

Curriculum Vitae

Ke Zhang

Assistant Professor
Department of Biology
Wake Forest University
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Education

- 2006-2012 Postdoctoral Fellow, Laboratory of Biochemistry and Molecular Biology, National Cancer Institute, National Institute of Health, Bethesda, Maryland, Shiv Grewal, Advisor
- 2000-2005 PhD, Genes & Development program, M.D. Anderson Cancer Center, Houston, Texas, Sharon Dent, Advisor
- 1997-1999 MS, Oncology, Peking Union Medical College, Beijing, P. R. China, Dongxin Lin, Advisor
- 1993-1997 BS, Biochemistry, Wuhan University, Wuhan, P.R. China

Awards & Honors

- 2005 Knudson Outstanding Dissertation Award, M.D. Anderson Cancer Center, Houston, TX
- 2003-2005 Rosalie B. Hite Predoctoral Fellowship in Cancer Research, M.D. Anderson Cancer Center, Houston, TX
- 2005 The Alumni Association Award in Basic Science Research, First place, Trainee Recognition, M.D. Anderson Cancer Center, Houston, TX
- 2004 Professor Alexander Yue-Ming Wang Memorial Scholarship, Society of Chinese Bioscientists in America, Texas Chapter
- 2003 Post- Candidacy Research Achievement Award, Program of Genes and Development, M.D. Anderson Cancer Center, Houston, TX
- 2001 Pre-Candidacy Research Poster Achievement Award, Program of Genes and Development, M.D. Anderson Cancer Center, Houston, TX

Teaching and Mentoring Experience

- 2011 Instructor, Epigenetics and Cancer Summer Journal Club for NIH interns, National Institute of Health
- 2008-2010 Supervised a technical assistant, National Cancer Institute, NIH
- 2001-2005 Supervised five rotation graduate-level students, M.D. Anderson Cancer Center, Houston, Texas

Invited Platform Presentations

- April 2012 Wake Forest University, Department of Biology
February 2012 University of Iowa, Department of Biology
February 2012 Johns Hopkins University, Department of Biology
February 2012 Johns Hopkins University, Department of Biological Chemistry
February 2012 Temple University, Fels Institute
January 2012 University of Illinois Urbana-Champaign, Department of Biochemistry
January 2012 Washington University at St. Louis, Department of Biology
January 2012 Temple University, Department of Biology
August 2011 Epigenetics, Chromatin & Transcription- FASEB Summer Research Conference, Snowmass Village, Colorado
June 2010 Center for Excellence in Chromatin Biology Research Retreat, National Institute of health, Bethesda, Maryland
June 2008 Transcriptional Regulation during Cell Growth, Differentiation and Development- FASEB Summer Research Conference, Snowmass Village, Colorado

Publications

Zofall, M., Yamanaka, S., Reyes-Turcu, F. E., **Zhang, K.**, Rubin, C., Grewal, S.I.S. (2012) RNA elimination machinery targeting meiotic mRNAs promotes facultative heterochromatin formation. **Science** 335(6064):96-100

Zhang, K., Fischer, T., Porter, R.L., Dhakshnamoorthy, J., Zofall, M., Zhou, M., Veenstra, T.D., Grewal, S.I. (2011) Ctr4/Suv39 and RNA quality control factors cooperate to trigger RNAi and suppress antisense RNA. **Science** 331: 1624-27

Reyes-Turcu, F. E. *, **Zhang, K.***, Zofall, M., Chen, E., Grewal, S.I.S. (2011) Defects in RNA quality control machinery promote RNAi-independent heterochromatin formation. **Nat. Struct. Mol. Biol.**

***These authors contribute equally to this work**

Zofall, M., Fischer, T., **Zhang, K.**, Zhou, Ming., Cui, B., Veenstra, T.D., and Grewal, S.I. (2009) Histone H2A.Z cooperates with RNAi and heterochromatin factors to suppress antisense RNAs. **Nature** 461(7262):419-22

Roguev, A., Bandyopadhyay, S., Zofall, M., **Zhang, K.**, Fischer, T., Collins, S.R., Qu, H., Shales, M., Park, H.O., Hayles, J., Hoe, K.L., Kim, D.U., Ideker, T., Grewal, S.I., Weissman, J.S. and Krogan, N.J. (2008) Conservation and rewiring of functional modules revealed by an epistasis map in fission yeast. **Science** 322 (5900): 405-10

Zhang, K., Mosch, K., Fischle, W., and Grewal, S. I. (2008) Roles of the Ctr4 methyltransferase complex in nucleation, spreading and maintenance of heterochromatin. **Nat. Struct. Mol. Biol.** 15(4):381-8

Chen, ES., **Zhang, K.**, Nicolas, E., Cam, H.P., Zofall, M., Grewal, S. I. (2008) Cell cycle control of centromeric repeat transcription and heterochromatin assembly. **Nature** 451(7179):734-7

Leem, Y.E., Ripmaster, T.L., Kelly, F.D., Ebina, H., Heincelman, M.E., **Zhang, K.**, Grewal, S.I. Hoffman, C.S., Levin, H.L. (2008) Retrotransposon Tf1 is targeted to Pol II promoters by transcription activators. **Mol. Cell** 30(1):98-107

Zhang, K., Lin, W., Latham J.A., Riefler G.M., Schumacher, J.M., Chan C., Tatchell, T., Hawke, D., Kobayashi, R. and Dent, S.Y.R. (2005) The Set1 methyltransferase opposes Ipl1 Aurora kinase functions in chromosome segregation. **Cell** (122) 723-734

Zhang, K., Dent, S.Y.R (2005) Histone modifying enzymes and cancer: going beyond histones. **J Cell Biochem.** 96(6):1137-48.