

Curriculum Vitae

I. General Biographical Information

A. PERSONAL

Name: Qiang Tong
Citizenship: US citizen

B. EDUCATION

Sept. 1982– Jun. 1987	B.S., Biology, University of Science and Technology of China, China
Sept. 1987– Oct. 1990	M.S., Cell Biology, Shanghai Institute of Cell Biology, Chinese Academy of Sciences, China
Jan. 1992– Jun. 1997	Ph.D., Biochemistry, Ohio State University, Columbus, Ohio Thesis: "Molecular mechanism of the ret/PTC1 oncogene activation in papillary thyroid carcinomas and the characterization of the promoter of the rat sodium iodide symporter gene" (Advisor: Dr. Sissy M. Jhiang)
Jul. 1997– Oct. 2002	Postdoctoral training, Division of Biological Sciences and Department of Nutrition, School of Public Health, Harvard University, Boston, Massachusetts (Advisor: Dr. Gökhan S. Hotamisligil)

C. ACADEMIC APPOINTMENT

2012 – 2025	Associate Professor, Department of Pediatrics, Baylor College of Medicine, December 2011 Joint appointment: Department of Medicine, Baylor College of Medicine, October 2006 Joint appointment: Department of Molecular Physiology & Biophysics, Baylor College of Medicine, May 2007
2002 – 2011	Assistant Professor, Department of Pediatrics, Baylor College of Medicine,

D. OTHER ADVANCED TRAINING/EXPERIENCE

Formal Sabbatical Leave Not applicable

Other Specialized training following academic appointment Not applicable

E. OTHER INFORMATION

Honors or Awards

2000	Burrough Wellcome Fund Travel Award, Endocrine Society's ENDO 2000 Annual Meeting in Toronto, Canada.
2002	Keystone Symposium Travel Award, Keystone Symposium: Molecular Control of Adipogenesis and Obesity, Keystone, Colorado.

Board Eligibility/Certification Not applicable

Other Non-academic Positions: (with locations, titles, dates of employment)

Shanghai Huaxing Biological Engineering Research Institute, China, Research Scientist,
2000-2001

II. Research Information

A. RESEARCH FUNDING

“GATA Transcription Factors and Adipogenesis”
NIH Individual National Research Service Award (1F32DK009940),
Postdoctoral Fellow
1999–2001
Grant

“Akt Regulates Adipogenesis through GATA Phosphorylation”
Gillson Longenbaugh Foundation Baylor Seed Fund
Principal Investigator
Annual Direct Cost: \$27,500 /Direct Cost for Overall Period: \$27,500
2003-2004
Grant

“Role of GATA Protein Complexes in Adipocyte Differentiation”
US Department of Agriculture (CRIS 6250-51000-049)
Annual Direct Cost: \$191,641
Co-Principal Investigator
2004-2009
Grant

“Metabolic Regulatory Action of Sirtuins”
Bristol-Myers Squibb/Mead Johnson Unrestricted Nutrition Research Grant.
Annual Direct Cost: \$50,000
Principal Investigator
10/2004-10/2006.
Grant

“SIRT3 Regulation of Glucose and Lipid Metabolism in the Skeletal Muscle”
Baylor Diabetes Endocrinology Research Center-Pilot & Feasibility Grant
Annual Direct Cost: \$50,000 /Direct Cost for Overall Period: \$50,000
Principal Investigator
2006-2007
Grant

“Metabolic Regulation of Cardiac Function by SIRT3, a Mitochondrial NAD-Dependent Deacetylase”
American Heart Association (0665162Y)
Annual Direct Cost: \$59,090 /Direct Cost for Overall Period: \$118,180

Principal Investigator
2006-2008
Grant

“The Regulation of Mitochondrial Function by SIRT3”
National Institute of Health (1R01 DK075978)
Annual Direct Cost: \$185,000 /Direct Cost for Overall Period: \$937,000
Principal Investigator
2006-2011
Grant

“SIRT2 Deacetylase Activates Oxidative Stress Resistance”
Baylor Johan A. Hartford Foundation Center of Excellence in Geriatrics Pilot Project Program
Annual Direct Cost: \$25,000 /Direct Cost for Overall Period: \$25,000
Principal Investigator
2007-2008
Grant

“Metabolic Regulation in Obesity Development”
US Department of Agriculture (CRIS 6250-51000-055)
Annual Direct Cost: \$190,262
Co-Principal Investigator
2009-2014
Grant

“Direct Regulation of Insulin Receptor by SIRT2 Deacetylase”
American Heart Association (13GRNT17220055)
Annual Direct Cost: \$63,636 /Direct Cost for Overall Period: \$ 127,273
Principal Investigator
2013-2015
Grant

“Metabolic Pathways in Obesity”
US Department of Agriculture (CRIS 6250-51000-040)
Annual Direct Cost: \$190,262
Co-Principal Investigator
2014-2019
Grant

“Targeting adipocyte-secreted chemerin for chemotherapy resistance in myeloma”
National Institute of Health (R01CA190863)
Co-Investigator (PI: Yang, Jing)
Annual Direct Cost: \$7,101
7/3/2015 – 6/30/2020
Grant

“Role of integrin VLA-6 in suppression of bone formation in myeloma”
National Institute of Health (1R01CA193362)
Co-Investigator (PI: Yang, Jing)
Annual Direct Cost: \$7,101
2/1/2016 – 1/31/2021

Grant

"Metabolic Regulation by Transcription Factor PU.1"
American Heart Association (18TPA34170539)
Annual Direct Cost: \$90,909 /Direct Cost for Overall Period: \$ 272,727
Principal Investigator
2018-2021
Grant

"Genetic and functional investigation of supraclavicular brown adipose tissue"
NIH (1R01DK116899-01A1)
Annual direct cost: \$7,101
01/18/2019-12/31/2023
Co-Investigator (PI: Chen, Miao-Hsueh)
Grant

"Molecular Mechanisms in Diet-Related Chronic Disease"
US Department of Agriculture (CRIS 3092-51000-065-003S)
06/01/2024 – 06/30/2025
Co-PI
Grant

B. NATIONAL SCIENTIFIC PARTICIPATION: (include dates and titles)

Journal editorial boards, etc.

Editorial Board, Journal of Endocrinology, Diabetes & Obesity
Editorial Board, Obesity: Open Access
Review Editor, Frontiers in Genetics of Aging

Review panels, etc.

Advisory Board

The American Federation for Aging Research (AFAR) National Scientific Advisory Council (NSAC), 2013-now

Grant review for

American Heart Association, 2008, 2014-2023
China Science Foundation, 2009
Diabetes UK, 2011
NIH-NIDDK Special Emphasis Panel, 2009, 2012
The American Federation for Aging Research, 2013
The Hamner Institutes for Health Sciences, 2006
The Wellcome Trust - India Alliance, September 2011, 2015, 2018
University of Michigan Geriatrics Center, 2009
University of Michigan Nathan Shock Center, 2011
U. S. Army Research Office, 2007

Paper review for

Adipocyte
Aging Cell

American Journal of Physiology
Apoptosis
Biochemistry
Biochemistry and Cell Biology
Biology of the Cell
Cell Cycle
Cell Metabolism
Cell Research
Cellular and Molecular Life Sciences
Chemical Biology & Drug Design
Diabetes
EMBO J
FASEB J
FEBS Letter
Free Radical Biology & Medicine
Gene
International Journal of Obesity
Lipids
Journal of Biological Chemistry
Journal of Cellular Biochemistry
Journal of Cellular Physiology
Journal of Neurochemistry
Journal of Nutrition
Journal of Thermal Biology
Mitochondria
Molecular and Cellular Biology
Molecular Biology of the Cell
Molecular Biology Reports
Molecular Endocrinology
Molecular Metabolism
Nature Cell Biology
Nature Communication
Obesity Research
PLoS Biology
PLoS Genetics
PLoS One
PNAS
PPAR Research
Science
Scientific Reports
Stress
Trends in Biochemical Sciences
Trends in Endocrinology and Metabolism

Professional Societies

Member, National Scientific Advisory Council of American Federation of Aging Research (AFAR)
Member of the American Diabetes Association
Member of the American Heart Association

Invited lectures, presentations, research seminars**National**

- May 15, 2002 “GATA Transcription Factors in Adipogenesis”, Vanderbilt University, Nashville, Tennessee.
- Apr. 3, 2006 “Metabolic Regulation of SIRT3, A Mitochondrial NAD-Dependent Deacetylase”, Keystone Symposium - Metabolomics: From Bioenergetics to Apoptosis, Snowbird, Utah.
- Jun. 18, 2008 “Through Cold and Food Restriction - A Tale of Two Sirtuins”, Methodist Hospital, Houston, Texas.
- Apr. 29, 2009 “Functions of SIRT2 and SIRT3”, “Molecular Biology of Sirtuins”, Banbury Center, Cold Spring Harbor Laboratory, New York.
- May 14, 2009 “The Metabolic Regulatory Functions of SIRT2 and SIRT3”, Institute of Biosciences and Technology, Texas A&M University, Houston, Texas.
- Oct. 21, 2009 “Regulation of Oxidative Stress and Metabolism by SIRT2 and SIRT3”, Biology of Aging Seminar Series, Huffington Center of Aging, Baylor College of Medicine.
- Feb.19, 2010 “Sirtuin Deacetylases and Adipose Tissue”, The Brown Foundation Institute of Molecular Medicine, UT Health Science Center at Houston.
- Mar.10, 2010 “The Metabolic Regulatory Function of SIRT3”, Molecular and Cellular Biology Department Seminar, Baylor College of Medicine.
- Nov. 19, 2010 “A Tale of Two Sirtuins on Oxidative Stress and Metabolic Regulation”, Ohio State University, Columbus, Ohio
- Apr. 21, 2011 “Functions of Sirtuin Deacetylases and PU.1 Transcription Factor in the Adipose Tissue” Diabetes, Obesity & Metabolic Disorders Research Meeting, University of Texas Medical Branch, Galveston, Texas
- June 10, 2011 “Functions of PU.1 Transcription Factor and Sirtuin Deacetylases In The Adipose Tissue”, Endocrine Research Seminar, The University of Texas MD Anderson, Houston, Texas
- Mar.1, 2012 “Regulation of Insulin Signaling Pathway by SIRT2”, Molecular and Cellular Biology Department R&D Seminar, Baylor College of Medicine.
- Aug. 6, 2012 “Regulation of Insulin Signaling Pathway by SIRT2”, Pediatric Gastroenterology Research Workshop, Baylor College of Medicine.
- Nov. 7, 2012 “Function of PU.1 Transcription Factor In Adipocytes”, Methodist Hospital Research Institute.
- Apr. 29, 2013 “Regulation of Muscle Function by SIRT2 and SIRT3”, University of Texas Medical School at Houston.
- Dec.1, 2016 “A Tale of Two Sirtuins in Mediating the Effects of Caloric Restriction” James T. Willerson, M.D., Cardiovascular Seminar, Texas Heart Institute, Houston, Texas
- Sept.19, 2018 “A Tale of Two Sirtuins - The Regulation of Metabolism and Aging” Nebraska Center for the Prevention of Obesity Diseases Seminar Series, University of Nebraska – Lincoln
- Oct. 15, 2019 “Regulation of Metabolism and Aging by Sirtuins”, 4th Annual Aging Research Symposium, Houston, Texas
- Oct. 28, 2019 “A Tale of Two Sirtuins – The Regulation of Metabolism and Aging”, University of Texas Health Science Center, School of Public Health, Human Genetics Center, Houston, Texas.
- May 27, 2020 “A Tale of Two Sirtuins – The Regulation of Metabolism and Aging”, University of Texas Health Science Center, The Brown Foundation Institute of Molecular Medicine, Houston, Texas.

April 22, 2021 “A Tale of Two Sirtuins – The Regulation of Metabolism and Aging” Tulane Center for Aging, Tulane University School of Medicine, New Orleans, Louisiana

International

- Oct. 2006 “Molecular Function of Sirtuin Genes under Dietary Restriction, Cold and Oxidative Stress”, Jiao Tong University Medical School, Shanghai, China.
- Oct. 2006 “Molecular Function of Sirtuin Genes under Dietary Restriction, Cold and Oxidative Stress”, Fudan University Medical School, Shanghai, China.
- Oct. 2006 “A Tale of Two Sirtuin Genes under Food Restriction, Cold and Oxidative Stress”, Institute for Nutritional Sciences, Chinese Academy of Sciences, Shanghai, China.
- Nov. 2, 2009 “A Tale of Two Sirtuins - Regulation of Oxidative Stress and Metabolism”, Hannover Medical School, Hannover, Germany.
- Nov. 4, 2009 “A Tale of Two Sirtuins - Regulation of Oxidative Stress and Metabolism”, Erasmus University Medical Center, Rotterdam, Netherland.
- Jun.18, 2010 “Metabolic Regulatory Functions of SIRT3 Deacetylase”, Fudan University Medical School, Shanghai, China.
- Jun.30, 2010 “Metabolic Regulatory Functions of SIRT3 Deacetylase”, Eastern China Normal University, Shanghai, China.
- Jun. 17, 2012 “Regulation of Insulin Signaling Pathway by SIRT2”, Northwestern University of Agriculture and Forestry, Yanglin, China
- Jun. 23, 2014 “Regulation of Insulin Signaling and Glucose Homeostasis by Two Sirtuins”, Institute of Health Sciences, Chinese Academy of Sciences, Shanghai, China
- Jul. 1, 2014 “The Function of PU.1 Transcription Factor in Adipose Tissue”, Northwestern University of Agriculture and Forestry, Yanglin, China
- Jul. 3, 2014 “Regulation of Insulin Signaling and Glucose Homeostasis by Two Sirtuins”, Life Sciences Institute, Zhejiang University, Hangzhou, China
- Jun. 3, 2016 “The Metabolic Regulatory Function of PU.1 Transcription Factor in Adipocytes”, Department of Pathophysiology, Chinese Second Military Medical University, Shanghai, China
- Jun. 15, 2016 “The Metabolic Regulatory Function of PU.1 Transcription Factor in Adipocytes”, Wuhan University Medical School, Wuhan, China
- Jun. 16, 2016 “A Tale of Two Sirtuins In Metabolic Regulation And Aging”, Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China
- Jun. 24, 2016 “A Tale of Two Sirtuins In Metabolic Regulation And Aging”, Shanghai Institute for Advanced Immunochemical Studies, ShanghaiTech University, Shanghai, China
- Feb. 18, 2019 “A Tale of Two Sirtuins -The Regulation of Metabolism and Aging”, Shangdong University Medical School, Jinan, China

C. PUBLICATIONS

1. Full Papers

Published in Peer Review Journals

1. Xi-rui Ge, Jue Wang, Yu-fang Che, **Qiang Tong**, Shu LZ, Zhang TM, and Lo JM (1988) Monoclonal antibodies distinguishing human small cell lung cancer from non-small cell lung cancer. *Acta Biologiae Experimentalis Sinica*, 21(2): 251-255. (in Chinese)

2. **Qiang Tong** and Xi-rui Ge (1991) The effect of neuropeptides substance K and substance P on murine spenocytes and thymocytes. *Chinese Journal of Immunology*, 7(5): 263-267. (in Chinese)
3. Sissy M. Jhiang, Linda Fithian, Patria Smanik, Jeffrey Mcgill, **Qiang Tong** and Ernest L. Mazzaferri (1993) Cloning of the human taurine transporter and characterization of taurine uptake in thyroid cells. *FEBS Letters*, 318(2): 139-144.
4. Shunhua Xing, **Qiang Tong**, Toshimitsu Suzuki and Sissy M Jhiang (1994) Alternative splicing of the RET proto-oncogene at intron 4. *Biochemical And Biophysical Research Communications*, 205(3): 1526-1532.
5. **Qiang Tong**, Yishuan li, Patricia A Sminik, Linda Fithian, Shunhua Xing, Ernest L Mazzaferri and Sissy M Jhiang (1995) Characterization of promoter region and oligomerization domain of H4(D10S170), a gene frequently rearranged with the ret proto-oncogene. *Oncogene*, 10: 1781-1787.
6. Sissy M Jhiang, John E Sagartz, **Qiang Tong**, Jan Parker-Thornburg, Charles C. Capen, Je-Yoel Cho, Shunhua Xing and Catherine Ledent (1996) Targeted expression of the ret/PTC1 oncogene induces papillary thyroid carcinomas. *Endocrinology*, 137(1): 375-378.
7. G. H. Jossart, B. O'Brien, J.-F. Cheng, **Qiang Tong**, S.M. Jhiang, Q. Duh, O.H. Clark and H.-U.G. Weier (1996) A novel multicolor hybridization scheme applied to localization of transcribed sequence (D10S170/H4) and deletion mapping in the thyroid cancer cell line TPC-1. *Cytogenetics and Cell Genetics*, 75: 254-257.
8. John E. Sagartz, Sissy M. Jhiang, **Qiang Tong**, and Charles C. Capen (1997) Thyroid stimulating hormone promotes growth of thyroid carcinomas in transgenic mice with targeted expression of the ret/PTC1 oncogene. *Laboratory Investigation*, 76: 307-318.
9. **Qiang Tong**, Shunhua Xing and Sissy M. Jhiang (1997) Leucine zipper mediated dimerization is essential for the hyperphosphorylation and oncogenic activity of PTC1 oncoprotein. *The Journal of Biological Chemistry*, 272: 9043-9047.
10. **Qiang Tong**, Kwon-Yul Ryu and Sissy M. Jhiang (1997) Characterization of the promoter of rat Na⁺/I⁻ symporter gene. *Biochemical and Biophysical Research Communications*, 239: 34-41.
11. Shunhua Xing, Tara L. Furminger, **Qiang Tong** and Sissy M. Jhiang (1997) Signal transduction pathways activated by RET in PC12 cells. *J Biol Chem*, 273: 4909-4914.
12. K.-Y. Ryu, **Qiang Tong** and S.M. Jhiang (1998) Promoter characterization of the human Na⁺/I⁻ symporter. *J. Clin. Endo. Metab.* 83: 3247-51.
13. S.M. Jhiang, J.Y. Cho, T.L. Furminger, J.E. Sagartz, **Qiang Tong**, C.C. Capen, E.L.Mazzaferri, (1998) Thyroid carcinomas in RET/PTC transgenic mice. *Recent Results in Cancer Research*. 154:265-70.

14. **Qiang Tong**, Gökhan Dalgin, Haiyan Xu, Chao-Nan Ting, Jeffrey M. Leiden and Gökhan S. Hotamisligil (2000) Function of GATA Transcription Factors in Preadipocyte-Adipocyte Transition. *Science*, 290: 134-138.
15. James M. Way, Cem Z. Görgün, **Qiang Tong**, K. Teoman Uysal, Kathleen K. Brown, W. Wallace Harrington, William R. Oliver, Jr., Timothy M. Willson, Steven A. Kliewer, and Gökhan S. Hotamisligil (2001) Adipose Tissue Resistin Expression Is Severely Suppressed in Obesity and Stimulated by Peroxisome Proliferator-activated Receptor Agonists. *The Journal of Biological Chemistry*. 276: 25651-25653.
16. **Qiang Tong** and Gökhan S. Hotamisligil (2001) Molecular Mechanisms of Adipocyte Differentiation. *Reviews in Endocrine & Metabolic Disorders*. 2:349-355.
17. **Qiang Tong**, Judy Tsai, Gökhan S. Hotamisligil (2003) GATA transcription factors and fat cell formation. *Drug News Perspect*. 16(9):585-8.
18. **Qiang Tong**, Jean-Louis Sankalé, Colleen M. Hadigan, Guo Tan, Eric S. Rosenberg, Phyllis J. Kanki, Steven K. Grinspoon, Gökhan S. Hotamisligil (2003) Regulation of adiponectin in human immunodeficiency virus-infected patients: relationship to body composition and metabolic indices. *J Clin Endocrinol Metab*. 88(4):1559-64.
19. **Qiang Tong***, Judy Tsai*, Guo Tan, Gökhan Dalgin, and Gökhan S. Hotamisligil (2005) Interaction Between GATA and C/EBP Family of Transcription Factors is Critical in GATA-Mediated Suppression of Adipocyte Differentiation. *Molecular and Cellular Biology*, 25(2):706-715. (*equal contribution)
20. Tong Shi, Fei Wang, Emily Stieren, **Qiang Tong** (2005) SIRT3, A Mitochondrial Sirtuin Deacetylase, Regulates Mitochondrial Function And Thermogenesis In Brown Adipocytes. *J Biol Chem*. 280(14):13560-13567.
21. Judy Tsai, **Qiang Tong**, Guo Tan, Aaron N. Chang, Stuart H. Orkin and Gökhan S. Hotamisligil (2005) GATA-2 Suppresses Differentiation and Adrenergic Response in Brown Adipocytes, *EMBO Reports*, 6(9):879-84.
22. Jean-Louis G. Sankalé, **Qiang Tong**, Colleen M. Hadigan, Guo Tan, Steven K. Grinspoon, Phyllis J. Kanki, Gökhan S. Hotamisligil (2006) Regulation of Adiponectin in Adipocytes Upon Exposure to HIV-1. *HIV Medicine*. 74:268-274.
23. Fei Wang, Margaret Nguyen, F. Xiao-Feng Qin, and **Qiang Tong** (2007) SIRT2 Deacetylates FOXO3a in Response to Oxidative Stress and Caloric Restriction. *Aging Cell*, 6:505-14.
24. Fei Wang and **Qiang Tong** (2008) Transcription Factor PU.1 Is Expressed in White Adipose and Inhibits Adipocyte Differentiation. *Am J Physiol-Cell Physiol*, 295:C213-20.
25. Fei Wang and **Qiang Tong** (2009) SIRT2 Suppresses Adipocyte Differentiation by Deacetylating Foxo1 And Enhancing Foxo1's Repressive Interaction With PPARγ. *Mol. Biol. Cell*, 20:801-8.
26. Julia Skokowa, Dan Lan, Basant Kumar Thakur, Fei Wang, Kshama Gupta, Gunnar Cario, Annette Muller Brechlin, Axel Schambach, Lars Hinrichsen, Gustav Meyer, Matthias Gaestel,

- Martin Stanulla, **Qiang Tong** and Karl Welte (2009) NAMPT is essential for the G-CSF-induced myeloid differentiation via a NAD⁺-sirtuin-1-dependent pathway. *Nature Medicine*, 15:151-8. **23**.
27. Dina Bellizzi, Giuseppina Covello, Fausta Di Cianni, **Qiang Tong**, Giovanna de Benedictis (2009) Identification of GATA2 and AP-1 activator elements within the enhancer VNTR occurring in intron 5 of the human SIRT3 gene. *Mol Cells*, 28:87-92.
28. Orsolya M. Palacios, Juan J. Carmona, Shaday Michan, Ke Yun Chen, Yasuko Manabe, Jack Lee Ward III, Laurie J. Goodyear, and **Qiang Tong** (2009) Diet and exercise signals regulate SIRT3 and activate AMPK and PGC-1 α , in skeletal muscle, *Aging*, 1:771-783.
29. Huseyin Cimen, Min-Joon Han, Yongjie Yang, **Qiang Tong**, Hasan Koc and Emine C. Koc (2010) Regulation of Succinate Dehydrogenase Activity by SIRT3 in Mammalian Mitochondria. *Biochemistry*, 49(2):304-11.
30. Yongjie Yang, Huseyin Cimen, Min-Joon Han, Tong Shi, Jian-Hong Deng, Hasan Koc, Orsolya M. Palacios, Laura Montier, Yidong Bai, **Qiang Tong*** and Emine C. Koc* (2010) NAD⁺-dependent deacetylase SIRT3 regulates mitochondrial protein synthesis by deacetylation of the ribosomal protein MRPL10. *J Biol Chem*. 285(10):7417-29 (*co-corresponding authors)
31. Yongjie Yang, Basil P. Hubbard, David A. Sinclair, **Qiang Tong** (2010) Characterization of murine SIRT3 transcript variants and corresponding protein products. *J Cell Biochem*. 111(4):1051-8.
32. Xue Gao, Yong-Hyun Shin, Min Li, Fei Wang, **Qiang Tong**, and Pumin Zhang (2010) The Fat Mass and Obesity Associated Gene FTO Functions in the Brain to Regulate Postnatal Growth in Mice. *PLoS One*, 5:e14005.
33. Yongjie Yang, Ke Yun Chen, **Qiang Tong** (2011) Murine Sirt3 protein isoforms have variable half-lives. *Gene*, 488(1-2):46-51.
34. Ligen Lin, Pradip K. Saha, Xiaojun Ma, Iyabo O. Henshaw, Longjiang Shao, Benny H. J. Chang, Eric D. Buras, **Qiang Tong**, Lawrence Chan, Owen P. McGuinness, and Yuxiang Sun (2011) Ablation of ghrelin receptor reduces adiposity and improves insulin sensitivity during aging by regulating fat metabolism in white and brown adipose tissues. *Aging Cell*, 10(6):996-1010.
35. Fei Wang, Chia-Hsin Chan, Keyun Chen, Xinfu Guan, Hui-Kuan Lin, **Qiang Tong** (2012) Deacetylation of FOXO3 by SIRT1 or SIRT2 Leads to Skp2-Mediated FOXO3 Ubiquitination and Degradation. *Oncogene*, 31:1546–1557. PMID: 21841822
36. Ligen Lin, Weijun Pang, Keyun Chen, Fei Wang, Jon Gengler, Yuxiang Sun, and **Qiang Tong** (2012) Adipocyte Expression of PU.1 Transcription Factor Causes Insulin Resistance through Up-regulation of Inflammatory Cytokine Gene Expression and ROS Production. *Am J Physiol-Endocrinology and Metabolism*, 302: E1550-E1559. PMCID: PMC3378156
37. Pang WJ, Xiong Y, Wang Y, **Tong Q**, Yang GS. (2013) Sirt1 attenuates camptothecin-induced apoptosis through caspase-3 pathway in porcine preadipocytes. *Exp Cell Res*. 319(5):670-83. PMID:23313858
38. Serrano L, Martínez-Redondo P, Marazuela-Duque A, Vazquez BN, Dooley SJ, Voigt P, Beck DB, Kane-Goldsmith N, **Tong Q**, Rabanal RM, Fondevila D, Muñoz P, Krüger M, Tischfield

- JA, Vaquero A. (2013) The tumor suppressor SirT2 regulates cell cycle progression and genome stability by modulating the mitotic deposition of H4K20 methylation. *Genes & Development*. 27(6):639-53.
39. Miao-Hsueh Chen, **Qiang Tong** (2013) “An Update on the Regulation of Adipogenesis”. *Drug Discovery Today: Disease Mechanisms*, 10:e15-e19.
40. Ligen Lin, Keyun Chen, Waed Abdel Khalek, Jack Lee Ward III, Henry Yang, Béatrice Chabi, Chantal Wrutniak-Cabello, **Qiang Tong** (2014) Regulation of skeletal muscle oxidative capacity and muscle mass by SIR T3, *PLOS One*, 9(1):e85636.
41. Pan JS, Huang L, Belousova T, Lu L, Yang Y, Reddel R, Chang A, Ju H, DiMattia G, **Tong Q**, Sheikh-Hamad D. (2014) Stanniocalcin-1 Inhibits Renal Ischemia/Reperfusion Injury via an AMP-Activated Protein Kinase-Dependent Pathway. *J Am Soc Nephrol*. 26(2):364-78.
42. Cheung KG, Cole LK, Xiang B, Chen K, Ma X, Myal Y, Hatch GM, **Tong Q**, Dolinsky VW. (2015) SIRT3 attenuates doxorubicin-induced oxidative stress and improves mitochondrial respiration in H9c2 cardiomyocytes. *J Biol Chem*. 290, 10981-10993.
43. Nosavanh L, Yu DH, Jaehnig EJ, **Tong Q**, Shen L, Chen MH. (2015) Cell-autonomous activation of Hedgehog signaling inhibits brown adipose tissue development. *Proc Natl Acad Sci USA*. 112(16):5069-74.
44. Zhiqiang Liu, Jingda Xu, Jin He, Huan Liu, Pei Lin, Xinhai Wan, Nora M. Navone, **Qiang Tong**, Larry W. Kwak, Robert Z. Orlowski, Jing Yang (2015) Mature adipocytes in bone marrow protect myeloma cells against chemotherapy through autophagy activation, *Oncotarget*, 6(33):34329-41. doi: 10.18632/oncotarget.6020.
45. Rubel CA, Wu SP, Lin L, Wang T, Lanz RB, Li X, Kommagani R, Franco HL, Camper SA, **Tong Q**, Jeong JW, Lydon JP, DeMayo FJ A (2016) Gata2-Dependent Transcription Network Regulates Uterine Progesterone Responsiveness and Endometrial Function. *Cell Rep*. 17(5):1414-1425. doi: 10.1016/j.celrep.2016.09.093. PMID: 27783953, PMCID: PMC5084852
46. de Oliveira RM, Vicente Miranda H, Francelle L, Pinho R, Szegő ÉM, Martinho R, Munari F, Lázaro DF, Moniot S, Guerreiro P, Fonseca-Ornelas L, Marijanovic Z, Antas P, Gerhardt E, Enguita FJ, Fauvet B, Penque D, Pais TF, **Tong Q**, Becker S, Kügler S, Lashuel HA, Steegborn C, Zweckstetter M, Outeiro TF. (2017) The mechanism of sirtuin 2-mediated exacerbation of alpha-synuclein toxicity in models of Parkinson disease. *PLoS Biol*. 15(3):e2000374. PMID: 28257421 PMCID: PMC5336201
47. Mo Q, Salley J, Roshan T, Baer LA, May FJ, Jaehnig EJ, Lehnig AC, Guo X, **Tong Q**, Nuotio-Antar AM, Shamsi F, Tseng YH, Stanford KI, Chen MH (2017) Identification and characterization of a supraclavicular brown adipose tissue in mice. *JCI Insight*. 2(11). pii: 93166. PMID: 28570265 PMCID: PMC5453704
48. Liu J, Li D, Zhang T, **Tong Q**, Ye RD, Lin L. (2017) SIRT3 protects hepatocytes from oxidative injury by enhancing ROS scavenging and mitochondrial integrity. *Cell Death Dis*. 8(10):e3158. doi: 10.1038/cddis.2017.564. PMID: 29072685, PMCID: PMC5680927
49. Li GL, Chen HJ, Zhang WX, **Tong Q**, Yan YE. (2017) Effects of maternal omega-3 fatty acids supplementation during pregnancy/lactation on body composition of the offspring: A

- systematic review and meta-analysis. *Clin Nutr.* pii: S0261-5614(17)30269-8. doi: 10.1016/j.clnu.2017.08.002. PMID: 28830700
50. Cao J, Yu Y, Zhang Z, Chen X, Hu Z, Tong Q, Chang J, Feng XH, Lin X. (2018) SCP4 Promotes Gluconeogenesis Through FoxO1/3a Dephosphorylation. *Diabetes.* 67(1):46-57. doi: 10.2337/db17-0546, PMID: 28851713, PMCID: PMC5741142
51. Chabi B, Fouret G, Lecomte J, Cortade F, Pessemesse L, Baati N, Coudray C, Lin L, **Tong Q**, Wrutniak-Cabello C, Casas F, Feillet-Coudray C. (2018) Skeletal muscle overexpression of short isoform Sirt3 altered mitochondrial cardiolipin content and fatty acid composition. *J Bioenerg Biomembr.* 50(2):131-142. doi: 10.1007/s10863-018-9752-1. PMID: 29589261
52. Li Q, Lei F, Tang Y, Pan JS, **Tong Q**, Sun Y, Sheikh-Hamad D (2018) Megalin mediates plasma membrane to mitochondria cross-talk and regulates mitochondrial metabolism. *Cell Mol Life Sci.* 75(21):4021-4040. doi: 10.1007/s00018-018-2847-3. PMID: 29916093
53. Liu JX, Shen SN, **Tong Q**, Wang YT, Lin LG. (2018) Honokiol protects hepatocytes from oxidative injury through mitochondrial deacetylase SIRT3. *Eur J Pharmacol.* 5;834:176-187. doi: 10.1016/j.ejphar.2018.07.036. PMID: 30036533
54. Huan Liu , Jin He, Su Pin Koh, Yuping Zhong, Zhiqiang Liu, Zhiqiang Wang, Yujin Zhang, Zongwei Li, Bjorn T. Tam, Pei Lin, Min Xiao, Ken H. Young, Behrang Amini, Michael W. Starbuck, Hans C. Lee, Nora M. Navone, Richard E. Davis, **Qiang Tong**, P. Leif Bergsagel, Jian Hou, Qing Yi, Robert Z. Orlowski, Robert F. Gagel, Jing Yang (2019) “Reprogrammed marrow adipocytes contribute to myeloma-induced bone disease” *Science Translational Medicine* 11 (494):eaau9087, DOI: 10.1126/scitranslmed.aau9087, PMID: 31142679, PMCID: PMC6999853
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57. Zhang T, Liu J, **Tong Q**, Lin L. (2020) “SIRT3 Acts as a Positive Autophagy Regulator to Promote Lipid Mobilization in Adipocytes via Activating AMPK.” *Int J Mol Sci.* 21(2). pii: E372. doi: 10.3390/ijms21020372. PMID: 31936019, PMCID: PMC7013837
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60. Sarmistha Mukherjee, James Mo, Lauren M Paoletta, Caroline E Perry, Jade Toth, Mindy M Hugo, Qingwei Chu, **Qiang Tong**, Karthikeyani Chellappa, Joseph A Baur (2021) SIRT3 is

required for liver regeneration but not for the beneficial effect of nicotinamide riboside. *JCI Insight*, 6(7):e147193. doi: 10.1172/jci.insight.147193.PMID: 33690226 PMCID: PMC8119200 DOI: 10.1172/jci.insight.147193

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63. Chen K, De Angulo A, Guo X, More A, Ochsner SA, Lopez E, Saul D, Pang W, Sun Y, McKenna NJ*, **Tong Q.*** (2022) Adipocyte-Specific Ablation of PU.1 Promotes Energy Expenditure and Ameliorates Metabolic Syndrome in Aging Mice. *Frontiers in Aging*. 2:803482 PMID: 35822007, PMCID: PMC9261351, DOI: 10.3389/fragi.2021.803482 (*co-corresponding authors)

64. Guo X*, Jiang X, Chen K, Liang Q, Zhang S, Zheng J, Ma X, Jiang H, Wu H, **Tong Q.*** (2022) The Role of Palmitoleic Acid in Regulating Hepatic Gluconeogenesis through SIRT3 in Obese Mice. *Nutrients*.14(7). doi: 10.3390/nu14071482. PubMed PMID: 35406095; PubMed Central PMCID: PMC9003329 (*co-corresponding authors)

65. Tomczyk MM, Cheung KG, Xiang B, Tamanna N, Fonseca Teixeira AL, Agarwal P, Kereliuk SM, Spicer V, Lin L, Treberg J, **Tong Q***, Dolinsky VW.* (2022) Mitochondrial Sirtuin-3 (SIRT3) Prevents Doxorubicin-Induced Dilated Cardiomyopathy by Modulating Protein Acetylation and Oxidative Stress. *Circ Heart Fail*. 15(5):e008547. doi: 10.1161/CIRCHEARTFAILURE.121.008547. Epub 2022 Apr 14. PubMed PMID: 35418250; PubMed Central PMCID: PMC9117478. (*co-corresponding authors)

66. Garcia Castro DR, Mazuk JR, Heine EM, Simpson D, Pinches RS, Lozzi C, Hoffman K, Morrin P, Mathis D, Lebedev MV, Nissley E, Han KH, Farmer T, Merry DE, **Tong Q**, Pennuto M, Montie HL. (2023) *iScience*. 26(8):107375. doi: 10.1016/j.isci.2023.107375, PMID: 37599829 PMCID: PMC10433013

Accepted or in Press

Not Applicable

2. Other Full Papers

Published Without Review by Peer Group

1. **Qiang Tong** and Gökhan S. Hotamisligil (2007) Cell fate in the mammary gland. *Nature* 15; 445(7129):724-6.
2. Baur JA, Chen D, Chini EN, Chua K, Cohen HY, de Cabo R, Deng C, Dimmeler S, Gius D, Guarente LP, Helfand SL, Imai S, Itoh H, Kadowaki T, Koya D, Leeuwenburgh C, McBurney M, Nabeshima Y, Neri C, Oberdoerffer P, Pestell RG, Rogina B, Sadoshima J, Sartorelli V,

Serrano M, Sinclair DA, Steegborn C, Tatar M, Tissenbaum HA, **Tong Q**, Tsubota K, Vaquero A, Verdin E. (2010) Dietary restriction: standing up for sirtuins. *Science*. 329:1012-3

In Preparation Not Applicable

3. Abstracts Given During Last Three Years

Fei Wang, Chia-Hsin Chan, Hui-Kuan Lin and **Qiang Tong**, “SIRT1 and SIRT2 Promote FOXO3a Ubiquitination and Subsequent Proteasomal Degradation through E3 Ubiquitin Ligase Skp2”. Cold Spring Harbor Symposium (Molecular Genetics of Aging), Cold Spring Harbor, New York, September 2008.

Yongjie Yang, Huseyin Cimen, Tong Shi, Min-Joon Han, Jian-Hong Deng, Hasan Koc, Orsolya M. Palacios, Yidong Bai, Emine C. Koc and **Qiang Tong**, “NAD⁺-dependent deacetylase, SIRT3, regulates mitochondrial protein synthesis by deacetylating mitochondrial ribosomal protein L10 (MRP-L10)”. Cold Spring Harbor Symposium (Molecular Genetics of Aging), Cold Spring Harbor, New York, September 2008.

Fei Wang, Ke Yun Chen and **Qiang Tong** “SIRT2 Deacetylates Insulin Receptor to Increase Muscle Insulin Signaling”. Keystone Symposium: Diabetes - New Insights into Mechanism of Disease and its Treatment, Keystone, Colorado, 2013

Keyun Chen, Xin Guo, Yongjie Yang, Junying Han, Michelle Seymour, Frederick A. Pereira and **Qiang Tong** “Transgenic Expression of SIRT3 Mimics the Effects of Caloric Restriction“, Cell Symposium: Aging and Metabolism, Sep.23-25, 2018, Sitges, Spain

Keyun Chen, Alejandra De Angulo, and Qiang Tong “Adipocyte-Specific Deficiency of PU.1 Protects Mice against Age-Associated Obesity and Insulin Resistance”, Keystone Symposium: Metaflammation and Metabolic Disorders, 4/14/2019-4/19/2019, Vancouver, Canada

4. Books

Complete Books Written Not Applicable

Books Edited Not Applicable

Books Chapters Written

1. Judy Tsai, **Qiang Tong**, and Gökhan S. Hotamisligil (2006) GATA Proteins as Molecular Gatekeepers of Adipogenesis. In *New Transcription Factors and Their Role in Diabetes and Its Therapy* (Edited by Jacob E. Friedman). pp173-186, Elsevier, The Netherland.

2. **Qiang Tong** (2011) Sirtuins as Potential Drug Targets for Metabolic Diseases. In *Metabolic Syndrome: Understanding mechanisms and Drug Therapies* (Edited by Minghan Wang). pp391-422, Wiley, New Jersey.

5. Other Works Communicating Research Results to Scientific Colleagues Not Applicable

6. Other Works Communicating Research Results to General Public Not Applicable

III. Teaching Experiences

A. Didactic course work: (include number of hours and frequency)

1. **Courses taught at BCM within the Primary department** Not Applicable

2. **Courses taught at BCM external to Primary department**

805-409 “Method & Logic in Translational Biology” 2008 – 2015

GS-PY 465 “Transmembrane Signaling”, 2009 – 2011

GS-PY-400 “Advanced Topics in Muscle Physiology”, 2018

GS-MB-430 “Biology of Aging and Age-Related Diseases” 2008 – 2020

GS-CC-6301 “Biology of Aging 2” 2021-2025

3. **Courses taught at other institutions while at BCM** Not Applicable

B. Curriculum development work Not Applicable

C. Non-didactic teaching while at BCM:

1. **Resident training** Not Applicable

2. **Clinical Fellow training** Not Applicable

3. **Research Fellow training**

Tong Shi, Ph D. 2003-2004

Fei Wang, Ph. D. 2003-2011

Recipient for Ellison Medical Foundation/American Federation for Aging Senior Postdoctoral Fellowship (2007-2009) “FOXO activation and degradation regulated by SIRT1 and SIRT2” Annual Direct Cost: \$50,000 /Direct Cost for Overall Period: \$100,000

Orsolya Mezei, Ph.D. 2004-2007

Yongjie Yang, Ph.D. 2006-2011, Current position: Instructor, BCM

Ligen Lin, Ph.D. 2008-2010, Current position: Assistant Professor, Macau University, China

Magdalena Maj, Ph.D. 2013-2014 Current position: Postdoc Fellow, MD Anderson Cancer Center

Alejandra De Angulo, Ph.D. 2015-2016 Current position: Instructor, Austin Community College, Texas

Olivia Z. B. Ginnard, D.O. 2021-2023, Current position: Instructor, BCM

Advisory committee member for postdoc fellows: Clavia Wooton-Kee, Yan Xia, Kentaro Kaneko, Odelia Bongmba, Hsiao-Yun Lin, Katelyn E. Senkus, Weisheng Lu, Fuhui Wang, Julia Marie Salamat

4. **Graduate Student training**

As Major Advisor

Not Applicable

As Committee Member

Danielle A. Skorupa	2003-2008
Danett Kay Brake	2004-2008
Tammy Chan	2007-2013
Tianshu Yang	2008-2009
David Durgan	2008-2009
Christina D. Camell	2008-2013
Cory Rubel	2009-2012
Jin Cao	2012-2014

5. Medical student mentoring

Not Applicable

D. Lectures (include location, title of presentation, dates)

1. International

Short Summer course on Biology of Aging at Shandong University Medical School, 2019, 2022-2025

2. National

Substitute lecturer for three classes of Nutrition: Advanced Topics I, Molecular nutrition, Harvard School of Public Health, Boston, 2000

3. Regional

4. Local

E. Visiting professorships: (include location, dates)

Not Applicable

IV. Medical and Service Information

A. Patient Care Responsibilities at BCM and/or its Affiliated Institutions

Not Applicable

B. Clinical Laboratory Responsibilities at BCM

Not Applicable

C. National Education or Voluntary Health Organization Participation

Not Applicable

D. Administrative Assignments at BCM

1. Department administration, committees, etc.

Not Applicable

2. College administration, committees, etc.

Baylor Committee on Scientific Integrity, 2007-current

Baylor Institutional Animal Care and Use Committee, 2008-current

E. Other Pertinent Information Not Given Above

CNRC Postdoctoral Training Committee, 2009-current