Development Program, UT-MD Anderson Cancer Center, 2006

Genes & Development Travel Award

Genes & Development Program, UT-MD Anderson Cancer Center, 2006 (May & Nov)

GSBS Travel Award

UTH-GSBS & UT-MD Anderson Cancer Center, 2006 (May & Nov)

INVITED Frontiers of Immunology in Health and Diseases Sep, 2012

LECTURES Cold Spring Harbor Conference

Regulation of Lymphocyte Signaling Program Mar, 2012

Keystone Symposia

Metabolic Regulation and Cancer (Minisymposium)

Apr, 2011

American Cancer Society Annual Meeting

Postdoctoral Annual Retreat Mar, 2008

St Jude Children Research Hosiptial

Experimental Therapeutics Departmental Seminal,

Department of Experimental Therapeutics, UT MD Anderson Cancer Center Feb, 2008

Presidents' Research Scholar symposium,

GSBS, University of Texas Health Center at Houston Feb, 2007

Grady Saunders Student Lecture,

Gene & Development Program, UT MD Anderson Cancer Center Mar, 2007

PATENTS MDACC, Jian Kuang, Shujuan Pan, Ruoning Wang and Xi Zhou. Anti-Alix Antibodies and Hybridomas, United States, Serial no. 60/821,454, 8/4/2006, Filed

TECHNOLOGY Santa Cruz, UT MDACC, Hibridoma clone for 3A9 anti-Alix antibody; Hybridoma clone for 2H12 anti-Alix antibody; Hybridoma clone for 1A12 anti-Alix antibody, MDA06-002; MDA06-062; MDA06-063, 3/27/2006

Cell Signaling Technology, UT MDACC, Hybridoma clone for 3A9 anti-Alix antibody, MDA06-002, 6/7/2006

Serotec, UT MDACC, Hybridoma Clone for 3A9 Anti-Alix Antibody, MDA06-002, 9/4/2006

Santa Cruz, UT MDACC, Hibridoma clone for 2F3 anti-Cdc25C antibody; Hybridoma clone for 3D5 anti-ERK2 antibody; 2008