

CURRICULUM VITAE**Zhaohua Irene Tang, Ph.D.**

W. M. Keck Science Department (Keck Science)
 Claremont McKenna, Pitzer, and Scripps Colleges
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 Claremont, CA 91711
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EDUCATION

Peking University Medical School, Beijing, China		1978–1981
State University of New York at Stony Brook, NY	Biochemistry	B.S., 1983
University of California, Los Angeles, CA	Biochemistry	Ph.D., 1990
California Institute of Technology, Pasadena, CA	Cell Cycle Regulation	
	Postdoctoral Fellow,	1991–1995
Beckman Research Institute, City of Hope, CA	mRNA processing/cell cycle,	
	Postdoctoral Fellow,	1995–2000

Ph.D. Thesis

Studies on Transcription Termination of the Chicken ϵ -globin Gene during Embryonic Development (1990)
Advisor: Dr. Harold G. Martinson

Postdoctoral Research

Mechanisms of Cell-division Cycle Control Using the *Xenopus* Egg System (1991–1995)
Advisor: Dr. William G. Dunphy

Functional Conservations of SR Protein-specific Kinases (1995–2000)
Advisor: Dr. Ren-Jang Lin

PROFESSIONAL POSITIONS

2013–present	Professor of Biology, Keck Science Department, Claremont McKenna College, Pitzer College, and Scripps College, Claremont, CA
2005–2013	Associate Professor of Biology, Keck Science Department, Claremont McKenna College, Pitzer College, and Scripps College, Claremont, CA
2001–2005	Assistant Professor of Biology, Keck Science Department, Claremont McKenna College, Pitzer College, and Scripps College, Claremont, CA
2000–present	Visiting Scientist, Molecular Biology Department, Beckman Research Institute of the City of Hope, Duarte, CA
2000–2001	Interim Director of Molecular Biology Program and Assistant Professor, Biology Department, Pomona College, Claremont, CA
1998–2000	Instructor of Molecular Biology core course of Ph.D. program, Beckman Research Institute of the City of Hope, Duarte, CA
1995–2000	Research Fellow, Molecular Biology Department, Beckman Research Institute of the City of Hope, Duarte, CA

1991–1995 Postdoctoral Fellow, Division of Biology, California Institute of Technology, Pasadena, CA

HONORS

- *Distinguished Teaching Award*, University of California, Los Angeles, CA, 1989
- *International Workshop for Integrated Yeast Sciences*, Okinawa, Japan, March 14–20, 2004
Invited as a guest of the Japanese Government and selected from the international science community to attend the meeting for attracting scientists world-wide to support the development of science and technology in that region.

PROFESSIONAL AFFILIATIONS

Society of Chinese Bioscientists in America, 1995-Present

American Society of Cell Biology, 2005–present

Faculty member of Claremont chapter of Sigma Xi, The Scientific Research Society, 2004–2006

American Association for the Advancement of Science, 1993–2005

American Chemistry Society, the Branch of Biological Chemistry, 1988–1998

CURRENT RESEARCH INTEREST

Main Fields

- Cell signaling transduction
- Regulation of Cell-Division Cycle
- Pre-mRNA Processing for Gene Expression in Eukaryotes
- Comparative Genomic studies on Environmental Stress Mechanisms

Primary Projects

- Functions of SR Protein-specific Kinase Dsk1 and LAMMER Kinase Kic1 in Cell Cycle Regulation and Pre-mRNA Processing
- Genomic Analysis of Response Networks to Environmental Stress Factors
- Genomic Analysis of Cellular Sensitivity to Anti-cancer Drugs

TEACHING EXPERIENCE

1998–2000, Beckman Research Institute of the City of Hope

Molecular Biology core course of Ph.D. program (lectures)

2000–2001, Pomona College

Molecular Biology 179 Regulation of the Cell-division Cycle (lecture)

Chemistry 156 Physical Chemistry for Molecular Biology Program (lecture)

Molecular Biology Senior Thesis Seminar

Molecular Biology Junior Research Seminar

2001–2012, Keck Science Department

Bio 43 Introductory Biology, lecture and lab

Biology 157 Cell Biology, lecture and lab

Biology 177 Biochemistry (Lecture)

Biology 158 Cell Cycle, Diseases, and Aging (lecture), created since joined the Department in 2001

PUBLICATIONS**Research Papers in Peer-reviewed Journals***(Names of undergraduate students are indicated by an *)*

- Coleman, T.R., **Tang, Z.**, and Dunphy, W.G. (1993) Negative Regulation of the Wee1 Protein Kinase by Direct Action of the Nim1/Cdr1 Mitotic Inducer. *Cell* **72**, 919–929.
- **Tang, Z.**, Coleman, T.R., and Dunphy, W.G. (1993) Two Distinct Mechanisms for Negative Regulation of the Wee1 Protein Kinase. *EMBO* **12**(9), 3427–3436.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC413619/pdf/emboj00081-0087.pdf>
- **Tang, Z.**, Yanagida, M., and Lin, R.-J. (1998) Fission Yeast Mitotic Regulator Dsk1 Is an SR Protein-Specific Kinase. *J. Biol. Chem* **273**, 5963–5969.
- **Tang, Z.**, Kuo*, T., Shen*, J., and Lin, R.-J. (2000) Biochemical and Genetic Conservation of Fission Yeast Dsk1 and Human SRPK1. *Mol. Cell. Biol* **20** (3), 816–824.
- **Tang, Z.**, Käufer, N. F., and Lin, R.-J. (2002) Interactions Between Two Fission Yeast SR-Related Proteins and Their Modulation by Phosphorylation. *Biochemical Journal* **368**, 527–534.
- **Tang, Z.**, Mandel, L., Yean, S.-L., Lin*, C.X., Chen*, T., Yanagida, M., and Lin, R.-J. (2003) The Kic1 Kinase of *Schizosaccharomyces pombe* Is a CLK/STY Orthologue That Regulates Cell-Cell Separation. *Experimental Cell Research* **283**, 101–115.
- Portal, D., Lobe, G.S., Kadener, S., Prasad, J., Espinosa, J.M., Pereira, C.A., **Tang, Z.**, Lin, R.-J., Manley, J.L., Kornblihtt, A.R., Flawia M.M., and Torres H.N. (2003) *Trypanosoma cruzi* TcSRPK, The First Protozoan Member of The SRPK Family, Is Biochemically and Functionally Conserved with Metazoan SR Protein-specific Kinases. *Molecular and Biochemical Parasitology* **127**, 9–21.
- Portal, D., Espinosa J.M., Lobo G.S., Kadener S., Pereira C.A., De La Mata M., **Tang Z.**, Lin R.-J., Kornblihtt A.R., Baralle F.E., Flawia M.M., and Torres H.N. (2003) An Early Ancestor in The Evolution of Splicing: A Trypanosoma Cruzi Serine-arginine-rich Protein (TcSR) Is Functional in Cis-splicing. *Molecular and Biochemical Parasitology* **127**, 37–46.
- Huang, C-J, **Tang, Z.**, Lin, R.-J, and Tucker, P.W. (2007) Phosphorylation by SR kinases regulates the binding of PTB-associated splicing factor (PSF) to the pre-mRNA polypyrimidine tract. *FEBS lett* **581** (2), 223–232.
- **Tang, Z.**, Alaei*, S., Tsurumi*, A., Wilson*, C., Chiu*, C., Oya*, J., and Ngo*, B. (2007) Dsk1 Kinase Phosphorylates SR Proteins and Regulates Their Cellular Localization in Fission Yeast. *Biochemical Journal* **405** (1), 21–30.
- **Zhaohua Tang**, Maria Luca*, Jessica Portillio*, Benson Ngo*, Cathey Chang, Teresa Wen*, Johanne Murray, and Antony Carr. (2011) LAMMER Kinase Kic1 Is Involved in Pre-mRNA

Processing. *Experimental Cell Research* **317** (16), 2308–2320. Selected by the Editor as one of the two “highlights” of the issue.

(<http://www.sciencedirect.com/science/article/pii/S0014482711002503>)

- **Zhaohua Tang**, Maria Luca*, Laura Taggart-Murphy*, Jessica Portillio*, Cathey Chang, Ayse Guven*, Ren-Jang Lin, Johanne Murray, and Antony Carr. (2012) Interacting Factors and Cellular Localization of SR Protein-specific Kinase Dsk1. *Experimental Cell Research* **318** (16), 2071-2084.
(<http://www.sciencedirect.com/science/article/pii/S0014482712002686>)

Educational Papers in Peer-reviewed Journals

*(Names of undergraduate students are indicated by an *)*

- **Zhaohua Tang**. (2010) The Domino and Clock Models of Cell Cycle Regulation. *Nature Education* **3**(9):56 (www.nature.com/scitable/topicpage/the-domino-and-clock-models-of-cell-14233440)
- Nicole M. Duggan* and **Zhaohua Tang**. (2010) The Formation of Heterochromatin and RNA interference. *Nature Education* **3**(9):5 (www.nature.com/scitable/topicpage/the-formation-of-heterochromatin-and-rna-interference-14169031)

Chapters in Peer-reviewed Books

- **Zhaohua Tang**. Chapter 2: Model Organisms for Studying the Cell Cycle. Amanda S. Coutts and Louise Weston (eds.), *Cell Cycle Oscillators: Methods and Protocols*, Methods in Molecular Biology, vol. 1342, p21-57, DOI 10.1007/978-1-4939-2957-3_2, © Springer Science+Business Media New York 2015.
- **Zhaohua Tang** and Gretchen Edwalds-Gilbert. Chapter 20: Nucleic Acid and Protein Sample Preparation from Yeasts. M. Micic (ed.), *Sample Preparation Techniques for Soil, Plant, and Animal Samples*, Springer Protocols Handbooks, DOI 10.1007/978-1-4939-3185-9_20 © Springer Science+Business Media New York 2016.

Manuscripts

*(Names of undergraduate or high school students are indicated by an *)*

- Bashar Alhoch*, Alan Chen*, Elaine Chan*, Asmaa Elkabti*, Sasha Fariña*, Catherine Gilbert*, Jean Kang*, Bradley King*, Karen Leung*, Julia Levy*, Elizabeth Martin*, Benjamin Mazer*, Sara McKinney*, Alexandra Moyzis*, Margaret Nurimba*, Michelle Ozaki*, Shravya Raju*, Gretchen Edwalds-Gilbert¹, Maria C. Negritto², Kathleen Purvis-Roberts¹, Cynthia Selassie³, Ruye Wang⁴, and Zhaohua Tang¹. Comparative Genomic Screen in Two Yeasts Reveals the Conserved Pathways in the Response Network to Phenol Stress. In preparation.
- Alexandra Moyzis*, Karen Leung*, Margaret Nurimba*, Asmaa Elkabti*, Ruye Wang, Xuqing Yang, and **Zhaohua Tang**. Genomic Analysis of Response Networks to Platinum-based Anticancer Drugs in Fission Yeasts. In preparation.

PRESENTATIONS AT RESEARCH CONFERENCES (selected)

(Names of undergraduate or high school students are indicated by an *)

- Kumagai, A., **Tang, Z.**, Coleman T.R., and Dunphy W.G. Mechanisms Controlling Activation of MPF. Abstracts of papers presented at the meeting on *THE CELL CYCLE*, Cold Spring Harbor, N.Y., 1992, p188.
- Coleman, T.R., **Tang, Z.**, and Dunphy, W.G. Negative Regulation of the Wee1 Protein Kinase by Direct Action of the Nim1/Cdr1 Mitotic Inducer. The Final Program and Abstracts Volume for *the Cell cycle '93: Regulators, Targets and Clinical Applications*, 1993, p41.
- **Tang, Z.**, Coleman, T.R., and Dunphy, W.G. Two Distinct Mechanisms for Negative Regulation of the Wee1 Protein Kinase. Abstracts of papers presented at the Annual Meeting of Cell Biology, New Orleans, LA, October, 1993, and Supplement to *Molecular Biology of the Cell*, **4**, 130a, No. 754.
- Dunphy, W.G., Coleman, T.R. Kumagai, A., Mueller, P.R., and **Tang, Z.** Regulation of CDC2 Activation in Xenopus Extracts. Abstracts of Papers presented at the meeting on *THE CELL CYCLE*, Cold Spring Harbor, N.Y., 1994, p224.
- **Tang, Z.**, Yanagida, M., and Lin, R.-J. Fission Yeast Mitotic Regulator Dsk1 is an SR Protein-Specific Kinase. Abstracts of Papers presented at the Keystone on Molecular and Cellular Biology Symposia *Functional Organization of the Nucleus*, Santa Fe, N.M., February 23–28, 1997, **234**, p26.
- **Tang, Z.**, Yanagida, M., Lin, R.-J. Fission Yeast Dsk1 is an SR protein-specific kinase with roles in pre-mRNA splicing and mitosis. Abstracts of Papers presented at the meeting on *Eukaryotic mRNA Processing*, Cold Spring Harbor, N.Y, August 20–24, 1997, p. 186.
- **Tang, Z.**, Mandel, L., Yean, S.-L., and Lin, R.-J. Interactions between SR-like proteins and SR-protein-specific kinases in fission yeast. Abstracts of Papers at the Cold Spring Harbor Meeting on *Dynamic Organization of Nuclear Function*, October 7–11, 1998, p244.
- **Tang, Z.**, and Lin, R.-J. Serine/arginine-rich proteins and SR-specific kinases in fission yeast. *Yeast Genetics and Human Diseases II*, June 24–27, 1999.
- Lin, R.-J, Kuo*, T., Shen*, J., and **Tang, Z.** Functional analysis of SR phosphorylation in fission yeast. *Eukaryotic mRNA Processing*, Cold Spring Harbor, N.Y., August 25–29, 1999.
- **Tang, Z.**, Mandel, L., Yean, S.-L., Shen*, J., and Lin, R.-J. Two protein kinases in the SR networks of *S. pombe*. The First International Fission Yeast Meeting, Edinburgh, England, September 25–30, 1999.
- **Tang, Z.**, Kuo*, T., and Lin, R.-J. Dsk1 regulates interactions and functions of *S. pombe* RS domain-containing proteins. Abstracts of Papers presented at the First International Fission Yeast Meeting, Edinburgh, England, September 25–30, 1999.

- **Tang, Z.**, Mandel, L., Lin*, C., Chen*, T., Boyle*, S., Yanagida, M., and Lin, R.-J. Kic1, a CLK/STY orthologue in fission yeast, is a cytokinesis regulator and is functionally related to Dsk1. Abstracts of Papers presented at the Second International Fission Yeast Meeting, Kyoto, Japan, March 25–30, 2002.
- **Tang, Z.**, Mandel, L., Yanagida, M., and Lin, R.-J. Kinases that phosphorylate pre-mRNA splicing factors with RNA binding and arginine-serine rich domains. The Second International Fission Yeast Meeting, Kyoto, Japan, March 25–30, 2002.
- Lin, R.-J, Mandel, L., and **Tang, Z.** The Kic1 kinase of *Schizosaccharomyces pombe* is a CLK/STY orthologue that regulates cytokinesis and cell-cell contact. Abstracts of Papers presented at *The Annual Meeting of the RNA Society*, Madison, WI, May 26–31, 2002.
- **Tang, Z.**, Chiu*, C., Luc*, Q. N., Silveira*, S. A., Turner*, S. J., Tsai*, K., Kurahashi*, M., Alaei*, S., Mooney*, A., Kirkbride*, E., Yu, Y., and Lin, R.-J. SR protein-specific kinases in *S. pombe*: Dsk1 and Kic1. *Eukaryotic mRNA Processing*, Cold Spring Harbor, N.Y., August 20–24, 2003.
- Sarah Alaei*, Cathleen Chiu*, Kimberly Tsai*, Mari Kurahashi*, and **Zhaohua Tang**. SR-related proteins and SR protein-specific kinases in *S. pombe*. International Workshop for Integrated Yeast Sciences, Okinawa, Japan, March 14–20, 2004.
- Ruye Wang, Chris Dalhberg*, and **Zhaohua Tang**. An algorithm for biological network inference based on differential equation model. The international conference of Intelligent Systems for Molecular Biology (ISMB)/the European Conference on Computational Biology (ECCB), Glasgow, Scotland, UK, July 31–August 4, 2004.
- Sarah Alaei*, Cathleen Chiu*, Kimberly Tsai*, Mari Kurahashi*, Ren-Jang Lin, and **Zhaohua Irene Tang**. Cellular localization of SR-related proteins and SR protein-specific kinases in *S. pombe*. The Third International Fission Yeast Meeting, San Diego, CA, August 24–29, 2004.
- Ruye Wang and **Zhaohua Tang**. Network Inference Based on Differential Equation Model. The Moscow Conference on Computational Molecular Biology (MCCMB'05), Moscow, Russia, July 18–21, 2005.
- **Zhaohua Tang**, Sarah Alaei*, Christopher Wilson*, Cathleen Chiu*, Jessica Oya*, Janet Shin*, Hannah Buitron*, and Sara Hardy*. The Cellular Localizations of SR-Related Proteins in *Schizosaccharomyces pombe* Fission Yeast Are Affected by SR-Protein Specific Kinase Dsk1. The 45th Annual Meeting of American Society for Cell Biology, San Francisco, CA, December 10–14, 2005.
- **Zhaohua Tang**, Amy Tsurumi*, Sarah Alaei*, Heather Palomino*, Carolyn Barragan*, Benson Ngo*, Nick Huang*, and Christina Lindal*. Cellular Localization of Kic1 at Different Stages of the Cell Cycle in *Schizosaccharomyces pombe* Fission Yeast. The 45th

Annual Meeting of American Society for Cell Biology, San Francisco, CA, December 10–14, 2005.

- **Zhaohua Tang**, Amy Tsurumi*, Sarah Alaei*, Christopher Wilson*, Cathleen Chiu*, Jessica Oya*, Benson Ngo*. SR-Protein Specific Kinase Dsk1 Regulates the Cellular Localizations of SR Proteins by Phosphorylation in Fission Yeast *Schizosaccharomyces pombe*. Abstracts of Papers presented at the European Fission Yeast Meeting, Cambridge, United Kingdom, March 16–18, 2006.
- Amy Tsurumi*, Sarah Alaei*, Christopher Wilson*, Cathleen Chiu*, Jessica Oya*, Benson Ngo*, **Zhaohua Tang**. Dsk1 Kinase Phosphorylates SR Proteins and Regulates Their Cellular Localization in Fission Yeast. Abstracts of Papers presented at the Fourth International Fission Yeast Meeting, Copenhagen, Denmark, June 11–16, 2007.
- **Zhaohua Tang**, Amy Tsurumi*, Benson Ng*, Jo Murray and Antony Carr. The Orthologue of SRPK1 in Fission Yeast, Dsk1p, Complexes with Multiple Splicing Factors and Is Connected to Cell Cycle. *Eukaryotic mRNA Processing*, Cold Spring Harbor, N.Y., August 22–26, 2007.
- **Zhaohua Irene Tang**, Amy Tsurumi*, Benson Ngo*, Jessica Portillio*, Matthew Muranaka*, Jo Murray and Antony Carr. Dsk1p and Kic1p Protein Kinases: Their Associated Factors, Cellular Localizations, and Expression during the Cell Cycle in Fission Yeast. North American Regional Pombe Meeting 2008 June 6–8, 2008, Los Angeles
- Daniel Jensen*, Maria Luca*, Jean Kang*, Martin Luetzelberger, Norbert Käufer and **Zhaohua Irene Tang**. The *in vivo* Phosphorylation and Localization of Srp1p and Srp2p Splicing Factors during the Cell Cycle of *Schizosaccharomyces pombe*. North American Regional Pombe Meeting 2008 June 6–8, 2008, Los Angeles
- Maria Luca*, Jean Kang*, Ayse Guven* and **Zhaohua Irene Tang**. Dsk1 and Kic1 Kinases Complex with SR Proteins and Cwf11p in Fission Yeast *Schizosaccharomyces pombe*. At the 47th Annual Meeting of the American Society for Cell Biology, December 13–17, 2008, San Francisco.
- **Zhaohua Irene Tang**, Jessica Portillio*, Cathey Chang, Sarah Gitomer*, Deborah Jeon*, Esha Sachdev*, Teresa Wen*, Jo Murray and Antony Carr. THE EXPRESSIONS AND CELLULAR LOCALIZATIONS OF LAMMER KINASES, DSK1P AND KIC1P, DURING THE CELL CYCLE IN FISSION YEAST. The 5th International Fission Yeast Meeting, Tokyo, Japan. October 26–31, 2009.
- Ruye Wang, Jessica Portillio*, Asmaa Elkabti*, Teresa Wen*, Joanna Wang*, Sophie Wang*, and **Zhaohua Irene Tang**. SYSTEMATIC ANALYSIS OF RESPONSE PATHWAYS TO PHENOL DERIVATIVES AS ENVIRONMENTAL CHEMICALS USING PROTEIN KINASE DELETION MUTANTS IN FISSION YEAST. The 5th International Fission Yeast Meeting, Tokyo, Japan. October 26–31, 2009.

- **Zhaohua Irene Tang**, Jessica Portillio*, Asmaa Elkabti*, and Ruye Wang. Systematic Analysis of Response Pathways to Phenol Derivatives as Environmental Factors at the Kinomic and Genomic Scales. Life Sciences 3rd annual Protein and Peptide Conference (PepCon-2010), Beijing, China, March 21–23, 2010
- Laura Taggart-Murphy*, Jessica Portillio* Maria Luca*, Benson Ngo*, Cathey Chang, Heather Palomino*, Esha Sachdev*, Teresa Wen*, Jo Murray, Antony Carr, and **Zhaohua Tang**. The Cell Cycle-dependent Expression and Localization of LAMMER Kinases Dsk1p and Kic1p. The 50th Annual Meeting of Cell Biology, Philadelphia, December 11–15, 2010
- **Zhaohua Tang**, Maria Luca*, Jessica Portillio*, Ayse Guven*, Laura Taggart-Murphy*, Ren-Jang Lin, and Antony Carr. LAMMER Kinases Dsk1p and Kic1p Are Required for Efficient Pre-mRNA Splicing and Proper Localization of Poly(A) RNA. The 50th Annual Meeting of Cell Biology, Philadelphia, December 11–15, 2010
- Alex Moyzis*, Ruye Wang, Laura Taggart-Murphy*, Jessica Portillio*, Asmaa Elkabti*, Teresa Wen*, and **Zhaohua Tang**. Genetic Networks of Phenol-stress Response in Fission Yeast *Schizosaccharomyces pombe*. The 50th Annual Meeting of Cell Biology, Philadelphia, December 11–15, 2010
- Zhaohua Tang, Maria Luca*, Jessica Portillio*, Ayse Guven*, Ren-Jang Lin, and Antony Carr. SR PROTEIN-SPECIFIC KINASE DSK1P FORMS A NOVEL COMPLEX WITH PRE-MRNA PROCESSING AND CELL CYCLE FACTORS. The British Yeast Group Meeting, Brighton, United Kingdom, March 24–26, 2011.
- **Zhaohua Tang**, Maria Luca*, Jessica Portillio*, Benson Ngo*, Cathey Chang, Teresa Wen*, Johanne Murray, and Antony Carr. LAMMER Kinase Kic1p Exhibits Regulated Expression and Is Involved in Pre-mRNA Processing. Abstracts presented at the 6th International Fission Yeast Meeting, Boston, June 25–30, 2011.
- Cynthia Selassie, Gretchen Edwalds-Gilbert, Maria C. Negritto, Kathleen Purvis-Roberts and Ruye Wang and **Zhaohua Tang**. Comparative Genomic Analysis of Genetic Networks of Phenol-stress Response in Yeasts. Abstracts presented at the 7th International Fission Yeast Meeting, London, United Kingdom, June 24–29, 2013.
- **Zhaohua Tang**, Margaret Nurimba*, Bashar Alhoch*, Peter Zang*, and Michelle Ozaki*. The Functions of LAMMER-related Kinases Dsk1p and Kic1p/Lkh1p Beyond Pre-mRNA Processing. Abstracts presented at the 8th International Fission Yeast Meeting, Kobe, Japan, June 21–25, 2015.
- Peter Zang* and **Zhaohua Tang**. The SR protein-specific kinase Dsk1 plays a role in heterochromatin formation and maintenance. Abstracts presented at the American Society for Cell Biology (ASCB) Annual Meeting in San Diego, CA, December 12-16, 2015.

- Michelle Ozaki* and **Zhaohua Tang**. Dsk1 and Kic1 kinases affect pre-mRNA splicing of different genes. Abstracts presented at the American Society for Cell Biology (ASCB) Annual Meeting in San Diego, CA, December 12-16, 2015.
- Chris H. Chang* and **Zhaohua Tang**. The involvement of DNA-repair pathways in the cellular response to platinum-based anticancer drugs. Abstracts presented at the American Society for Cell Biology (ASCB) Annual Meeting in San Diego, CA, December 12-16, 2015.
- John Tyndall*, Meril Tomy* and **Zhaohua Tang**. Genomic Analysis of Cellular Sensitivity Pathways for Platinum-based Anticancer Drugs. Abstracts presented at the American Society for Cell Biology (ASCB) Annual Meeting in San Diego, CA, December 12-16, 2015.
- Michelle Ozaki*, Margaret Nurimba*, Bashar Alhoch*, Peter Zang*, and **Zhaohua Tang**. Dsk1 and Kic1 Kinases in Splicing: A Cell Cycle Connection. Invited oral presentation at Splicing 2016, Lisbon, Portugal, September 12-14, 2016.
- M. Tomy*, **Z. Tang**. The effects of Dsk1 and Kic1 protein kinases on poly(A)-binding protein in mRNA export, Abstracts presented at the American Society for Cell Biology (ASCB) Annual Meeting in San Francisco, CA, December 3-7, 2016.
- Margaret Nurimba*, Bashar Alhoch*, Peter Zang*, Michelle Ozaki*, Meril Tomy*, and **Zhaohua Tang**. Multifaceted Roles of LAMMER-related Kinases in Gene Expression. Abstracts presented at the RNA 2017, The 22nd Annual Meeting of The RNA Society in Prague, Czech Republic, May 30-June 3, 2017.

RESEARCH GRANTS AND REWARDS

Awarded

External

- | | |
|---|-------------------|
| • NIH AREA Grant | 01/01/05–12/31/07 |
| <i>Regulation of S. pombe Dsk1 and Kic1 Protein Kinases</i> | |
| Total award amount | \$197,154 |
| • NSF RUI Grant | 04/01/05–3/31/13 |
| <i>Cell-cycle Regulation of LAMMER-related Kinases</i> | |
| Total award amount | \$352,000 |

Since there were partial overlaps between the NSF and NIH projects and the amount of the grants could not be adjusted after the awards were made, I chose to keep the NSF grant.

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|---|------------------|
| • NIH AREA Grant | 09/8/17–08/31/20 |
| <i>Novel Functions of LAMMER-related Kinases in Gene Expression</i> | |
| Total award amount | \$412,415 |

Internal

Faculty Research Award, Pitzer College	2/19/02–12/31/03
<i>Initial assessment of the involvement of fission yeast Dsk1 and Kic1 kinase in the cellular sensitivity to anticancer drug cisplatin.</i>	

Total award amount	\$1,500
Keck Research Grant, W. M. Keck Science Center	2/25/02–2/25/05
<i>Fission yeast as a model organism: molecular dissecting the Dsk1-mediated signaling pathways of cellular response to anticancer drug cisplatin.</i>	
Total award amount	\$15,000
Keck Research Grant, W. M. Keck Science Center	7/1/08–12/31/11
<i>Genomic Profiling of Genes Involved in the Cellular Response Pathways to Environmental Pollution in Yeasts</i>	
As a collaborative research project with Professor Gretchen Edwalds-Gilbert and Professor Katie Purvis-Roberts	
Total award amount	\$30,000
Scripps College Faculty Research grant	07/1/10–06/10/11
<i>Genetic Networks for Environmental Stress</i>	
Total award amount	\$6,000
Scripps College Faculty Research grant	07/1/12–06/10/13
<i>Genomic Analysis of Response Networks to Platinum-based Anticancer Drugs</i>	
Total award amount	\$2,000
Keck Research Grant, W. M. Keck Science Center	7/1/012–6/30/15
<i>Comparative Analysis of Genetic Networks of Phenol-stress Response in Yeasts</i>	
As a collaborative research project with Professor Gretchen Edwalds-Gilbert	
Total award amount	\$30,000
HHMI Summer Research Grant: Comparative Genomic Analysis of Genetic Networks of Phenol-stress Response in Yeasts	2014
<u>Faculty in the collaboration group (in an alphabetical order)</u>	
Gretchen Edwalds-Gilbert, Biology, Keck Science Department	
Maria Cristina Negritto, Molecular Biology, Pomona College	
Cynthia Selassie, Chemistry, Pomona College	
Zhaohua Tang, Biology, Keck Science Department	
Ruye Wang, Computer Engineering, Harvey Mudd College	
Total award amount	\$13,000

Submitted**External**

➤ NSF RUI Grant proposal

Collaborative RUI: Genomic Analysis of Response Pathways to Phenol Derivatives

Submitted 07/09/09

Principal Investigator: Professor Zhaohua Irene Tang (Keck Science Department, Claremont Colleges)Co-investigators: Professor Gretchen Edwalds-Gilbert (Keck Science)

Professor Katie Purvis-Roberts (Keck Science)

Professor Tina Negritto (Pomona College)

Professor Ruye Wang (Harvey Mudd College)

The proposal was assigned to a wrong program for review. It was ranked at Medium Priority and was not funded.

➤ NSF RUI Grant proposal

Collaborative RUI: Comparative Genomic Analysis of Genetic Networks of Phenol-stress Response in yeasts

Submitted 07/01/10

Principal Investigator: Professor Zhaohua Irene Tang (Keck Science Department, Claremont Colleges)

Co-investigators: Professor Gretchen Edwalds-Gilbert (Keck Science)

Professor Katie Purvis-Roberts (Keck Science)

Professor Tina Negritto (Pomona College)

Professor Ruye Wang (Harvey Mudd College)

The proposal was ranked at High Priority but did not get funded.

➤ NSF RUI Grant proposal

A revised proposal was submitted to NSF on 07/08/11

Collaborative RUI: Comparative Analysis of Genetic Networks of Phenol-stress Response in Yeasts

Principal Investigator: Professor Zhaohua Irene Tang (Keck Science Department, Claremont Colleges)

Co-investigators: Professor Gretchen Edwalds-Gilbert (Keck Science)

Professor Katie Purvis-Roberts (Keck Science)

Professor Tina Negritto (Pomona College)

Professor Ruye Wang (Harvey Mudd College)

The proposal was reviewed by more reviewers with diverse opinions. It was ranked at Medium Priority and was not funded.

➤ NIH Grant proposal

Genetic Networks for Phenol Response

Submitted 03/12/10

Principal Director/Investigator: Professor Zhaohua Irene Tang (Keck Science Department, Claremont Colleges)

Principal Investigators: Professor Gretchen Edwalds-Gilbert (Keck Science)

Professor Katie Purvis-Roberts (Keck Science)

Professor Tina Negritto (Pomona College)

Professor Ruye Wang (Harvey Mudd College)

The proposal was not funded.

OTHER GRANTS AND REWARDS

Avery China Adventure Program Fund

2004

Colorful Land and Diverse Culture of Yunnan Province of China

International Workshop for Integrated Yeast Sciences, Okinawa, Japan March 14–20, 2004

A guest of the Japanese Government and selected from the international science community to attend the workshop for attracting scientists world-wide to support the development of science and technology in that region

Dean's Career Enhancement Award, Scripps College

2003–2004

Selected and invited as one of the 40 participants at the *International Workshop for Integrated Yeast Sciences*, Okinawa, Japan, March 14–20, 2004. *The Dean's Career Enhancement Award*

was originally for attending the *International Workshop for Integrated Yeast Sciences* but it was not used, since I was invited as a guest of the Japanese Government and all the expenses were provided by the Japanese Government.

INVITED TALKS AND SEMINARS

- Spring 1999, California State Polytechnic University
SR-like proteins and SR protein-specific kinases in Schizosaccharomyces pombe fission yeast
- Spring 2000, Florida International University
The interplay between cell cycle and pre-mRNA splicing
- Spring 2000, California State University, San Francisco
Fission yeast as a model system: functions of SR networks
- Fall 2000, Toledo University, Ohio
Cell cycle and pre-mRNA splicing: what has phosphorylation got to do with it?
- Spring 2001, California State University, Fullerton
SR protein-specific kinases: cell cycle connections of pre-mRNA splicing
- Fall 2003, Claremont Colleges
There is something curious about this yeast—a eukaryotic model
- Fall 2004, Scripps College Tuesday Noon Academy
Colorful Land, Diverse Cultures—A Visit to Dali, Yunnan Province, China
- August 9, 2005, College of Life Sciences at Peking University, Beijing, China
Cell-division Cycle—What Has Protein Phosphorylation Got to Do with It?
- April 18, 2007, Genome Damage and Stability Centre, University of Sussex, Brighton, UK
Splicing Regulation and the Cell Cycle Connection—Something Curious about Dsk1 and Kic1 Kinases
- June 11–16, 2007, the 4th International Fission Yeast Meeting, Copenhagen, Denmark
Dsk1 Kinase Phosphorylates SR Proteins and Regulates Their Cellular Localization in Fission Yeast
- March 21, 2010, Life Sciences 3rd Protein and Peptide Annual International Conference (PepCon-2010), Beijing, China,
Systematic Analysis of Response Pathways to Phenol Derivatives as Environmental Factors at the Kinomic and Genomic Scales
 - ❖ Also as Chair of Session 5-1: Protein Kinases and Kinome as Drug Targets-Preclinical to Clinical Trials in Symposium 5: Protein Kinase
- July 22, 2010, invited to visit and give a seminar at College of Environmental Sciences and Engineering, Peking University, Beijing, China
Genome, evolution, and environmental factors—A molecular perspective of environmental studies
- June 26, 2011, the 6th International Fission Yeast Meeting, Boston
LAMMER Kinase Kic1p Exhibits Regulated Expression and Is Involved in Pre-mRNA Processing.
 - ❖ Also as Co-chair of Session 5: Gene Expression and Signaling
- February 27, 2017, invited to give a seminar at Center of Quantitative Biology, Peking University, Beijing, China
Motorcycle First, Automobile Later—Yeast Models, Human Interests

- March 15, 2017, invited to give a seminar at Center of Quantitative Biology, Peking University, Beijing, China
From Small Molecules to Macromolecules—Environmental Stress and Cell Signaling in An Evolutionary Context

RESEARCH MENTORING

Year	First Reader	Second Reader		Notes
2000-2001	4	1		at Pomona College
2001-2002	4	1	2	
2002-2003	4	3	3	
2003-2004	2	2	3	
2004-2005	6	5	1	
2005-2006	6	4	5	
2006-2007	0	1		Sabbatical leave for 1 year
2007-2008	3	3	2	
2008-2009	6	6	2	
2009-2010	6	6	4	
2010-2011	2	2	3	Sabbatical leave for 1 semester
2011-2012	0	4	4	
2012-2013	3	1	4	Information available so far
2013-2014	4	2	3	
2014-2015	0	2	3	
2015-2016	4	2	4	
2016-2017	1	2	3	
Total	55	47	46	

Beckman Research Institute of the City of Hope

Mentoring Research (1998–2000)

1 master student, four undergraduate students

Biology Department of Pomona College

Mentoring Senior thesis (2000–2001)

First reader: 4

Second reader: 1

Keck Science Department (see table above)

Mentoring thesis advising (2001–present)

First reader: 51

Second reader: 46

Mentoring Research

Research students: 12 (students who conducted research but not or not yet senior theses in my laboratory)

Senior thesis awards

- Kimberly Tsai, Scripps '03: Assessing the potential of fission yeast protein, Kic1, as a factor required for cisplatin sensitivity
Winner of The Best Thesis Award of Biological Sciences of Scripps College, 2003
- Matthew Kushnir [2nd reader], CMC '03: Is the New Zealand muttonbird harvest sex biased? The development of a CHD-based molecular technique to sex sooty shearwater chicks
Winner of The Best Thesis Award of Biological Sciences of Claremont McKenna College, 2003
- Benson Ngo, CMC '06: Cellular Localization of Kic1 Protein Kinase in *Schizosaccharomyces pombe* at Different Stages of the Cell Cycle
Winner of The Best Thesis Award of Biological Sciences of Claremont McKenna College, 2006

- Nicole M. Duggan, Scripps '10: Investigating the Involvement of Dsk1 and Kic1 Protein Kinases in RNA interference-directed Centromere Silencing in *Schizosaccharomyces pombe*
Winner of The Best Thesis Award (Barbara McClintock Science Award) of Biological Sciences of Scripps College, 2010
- Julia Levy [2nd reader], Pitzer '12: Saccharomyces cerevisiae Resistance to Butylated Hydroxyanisole via the Vacuolar ATP-synthase Complex
Winner of The Best Thesis Award of Sciences of Pitzer College, 2012

OTHER RESEARCH-TEACHING ACTIVITIES

- A collaboration project between Katie Purvis-Roberts and Zhaohua Irene Tang supported by Melon Grant: *Development of an Integrated Laboratory: Characterization of Particulate Matter Air Pollution and the Chemical Effect of Cell Physiology.*
- Research projects for Scripps College Summer Academy (SCSA) participants of 2007 on *Genes and Environmental Stress.*
- Inter-college collaborative research with Professor Gretchen Edwalds-Gilbert (JSD), Professor Katie Purvis-Roberts (JSD), Professor Tina Negritto (Pomona College), Professor Ruye Wang (Harvey Mudd College) on *Comparative Genomic Analysis of Genetic Networks of Phenol-stress Response in Yeasts.*

OTHER PROFESSIONAL ACTIVITIES

Sigma Xi

President (2005–2006) and Vice President (2004–2005) of Claremont chapter of Sigma Xi, The Scientific Research Society

Editor

Lead Editor for the Cell Cycle and Cell Division Topic Room and a member of the Cell Biology Editorial Board in *Scitable* by *Nature EDUCATION*. Site for Editor page:

www.nature.com/scitable/topicpage/zhaohua-irene-tang-lead-editor-11629440

Site of the masthead for Members of Editorial Board: www.nature.com/scitable/about

Responsible for organizing and reviewing 15 articles launched in September 26, 2010, in addition to contributing two articles

Grant Proposal Reviewer

- Reviewed proposals for the *American Academy of Arts and Sciences (AAAS) Women's International Research Collaborations (WIRC) for Minority Serving Institutions (MSIs)* supported by the National Science Foundation (NSF).
- Reviewed a research proposal for a Vidi grant in the Innovational Research Incentives Scheme, supported by The Netherlands Organisation for Scientific Research (NWO) has received an application
- Serving as a panelist for the preliminary proposal evaluation panels of The NSF Division of Integrative Organismal Systems (IOS)

Research Journal Referee

- *Biochimica et Biophysica Acta (BBA)-Molecular Cell Research*
- *BioMed Central*

- *International Union of Biochemistry and Molecular Biology (IUBB)*
- *Eukaryotic Cell*
- *Cellular Signalling*

Educational Journal Referee

Nature EDUCATION

The Chemical Educator

External Review of Faculty

- Served as an external reviewer for faculty tenure cases in other liberal arts colleges including Denison University and Ithaca College.
- Provided a letter for full professor review for a faculty in Biology Department at Pomona College.
- Wrote a letter for promotion and award review for a faculty in Chemistry and Biochemistry Department at UCLA.
- Provided recommendations letters for colleagues in my research community for job applications.

Committees and Service

- Member of the Campus Aesthetics Committee of Pitzer, during academic year (AY) 2001–2002.
- Member of the Search Committee to fill a Cell/Molecular Biology position of the Keck Sciences Department in the fall semester, 2002
- Member of the Post Baccalaureate Admission Committee of Scripps in AY 2003–2005
- Member of the Committee on Academic Computing of CMC in AY 2004–2005
- Member of the Institutional Review Board (IRB) of CMC in AY 2005–2006
- Member of an *Ad Hoc* Review Committee for a tenure case at Pitzer in academic year (AY) 2007–2008
- Member of Keck Science Executive in AY 2007–2009 and 2013–2015
- Vice Chair of the Academic Planning Committee (APC) and the APC representative on the Budgetary Implementation Committee (BIC) at Pitzer College in AY 2007–2008
- Chair of the Academic Planning Committee at Pitzer College in AY 2008–2009
- Member of Claremont Colleges Asia Delegation March 24–April 5, 2008
- Member of the search committee for a faculty position in biochemistry in AY 2009–2010
- Member of the Hsu Fund for Academic Interactions with China Committee at Scripps College to review proposals chaired by Dean Marcus-Newhall in the spring semester 2012.
- Chair of several committees to search for a visiting faculty in biology from AY 2006–2012.
- Chair of a Department Review Committee for the third-year of a faculty member, fall, 2014.
- Member of two Department Review Committees for tenure review of two faculty members, fall, 2015.
- Member of two Department Review Committees for tenure review of two faculty members, fall, 2016.
- Member of the Reappointment, Promotion, or Tenure (RPT) Committee, AY 2015–2016.