

Yi Tan, PhD, FAHA

Associate Professor (Tenured)

Carol B. McFerran Endowed Chair in Juvenile Diabetes Research

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EDUCATION (List in chronological order)

- 07/1997 B. S. in Biology, Sichuan Agricultural University, Ya'an, Sichuan, P.R. China
- 07/2000 M.S. in Biology, Sichuan Agricultural University, Ya'an, Sichuan, P.R. China
- 06/2004 Ph.D. in Biomedical Engineering, Chongqing University, Chongqing, P.R. China

ACADEMIC APPOINTMENTS (List in chronological order)

- 10/2004 – 02/2007 Postdoctoral Fellow,
Pharmacy School & Biomedical Center,
Ji'nan University, Guangdong, China
- 03/2005 – 02/2007 Senior Investigator,
Pharmacy School,
Wenzhou Medical College, Wenzhou, Zhejiang, China
- 03/2007 – 12/2008 Postdoc Research Associate,
Department of Medicine,
University of Louisville, Kentucky, USA
- 01/2009 – 01/2011 Postdoc Research Associate,
Department of Pediatrics,
University of Louisville, Kentucky, USA
- 02/2011–04/2013 Research Associate,
Department of Pediatrics,
University of Louisville, Kentucky, USA
- 05/2013–05/2017 Assistant Professor (Term-track, Primary),
Department of Pediatrics,
University of Louisville, Kentucky, USA
- 07/2013–06/2019 Assistant Professor (Associate),
Department of Pharmacology and Toxicology,
University of Louisville, Kentucky, USA
- 06/2017–06/2019 Assistant Professor (Tenure-track, Primary),
Department of Pediatrics,

07/2019–Present	University of Louisville, Kentucky, USA Associate Professor (Tenured), Departments of Pediatrics, Pharmacology and Toxicology, University of Louisville, Kentucky, USA
08/2020–Present	Carol B. McFerran Chair in Juvenile Diabetes Research, Department of Pediatrics, University of Louisville, Kentucky, USA

OTHER POSITIONS AND EMPLOYMENT (List in chronological order)

N/A

CERTIFICATION AND LICENSURE

N/A

RESEARCH INTERESTS AND MAIN CONTRIBUTION TO SCIENCES

I am a tenured Associate Professor and an endowed Carol B. McFerran Chair in Pediatric Diabetes Research, with appointments in Departments of Pediatrics, Pharmacology and Toxicology.

I have a broad background in diabetic complications and molecular pharmacology, with specific training and expertise in diabetic cardiomyopathy (DCM), diabetic vasculopathy (DVC), diabetic nephropathy (DN), liver steatosis, and atherosclerosis. My research focus includes deciphering the mechanisms of metabolic disorder and oxidative stress in the development of diabetic complications, and developing novel therapies targeting growth factors and their receptors for treatment of diabetic complications: such as stromal cell-derived factor 1 (SDF-1), CXCR4, and CXCR7 (*Cardiovascular Research* 2009; *Diabetes* 2013; *Circulation Research* 2017; *Diabetes* 2020) for endothelial progenitor cell (EPC) mobilization, function and diabetic ischemia angiogenesis, and FGF1 and FGF21 (*Diabetologia* 2015; *Cell Reports* 2017; *Hepatology* 2021) for DCM and liver steatosis. I have long-standing interest in modifying the native growth factors to improve their therapeutic efficacy and/or reduce their adverse effects, with special emphasis on developing agonists and/or antagonists targeting growth factor receptors to stimulate multiple beneficial effectors (such as MT, Nrf2, AMPK, etc.) for promoting cell redox homeostasis, metabolic programming, survival and function, and tissue repair (*Diabetes* 2011; *J Am Coll Cardiol* 2012; *Diabetes* 2018; *Redox Biology* 2018; *Nature Reviews Cardiology* 2020).

My research has been supported by NIH-R01 (PI), ADA-Junior Faculty Award (PI), JDRF-Innovation Award (PI) and DOD-Idea Development Award (Co-I). I have successfully administered these projects (e.g.: staffing, research protections, budget), established strong collaborative relationships with the pioneer scientists and peer colleagues inside and outside of my university, and produced several peer-reviewed publications from each project. Because of these previous experiences, I am aware of the importance of frequent communication among project members and of constructing a realistic research plan, timeline, and budget.

In addition to performing these projects, I am also actively involved in many academic services, including manuscript review, grant review, editorial board member of peer-reviewed journals, and council member of academic societies.

Contribution to Sciences

- 1. Identified the critical roles of SDF-1 and its receptors CXCR4/CXCR7 in diabetic cardiovascular complications:** I have a long-standing interest in studying the structure & function of SDF-1 and its receptors CXCR4 and CXCR7. During my PhD and postdoc training, we developed a series of human SDF-1 mutants and proved one of these mutants P2G has high antagonistic activities against the natural receptor CXCR4. We demonstrated that P2G could effectively improve hind limb ischemic angiogenesis, blood flow restoration and injured muscle regeneration with potent mobilization of pro-angiogenic cells, including EPCs from bone marrow into circulation (*Cardiovasc Res*, 2009). We also revealed a novel mechanism by which SDF-1 protects cardiac cells from lipotoxicity via CXCR7/AMPK-mediated signaling pathways **(a)**. We have systemically defined that SDF-1 receptors CXCR4 and CXCR7 play essential but distinct roles in EPC-mediated angiogenesis under normal and diabetic conditions. Elevating CXCR7 expression improves angiogenic function of EPCs and promotes diabetic ischemia vascularization via Akt-mediated Nrf2 nuclear translocation and transcription activation **(b)**. We revealed that diabetes-induced oxidative stress plays a causal role

in CXCR4/CXCR7 signaling impairment in diabetic EPCs and endothelial-specific overexpression of antioxidant MT can rescue HIF-1 α /SDF-1/CXCR4/CXCR7 signaling pathway and promote diabetic EPC angiogenic function (c). These findings suggest that Nrf2 and CXCR7 are promising therapeutic targets for diabetic cardiovascular complications. Because of our contribution in the mechanism of diabetic EPC dysfunction field, we were recently invited to contribute a comprehensive review article to *Trends in Molecular Medicine* to summarize the essential role of Nrf2 in regulating redox and metabolic homeostasis of stem cells and EPCs (d).

- a. Zhao Y[†], Tan Y[†], Xi S, Li Y, Li C, Cui J, Yan X, Li X, Wang G, Li W, Cai L. A novel mechanism by which SDF-1 β protects cardiac cells from palmitate-induced endoplasmic reticulum stress and apoptosis via CXCR7 and AMPK/p38 MAPK-mediated interleukin-6 generation. *Diabetes*. 2013; 62(7):2545-58. PMID: 23423573.
- b. Dai X, Yan X, Zeng J, Chen J, Wang Y, Chen J, Li Y, Barati MT, Wintergerst KA, Pan K, Nystoriak MA, Conklin DJ, Rokosh G, Epstein PN, Li X, Tan Y*. Elevating CXCR7 improves angiogenic function of EPCs via Akt/GSK-3 β /Fyn-mediated Nrf2 activation in diabetic limb ischemia. *Circulation Research*. 2017; 120: e7-e23. PMID: 28137917.
- c. Wang K[†], Dai X[†], He J, Yan X, Yang C, Fan X, Sun X, Chen J, Xu J, Deng Z, Fan J, Yuan X, Liu H, Carlson EC, Shen F, Wintergerst KA, Conklin DJ, Epstein PN, Lu C, Tan Y*. Endothelial Overexpression of Metallothionein Prevents Diabetes Mellitus-Induced Impairment in Ischemia Angiogenesis via Preservation of HIF-1 α /SDF-1/VEGF Signaling in Endothelial Progenitor Cells. *Diabetes*. 2020; 69(8): 1779-1792. PMID: 32404351.
- d. Dai X, Yan X, Cai L, Wintergerst KA, Keller BB*, Tan Y*. Nrf2: Redox and Metabolic Regulator of Stem Cell State and Function. *Trends in Molecular Medicine*. 2020; 26(2): 185-200. PMID: 31679988.

2. **Defined the preventive mechanisms of MT and Nrf2 against oxidative stress-induced cardiac metabolic disorder and DCM:** Cardiomyopathy is the leading cause of mortality among diabetics and alcoholics (a,b). By using cardiac specific MT-TG model and primary cardiomyocytes with specific gene manipulation, we demonstrated that diabetes-induced oxidative stress dramatically attenuated cardiac Akt2-mediated insulin signaling, this led to cardiac glucose and fat acid metabolic disorder, cell death and eventual development of DCM, which could be prevented by cardiac MT overexpression or systemic administration of MT inducer Zn (a,c). Diabetes-induced elevation of angiotensin II is an independent risk factor for DCM. By using cardiac specific Nrf2-TG and Nrf2-KO models and Nrf2 inducer SFN, we demonstrated that angiotensin II induction of oxidative stress impaired cardiac Nrf2 activity via attenuating Akt/GSK-3 β /Fyn pathway-mediated Nrf2 nuclear translocation, leading to cardiac dysfunction independent of angiotensin II-related hypertension, which could be reversed by Nrf2 overexpression or Nrf2 inducer SFN (d). These are pioneer studies to indicate that MT, Nrf2, and angiotensin II may be novel therapeutic targets for treatment of cardiac metabolic disorder and cardiomyopathy. Because of our contribution to the DCM field, we were recently invited to contribute a comprehensive review article to *Nature Reviews Cardiology* to summarize the mechanisms of DCM and potential therapeutic strategies with special emphasis on preclinical and clinical evidence and highlight future directions (e).

- a. Tan Y[†], Ichikawa T[†], Li J, Si Q, Yang H, Chen X, Goldblatt CS, Meyer CJ, Li X, Cai L, Cui T. Diabetic downregulation of Nrf2 activity via ERK contributes to oxidative stress-induced insulin resistance in cardiac cells in vitro and in vivo. *Diabetes*. 2011; 60(2):625-33. PMID: 21270272.
- b. Tan Y, Li X, Prabhu SD, Brittan KR, Chen Q, Yin X, McClain CJ, Zhou Z, Cai L*. Angiotensin II plays a critical role in alcohol-induced cardiac nitrative damage, cell death, remodeling, and cardiomyopathy in a protein kinase C/nicotinamide adenine dinucleotide phosphate oxidase-dependent manner. *J Am Coll Cardiol*. 2012; 59(16):1477-86. PMID: 22497828.
- c. Gu J[†], Yan X[†], XDai X, Wang Y, Lin Q, Xiao J, Zhou S, Zhang J, Wang K, Zeng J, Xin Y, Barati MT, Zhang C, Bai Y, Li Y, Epstein PN, Wintergerst KA, Li X, Tan Y*, Cai L. Metallothionein preserves Akt2 activity and cardiac function via inhibiting TRB3 in diabetic hearts. *Diabetes*. 2018; 67(3): 507-517. PMID: 29079702.
- d. Xin Y, Bai Y, Jiang X, Zhou S, Wang Y, Wintergerst KA, Cui T, Ji H*, Tan Y*, Cai L. Prevention of Angiotensin II-induced Cardiomyopathy by Activation of Nrf2 with Sulforaphane via Stimulating the Akt/GSK-3 β /Fyn Pathway. *Redox Biology*. 2018; 15 (2018) 405-417. PMID: 29353218.
- e. Tan Y*, Zhang Z, Zheng C, Wintergerst KA, Keller BB, Cai L*. Mechanisms of diabetic cardiomyopathy and potential therapeutic strategies: preclinical and clinical evidence. *Nature Reviews Cardiology*. 2020; 17(9):585-607. PMID: 32080423.

- 3. Defined the therapeutic potential and mechanisms of FGF1 and FGF21 in prevention from diabetic complications:** We demonstrated that FGF21 can potently protect from DCM, DN, and DVC by prevention of cell death, oxidative stress, inflammation, fibrosis, as well as modulation of metabolic disorders via AMPK and Nrf2 activation (**a,b**). In addition, the recent discovery of metabolic roles for FGF1 in glucose homeostasis has expanded the functions of this classically known mitogen. However, the potent mitogenic activity of FGF1 limits its clinical applications. We engineered an FGF1 partial agonist carrying triple mutations (FGF1^{ΔHBS}) that diminished its ability to induce heparan sulfate (HS)-assisted FGF receptor (FGFR) dimerization and activation. FGF1^{ΔHBS} exhibited a severely reduced proliferative potential, while preserving the full metabolic activity of wild-type FGF1 *in vitro* and *in vivo* (**c**). Our further study proved that FGF1^{ΔHBS} could effectively reverse established fatty liver disease in *db/db* type 2 diabetic mice and prevent high-fat/high-cholesterol diet-induced liver steatohepatitis and fibrosis in ApoE-KO mice predominantly via hepatic FGFR4-mediated AMPK/Nrf2 activation and promoting fatty acid metabolism (**d**). Our results demonstrate that FGF1^{ΔHBS} is a promising novel drug candidate for treatment of diabetes and diabetic complications.
- Yan X, Chen J, Zhang C, Zeng J, Zhou S, Zhang Z, Chen J, Feng W, Li X, **Tan Y***. Fibroblast growth factor 21 deletion aggravates diabetes-induced pathogenic changes in the aorta in type 1 diabetic mice. *Cardiovasc Diabetol.* **2015**, 14:77. PMID: 27391008.
 - Zhang C, Huang Z, Gu J, Yan X, Lu X, Zhou S, Wang S, Shao M, Zhang F, Cheng P, Feng W, **Tan Y***, Li X*. Fibroblast growth factor 21 protects the heart from apoptosis in a diabetic mouse model via extracellular signal-regulated kinase 1/2-dependent signalling pathway. *Diabetologia.* **2015**; 58(8):1937-48. PMID: 26040473.
 - Huang Z.†, **Tan Y†**, Gu J†, Liu Y, Song L, Niu J, Zhao L, Srinivasan L, Lin Q, Deng J, Li Y, Conklin DJ, Neubert TA, Cai L, Li X*, and Mohammadi M*. Uncoupling the Mitogenic and Metabolic Functions of FGF1 by Tuning FGF1-FGF Receptor Dimer Stability. *Cell Rep.* **2017**, 20, 1717–1728. PMID: 28813681.
 - Lin Q, Huang Z, Cai G, Fan X, Yan X, Liu Z, Zhao Z, Li J, Li J, Shi H, Kong M, Ming-Hua Zheng MH, Conklin DJ, Epstein PN, Wintergerst KA, Mohammadi M, Cai L, Li X, Li Y, **Tan Y***. Activating AMPK Mediates Fibroblast Growth Factor 1 Protection from Nonalcoholic Fatty Liver Disease in Mice. *Hepatology.* **2021**; 73(6):2206-2222. PMID: 32965675.
- 4. Defined the protective mechanisms of MT and Nrf2 in kidney damages induced by hypoxia, and type 1 and type 2 diabetes:** We found that MT deletion exacerbated intermittent hypoxia-induced renal injury in mice, which were associated with significantly attenuated Nrf2, HO1 and NQO1 signaling, indicating a potential feedback regulation between MT and Nrf2 (**a**). Indeed, in a HFD/STZ-induced type 2 diabetic model we further revealed that a potent Nrf2 inducer sulforaphane (SFN) prevention of DN were accompanied by elevation of Nrf2 and MT expression. However, SFN renal protection was completely lost in Nrf2-KO diabetic mice and SFN failed to upregulate MT in the absence of Nrf2, whereas MT deletion resulted in a partial, but significant attenuation of SFN renal protection, suggesting that MT is an Nrf2 downstream target and plays a feedback regulatory role in Nrf2-mediated renal protection (**b**). We further defined the cell-specific renal protective roles of MT using an endothelial-specific MT overexpression OVE type 1 diabetic model (OVE-JTMT) via a systemic transmission electron microscopy (TEM) stereological analysis. We found that endothelial MT overexpression mitigated several renal complications including increased non-fenestrated glomerular endothelial area, and elimination of glomerular basement membrane thickening. The renoprotection was also observed outside of endothelial cells, including reduced podocyte effacement and increased podocyte, mitigation of nephromegaly and glomerular hypertrophy, and increased mesangial cell numbers. These results confirm the essential role of endothelial cell oxidative injury to the pathogenesis of DN (**c**). We also defined the sex dimorphism of DN in OVE mice. We found that female OVE mice had more severe albuminuria, podocyte loss, fibrosis and inflammatory cell infiltration. These differences may be attributable to diabetes-induced reductions in estradiol levels and renal estrogen receptors. Our findings provide the basis for researchers to better select the age and sex of OVE mice in future studies of type 1 DN (**d**).
- Wu H, Zhou S, Kong L, Chen J, Feng W, Cai J, Miao L*, **Tan Y***. Metallothionein deletion exacerbates intermittent hypoxia-induced renal injury in mice. *Toxicol Lett.* **2015**; 232(2): 340-348. PMID: 27813325
 - Wu H, Kong L, Cheng Y, Zhang Z, Wang Y, Luo M, **Tan Y**, Chen X, Miao L, Cai L. Metallothionein plays a prominent role in the prevention of diabetic nephropathy by sulforaphane via up-regulation of Nrf2. *Free Radic Biol Med.* **2015**; 89:431-442. PMID: 27813325

- c. Carlson EC, Chhoun JM, Grove BD, Laturnus DI, Zheng S, Epstein PN, **Tan Y**. Renoprotection from Diabetic Complications in OVE Transgenic Mice by Endothelial Cell Specific Overexpression of Metallothionein: A TEM Stereological Analysis. *Anat Rec (Hoboken)*. **2017**; 300:560–576. PMID: 27813325
- d. Wang W, Jiang S, Tang X, Cai L, Epstein PN, Cheng Y, Sun W*, Xu Z*, **Tan Y**. Sex differences in progression of diabetic nephropathy in OVE26 type 1 diabetic mice. *BBA - Molecular Basis of Disease*. **2020**; 1866 (2020) 165589. PMID: 31678163

Note: *, † indicating Tan Y as corresponding (*) or equal contribution (†) author. The above items are just the key features for my research in complications of metabolic syndrome related fields.

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES (List in chronological order)

2008 – Present	Member of the Society of Toxicology
2010 – Present	Member of the American Heart Association
2012 – Present	Member of American Diabetes Association
2012 – 2013	Executive Council Member (Post-doctoral Representative) of the Ohio Valley Society of Toxicology
2013 – Present	Lifetime member of Chinese-American Diabetes Association
2014 – Present	Lifetime member of The Academy of Cardiovascular Research Excellence
2017 – 2019	Board member of Chinese-American Diabetes Association (Treasurer)
2019 – 2020	Board member of Chinese-American Diabetes Association (Secretary)

HONORS AND AWARDS (List in chronological order)

Honors and Awards for Yi Tan

2000	Top Master Student, Sichuan Agricultural University, Sichuan, China.
2003	Excellent Ph.D. Student, Chongqing University, Chongqing, China.
2005	China Postdoctoral Science Foundation Award, Third Place. No. 2005037600.
2008	Chinese Medical Association Science and Technology Award, First Place, No. 200801158P1515, Chinese Medical Association.
2010	Best Postdoctoral Fellow Poster Presentation, Ohio Valley Society of Toxicology 2010 Annual Meeting, University of Cincinnati, Cincinnati, OH, September 24 th .
2011	Postdoctoral Student Travel Award, Mechanisms Specialty Section, the 50th Anniversary Meeting of the Society of Toxicology. March 6-10 at the Walter E. Washington Convention Center in Washington, D .C., USA.
2011	Impact Award, Cardiovascular Toxicology Specialty Section, the 50th Anniversary Meeting of the Society of Toxicology. March 6-10, 2011 at the Walter E. Washington Convention Center in Washington, D .C., USA. Manuscript: <i>Diabetic downregulation of Nrf2 activity via ERK contributes to oxidative stress-induced insulin resistance in cardiac cells in vitro and in vivo</i> . <i>2011; 60(2):625-33</i> .
2011	Best Platform Presentation Award, Ohio Valley Society of Toxicology 2011 Annual Meeting, September 23rd, 2011 at Boonshoft School of Medicine, Wright State University, Dayton, OH, USA.
2012	Travel Award, as a representative of Ohio Valley Society of Toxicology (OVSOT) at the 51 st Annual Meeting of the Society of Toxicology, March 11-15, 2012 at the Moscone Convention Center in San Francisco, CA, USA.
2013	Best Manuscript By A Postdoc Award, the Occupational & Public Health Specialty Section, the 52nd Annual Meeting of the Society of Toxicology, March 10-14, 2013 at the Henry B. Gonzalez Convention Center in San Antonio, Texas, USA. Manuscript: <i>Angiotensin II Plays a Critical Role in Alcohol-Induced Cardiac Nitritative Damage, Cell Death, Remodeling, and Cardiomyopathy in a PKC/NADPH Oxidase-Dependent Manner</i> . <i>Journal of the American College of Cardiology (JACC)</i> ; <i>2012; 59:1477–1486</i> .

- 2013 Impact Award, Cardiovascular Toxicology Specialty Section, the 52nd Annual Meeting of the Society of Toxicology, March 10-14, 2013 at the Henry B. Gonzalez Convention Center in San Antonio, Texas, USA. *Manuscript: Angiotensin II Plays a Critical Role in Alcohol-Induced Cardiac Nitritive Damage, Cell Death, Remodeling, and Cardiomyopathy in a PKC/NADPH Oxidase-Dependent Manner. Journal of the American College of Cardiology (JACC); 2012; 59:1477–1486.*
- 2013 Junior Faculty Award, American Diabetes Association.
- 2013 Yong Faculty Investigator Award, *Research!Louisville*, Sept 24-27, 2013, University of Louisville, KY, USA.
- 2014 Outstanding Junior Faculty Award, The First Annual the Academy of Cardiovascular Research Excellence (ACRE) and the Acta Pharmacologica Sinica (APS) Symposium: Novel Therapeutic Approaches on Sunday, July 13, 2014 in Paris Las Vegas, 3655 Las Vegas Blvd South, Las Vegas, Nevada, USA.
- 2020 Fellow of the American Heart Association (FAHA).

Honors and Awards for Yi Tan's Trainees

- 2016 Graduate Students Poster Award (Third Place). Fibroblast Growth Factor 1 Ameliorates Diabetic Nephropathy Through an Anti-inflammatory Mechanism. Qian Lin, Lu Cai, Yi Tan. Ohio Valley Society of Toxicology Annual Meeting, October 28th 2016. The Meeting will be held in Building 93/73/76 of the Eli Lilly Campus. Awardee: Qian Lin. Mentor: **Yi Tan**.
- 2016 Postdoctoral Students Platform Award (First Place). Elevating CXCR7 improves angiogenic function of EPCs via Akt/GSK-3beta/Fyn-mediated Nrf2 activation in diabetic limb ischemia. Xiaozhen Dai, Xiaoqing Yan, Jun Zeng, Jing Chen, Jun Chen, Yan Li, Yi Tan. Ohio Valley Society of Toxicology Annual Meeting, October 28th 2016. The Meeting will be held in Building 93/73/76 of the Eli Lilly Campus. Awardee: Xiaozhen Dai. Mentor: **Yi Tan**.
- 2017 Postdoctoral Student Travel Award, Postdoctoral Representative of Ohio Valley Society of Toxicology for the Society of Toxicology (SOT) 56th Annual Meeting and ToxExpo. Baltimore, Maryland, March 12–16, 2017. Awardee: Xiaozhen Dai. Mentor: **Yi Tan**.
- 2017 Graduate Student Travel Award, the Society of Toxicology (SOT) 56th Annual Meeting and ToxExpo. Baltimore, Maryland, March 12–16, 2017. Awardee: Qian Lin. Mentor: **Yi Tan**.
- 2017 Renal Toxicology Award (2nd Place), Presented by the Mechanisms Specialty Section, the Society of Toxicology (SOT) 56th Annual Meeting and ToxExpo. Baltimore, Maryland, March 12–16, 2017. Awardee: Qian Lin. Mentor: **Yi Tan**.
- 2017 Oral Presentation. Fibroblast Growth Factor 1 Prevents Diabetic Nephropathy Through an Anti-JNK/NF-κB Signal pathway. American Diabetes Association 77th Scientific Sessions, June 9 - 13, 2017, San Diego, California. Awardee: Qian Lin. Mentor: **Yi Tan**.
- 2017 Oral Presentation. Fibroblast Growth Factor 1 Prevents Diabetic Nephropathy Through an Anti-JNK/NF-κB Signal pathway. The 8th Scientific Symposium of the Chinese American Diabetes Association (CADA), June 8-9, 2017 in San Diego, California. Awardee: Qian Lin. Mentor: **Yi Tan**.
- 2017 Outstanding Young Investigator Award (First Prize), Recognition of outstanding research and scientific presentation at the Fourth ACRE-APS symposium, July 09, 2017 in Portland, Oregon. Awardee: Qian Lin. Mentor: **Yi Tan**.
- 2017 Best Postdoctoral Fellow Poster Presentation. CXCR7 agonist TC14012 improves angiogenic function of endothelial progenitor cells in diabetic limb ischemia. Ohio Valley Society of Toxicology Annual Meeting. December 1, 2017. Stewart Center, Purdue University, West Lafayette, IN. Awardee: Kai Wang. Mentor: **Yi Tan**.
- 2018 Postdoctoral Trainee Award, Cardiovascular Toxicology Specialty Section (CVTSS) of SOT. CXCR7 agonist TC14012 improves angiogenic function of endothelial progenitor cells in diabetic limb ischemia. Society of Toxicology (SOT) 57th Annual Meeting, Mar 11 - 15, 2018, San Antonio, Texas. Awardee: Kai Wang. Mentor: **Yi Tan**.
- 2018 Ronald G. Thurman Student Travel Award from the Mechanisms Specialty Section of the Society of Toxicology. A novel fibroblast growth factor 1 variant reverses nonalcoholic fatty liver disease in type 2

diabetes. Society of Toxicology (SOT) 57th Annual Meeting, Mar 11 - 15, 2018, San Antonio, Texas.

Awardee: Qian Lin. Mentor: **Yi Tan**.

- 2018 Student Presentation Award. A novel fibroblast growth factor 1 variant reverses nonalcoholic fatty liver disease in type 2 diabetes. 9th Scientific Symposium, Chinese-American Diabetes Association. June 20-22, 2018, Hyatt Place Orlando/Lake Buena Vista, Orlando, FL. Awardee: Qian Lin. Mentor: **Yi Tan**.
- 2019 Platform presentation. Metallothionein Improves Angiogenic Function of Endothelial Progenitor Cells Via Hif-1 α /sdf-1/Akt Pathway in Diabetic Limb Ischemia. The SOT 58th Annual Meeting and ToxExpo, March 10-14, 2019, at the Baltimore Convention Center in Baltimore, Maryland. Awardee: Kai Wang, Mentor: **Yi Tan**.
- 2019 Platform presentation. An Endocrinized Fibroblast Growth Factor 1 Variant Reverses Nonalcoholic Fatty Liver Disease via Activating AMPK in Type 2 Diabetes. 2019 Annual Meeting of the Ohio Valley Society of Toxicology on Friday, October 18, 2019 at Procter & Gamble Center, 8700 Mason Montgomery Rd, Mason, Ohio. Awardee: Qian Lin. Mentor: **Yi Tan**.
- 2020 Platform presentation. Activating AMPK Mediates Fibroblast Growth Factor 1 Protection from Nonalcoholic Fatty Liver Disease in Diabetic Mice. Society of Toxicology 59th Annual Meeting, March 15-19, 2020, Anaheim, CA. Awardee: Qian Lin. Mentor: **Yi Tan**.
- 2021 American Association of Chinese in Toxicology SIG AACT and InnoStar Best Abstract Awards from the AACT Specialty Section of the Society of Toxicology. A non-mitogenic FGF1 ^{Δ HBS} variant protects from nonalcoholic fatty liver disease via activating AMPK-mediated pathways. The Virtual 2021 SOT Annual Meeting and ToxExpo, March 12-26. Awardee: Qian Lin. Mentor: **Yi Tan**.

COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE SERVICES (List in chronological order)

Grant Review

Ad hoc reviewer

- | | |
|----------------|---|
| 2008 – Present | National Natural Science Foundation of China (NSFC) |
| 2012 – Present | Natural Science Foundation of Beijing City, China |
| 2012 – Present | Natural Science Foundation of Hunan Province, China |
| 2013 – Present | Natural Science Foundation of Shandong Province, China |
| 2014 – Present | Natural Science Foundation of Zhejiang Province, China |
| 2016 – Present | Ministry of Science and Technology of the People's Republic of China |
| 2016 – Present | National Health and Family Planning Commission of the People's Republic of China |
| 2016 | American Heart Association's C BIO REG 4 Peer Review Committee, September 28, 2016 |
| 2017 | American Heart Association's C BIO REG 4 Peer Review Committee, May 3, 2017 |
| 2017 | National Natural Science Foundation of China (NSFC) Peer Review Committee, July 21-25, 2017 |
| 2017.10 | University of Utah - Washington University DRC Collaborative Pilot and Feasibility Program |
| 2018 | American Heart Association's C Cardiac Biology BSc 1 Peer Review Committee, January, 2018 |
| 2019 | National Natural Science Foundation of China (NSFC) Peer Review Committee, July 21-25, 2019 |
| 2019 | National Natural Science Foundation of USA <i>Ad Hoc</i> Peer Review, November 6, 2019 |
| 2021 | American Heart Association Fellowships Cardiology 5 peer review committee, March 9, 2021 |
| 2021 | The Wellcome Trust DBT India Alliance Fellowship peer review committee, March 20, 2021. |
| 2021 | American Heart Association Fellowships Cardiology 5 peer review committee, October 27, 2021 |

Other professional activities

- | | |
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| 2010 | Judge for <i>Research!Louisville</i> , October 12, 2010, University of Louisville, KY, USA |
| 2012 | Secretary for the 3rd Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, May 1. |
| 2013 | Judge for <i>Research!Louisville</i> , September 25, 2013, University of Louisville, KY, USA. |
| 2013 | Judge for <i>Ohio Valley Society of Toxicology 2013 Annual Meeting</i> , September 23, 2013, University of Louisville, KY, USA. |

- 2013 Judge for the 8th Xiangya International Diabetes Immunology Forum, Changsha, China, April 28-29, 2013.
- 2013 Secretary for the Southern Zhejiang Endocrinologic & Metabolic Diseases Forum (2013) and the 4th Chinese-American Diabetic Complications Forum, at Wenzhou Medical University, October 11 -13.
- 2013 Co-Chair for the Southern Zhejiang Endocrinologic & Metabolic Diseases Forum (2013) and the 4th Chinese-American Diabetic Complications Forum, at Wenzhou Medical University, October 11 -13.
- 2014 Secretary for the 5th Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, May 10, 2014.
- 2014 Co-Chair for the Fifth Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, May 10, 2014.
- 2014 Judge for *Research!Louisville*, September 17, 2014, University of Louisville, KY, USA
- 2014 Judge for the 9th "Annual Academy of Cardiovascular Research Excellence (ACRE)/ Chinese American Heart Association (CNAHA) Cardiovascular Research Symposium" and "CnAHA/ACRE China Night" on Saturday, November 15, 2014, in Chicago, IL.
- 2014 Involvement in establishing China-UofL (Pharmacology & Toxicology; Pediatrics) partnerships for PhD student programs and junior physician programs
- 2014 Involvement in establishing Chinese-American Pediatric Research Institute between the First affiliated Hospital of Wenzhou Medical University and Department of Pediatrics of the University of Louisville.
- 2015 Co-Chair for the 6th Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, Nov 7, 2015.
- 2016 The secretary for the 7th Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, July 2-3, 2016.
- 2016 Co-Chair for the Basic Science Session of the Yuying Forum 2016, The Second Affiliated Hospital of Wenzhou Medical University, October 30-November 1, 2016, Wenzhou, China.
- 2016 Judge for the Third Annual the Academy of Cardiovascular Research Excellence (ACRE) and the Acta Pharmacologica Sinica (APS) Symposium on Sunday, July 17, 2016 in Hyatt Regency Phoenix, Phoenix, AZ, USA.
- 2016 Wenzhou Medical & Jilin University Task Force, Standing Committees – 2016, Department of Pharmacology and Toxicology, University of Louisville.
- 2017 Chair for Session IX (Sunset Room)-Emerging topics at the 8th Scientific Symposium of the Chinese American Diabetes Association (CADA), June 8-9, 2017 in San Diego, California.
- 2017 Judge for *Research!Louisville*, September 11-15, 2017, University of Louisville, KY, USA.
- 2017 Co-Chair for the ATVB/CAAC Joint Session: Cardiovascular Pathology and Mechanism at the 28th Great Wall International Congress of Cardiology & Asia Pacific Heart Congress 2017 & International Congress of Cardiovascular Prevention and Rehabilitation, October 12-15, 2017 in Beijing, China.
- 2017 Co-Chair for the 8th Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, November 4-6, 2017.
- 2017 Co-Chair for the Basic Science Session of the Yuying Forum 2017, The Second Affiliated Hospital of Wenzhou Medical University, November 3-4, 2017, Greece Hall, Olympic Hotel, Wenzhou, China.
- 2017 Judge for the Master Student Poster Presentation. Ohio Valley Society of Toxicology Annual Meeting. December 1, 2017. Stewart Center, Purdue University, West Lafayette, IN.
- 2018 Chair for the CADA Achievement Award Selection Committee (Member: Lu Cai, Xiaoli Chen, Xiaoyong Yang), the 9th CADA Annual meeting on June 20-22, 2018 in Orlando.
- 2018 Chair for the CADA Young Investigator Award Selection Committee (Member: Yong Liu, Yonghao Yu), the 9th CADA Annual meeting on June 20-22, 2018 in Orlando.
- 2018 Chair for the CADA Session IV-Sponsor lectures, the 9th CADA Annual meeting on June 20-22, 2018 in Orlando.
- 2018 Judge for *Research!Louisville2018*, October 8 – 12, 2018 at the University of Louisville Kosair Charities Clinical and Translational Research Building (KCCTRB) at 505 South Hancock St, Louisville, KY 40202.
- 2018 Co-Chair for the 9th Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, November 19-20, 2018.
- 2018 Co-Chair for the Basic Science Session of the Yuying Forum 2018, The Second Affiliated Hospital of Wenzhou Medical University, November 2-3, 2018, Dongtou Island, Wenzhou, China.

- 2019 Judge for the Louisville Regional Science and Engineering Fair (LRSEF, 2019 duPont Manual Fair), Plant Science 3, March 9th, 2019, UofL Student Activity Center.
- 2019 Chair for the CADA Session II-Sponsor lectures, the 10th CADA Annual meeting on June 5-7, 2019 in San Francisco.
- 2019 Co-Chair for the 10th Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China on May 11-12, 2019.
- 2019 Judge for *Research!Louisville2019*, September 10 – 12, 2019 at the University of Louisville Kosair Charities Clinical and Translational Research Building (KCCTRB) at 505 South Hancock St, Louisville, KY 40202.
- 2019 Judge for *Doctoral Student Platform Presentations*, 2019 Annual Meeting of the Ohio Valley Society of Toxicology on Friday, October 18, 2019 at Procter & Gamble Center, 8700 Mason Montgomery Rd, Mason, Ohio.
- 2020 Served as member for the American Association of Chinese in Toxicology (AACT) 2020 AACT Distinguished Chinese Toxicologist Award Selection Committee, the Society of Toxicology 59th Annual meeting & TxoExpo on March 15-19, 2020 in Anaheim, California.
- 2020 Served as member for the American Association of Chinese in Toxicology (AACT) 2020 AACT Jean Lu Student Award Selection Committee, the Society of Toxicology 59th Annual meeting & TxoExpo on March 15-19, 2020 in Anaheim, California.
- 2020 Served as member for the American Association of Chinese in Toxicology (AACT) 2020 AACT The Best Abstract Award Selection Committee, the Society of Toxicology 59th Annual meeting & TxoExpo on March 15-19, 2020 in Anaheim, California.
- 2020 Judge for the Louisville Regional Science and Engineering Fair (LRSEF, 2020 duPont Manual Fair), Biomedical Science 1, March 7th, 2020, UofL Student Activity Center.
- 2021 Served as member for the American Association of Chinese in Toxicology (AACT) 2021 AACT Distinguished Chinese Toxicologist Award Selection Committee, the Society of Toxicology 60th Annual meeting & TxoExpo, Virtual.
- 2021 Served as member for the American Association of Chinese in Toxicology (AACT) 2021 AACT Jean Lu Student Award Selection Committee, the Society of Toxicology 59th Annual meeting & TxoExpo, Virtual.

EDUCATIONAL ACTIVITIES (List in chronological order)

Assistant Supervisor for Ph.D. and Master Students

Weifeng Ma, M.S.	Biomedical Engineering, Chongqing University, Chongqing, China	09/2002 – 08/2005
Zhigang Guo, Ph.D.	Biomedical Engineering, Chongqing University, Chongqing, China	09/2003 – 03/2007
Hongyuan Chen, Ph.D.	Biomedical Engineering, Chongqing University, Chongqing, China	09/2003 – 09/2006
Weifeng Ma, Ph.D.	Biomedical Engineering, Chongqing University, Chongqing, China	09/2005 – 03/2007

Assistant Supervisor for Ph.D. students, post-doctoral fellows and visiting scholars

Qiuju Liu	Ph.D. candidate	03/2008 – 03/2009
Jiancheng Xu	Ph.D. candidate	03/2008 – 03/2009
Yuguang Zhao	Ph.D. candidate	09/2009 – 03/2011
Junling Yang	Senior Visiting Scholar	09/2009 – 09/2010
Bing Li	Ph.D. candidate	03/2010 – 03/2011
Xia Yin	Ph.D. candidate	06/2010 – 05/2012
Yang Bai	Ph.D. candidate	09/2010 – 09/2012
Chi Zhang	Post-doctoral fellow	03/2010 – 11/2012
Qiang Chen	Visiting Scholar	10/2010 – 12/2011
Wenpeng Cui	Ph.D. candidate	04/2011 – 05/2012

Weixia Sun	Ph.D. candidate	04/2011 – 05/2014
Xiao Miao	Ph.D. candidate	04/2011 – 06/2014

Supervisor for post-doctoral fellows and visiting scholars

Xiaoqing Yan	Post-doctoral fellow	07/2012 – 10/2014
Jun Zeng	Post-doctoral fellow	06/2013 – 05/2016
Jun Chen	Post-doctoral fellow	07/2014 – 12/2015
Jing Chen	Research Associate	04/2014 – 10/2017
Xiaozhen Dai	Post-doctoral fellow	03/2015 – 02/2018
Wenya Weng	Research Associate	01/2017 – 01/2019
Yi Wang	Post-doctoral fellow	10/2017 – 09/2018
Min Zhang	Post-doctoral fellow	06/2018 – 09/2019
Junhong He	Visiting scholar	07/2018 – 09/2019
Chengkui Yang	Post-doctoral fellow	11/2017 – 12/2019
Kai Wang	Post-doctoral fellow	08/2016 – 02/2020
Xiaohuan Yuan	Post-doctoral fellow	10/2019 – 09/2020
Qian Lin	Post-doctoral fellow	09/2018 – Present

Supervisor for undergraduate and Ph.D. students

Qian Lin	Graduate Student (PhD candidate)	08/2015 – 08/2018
Oscar Chen	Undergraduate Student	05/2017 – 05/2019

Supervisor for high school students

Chaochen Tan	duPont Manual High School (Science fair project)	09/2016 – 12/2019
Joe Chen	duPont Manual High School (Science fair project)	09/2017 – 12/2019

Class teaching for graduate students

2018	Class lecture: Cardiovascular Toxicology, Department of Pharmacology & Toxicology of the University of Louisville, September 6 & 13, 1:00-4:00 pm in the 13th floor conference room of the Tower Building.	
2019	Class lecture: Cardiovascular Toxicology, Department of Pharmacology & Toxicology of the University of Louisville, September 12 & 19, 1:30-3:30 pm in the 13th floor conference room of the Tower Building.	
2021	Class lecture: Cardiovascular Toxicology, Department of Pharmacology & Toxicology of the University of Louisville, January 21 & 26, 9:30-11:30 am in the CTR 123 & 124 room.	

CLINICAL ACTIVITIES (List in chronological order)

N/A

GRANTS AND CONTRACTS (List in chronological order and number)***Ongoing grants***

05/2017 – 02/2022	NIH/HLBI R01 Application ID: 1R01HL125877-01 A novel mechanism of stromal cell derived factor 1 (SDF-1) protection of diabetic cardiomyopathy Total direct support: \$1,250,000 Yearly: \$250,000
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Effort: 30%

Role: PI

05/2013 – Present Pediatric Research Institute Start-up Fund
 The Mechanism of Diabetes-induced Endothelial Progenitor Cells Dysfunction
 Total direct support: \$300,000
 Effort: 20%
 Role: PI

Pending grants

10/2021 – 09/2026 NIH R01
 FGF1 prevents hyperlipidemia and atherosclerosis
 Total direct support: \$1,875,000
 Yearly: \$375,000
 Effort: 20%
 Role: PI

10/2021 – 09/2026 NIH R01
 Dual targeting CXCR4 and CXCR7 prevents diabetic nephropathy
 Total direct support: \$1,750,000
 Yearly: \$350,000
 Effort: 20%
 Role: PI

10/2021 – 09/2026 NIH R01
 The role of neutral ceramidase in intestinal fucosylation and liver steatosis and inflammation
 Total direct support: \$1,500,000
 Yearly: \$300,000
 Effort: 5.0%
 Role: Co-investigator (PI: Zhongbin Deng)

Completed grants

01/2013–06/2016 American diabetes Association (1-13-JF-53).
 “Promotion of diabetic ischemic angiogenesis by SDF-1 β P2G mobilizing and SDF-1 β recruiting endothelial progenitor cells”
 Total support: \$414,000 (\$360,000 for direct//\$54,000 for indirect)
 Effort: 50%
 Role: PI

05/2014 – 04/2015 Juvenile Diabetes Research Foundation
 Innovative Grants/Pilot and Research Tool Grants (1-INO-2014-122-A-N)
 Reducing diabetic nephropathy by mobilizing endothelial progenitor cells with CXCR4 antagonists
 Total direct support: \$ 109,971.41
 Yearly: \$ 109,971.41
 Effort: 5%
 Role: PI

09/2010 – 08/2013 OR090617 from Department of Defense

“Acceleration of the Angiogenesis and Soft Tissue Regeneration for the Hind Limb Complex Wound by a Novel Approach: Combined Use of SDF-1betaP2G with FGF and Zinc”
Total support: \$581,086 (388,975 for direct and 192,111 for indirect)
Yearly: \$193,700/\$192,137/\$194,757
Effort: 20%
Role: Key Personnel (PI: Dr. Lu Cai)

PATENTS (List in chronological order and indicate patent status; e.g. pending, awarded)

EDITORIAL WORK (List in chronological order)

Member of Editorial Boards

2013 – Present	Journal of Cardiology and Therapy (ISSN 2309-6861)
2014 – Present	Journal of Cardiology & Clinical Research (ISSN: 2333-6676)
2016 – Present	Current Pharmaceutical Analysis (Regional Editor, USA)
2016 – Present	International Journal of Diabetes Research
2016 – Present	Current Diabetes Reviews
2020 – Present	Cardiovascular Toxicology
2021 – Present	Free Radical Biology & Medicine
2021 – Present	Cardiovascular Endocrinology (Review Editor)

Ad hoc Manuscript Review for Peer-Reviewed Journals

- 1) Acta Biochimica et Biophysica Sinica,
- 2) Acta Diabetologica,
- 3) Acta Pharmacologica Sinica,
- 4) Aging,
- 5) Basic & Clinical Pharmacology & Toxicology,
- 6) Biochimica et Biophysica Acta (BBA) - General Subjects,
- 7) Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease,
- 8) Biochemistry and Cell Biology,
- 9) Bioorganic & Medicinal Chemistry,
- 10) Biochemical Pharmacology,
- 11) Biomedicine & Pharmacotherapy,
- 12) BioMed Research International,
- 13) Biological Trace Element Research,
- 14) Chemosphere,
- 15) Clinica Chimica Acta,
- 16) Clinics and Research in Hepatology and Gastroenterology,
- 17) Cardiovascular Diabetology,
- 18) Clinical and Developmental Immunology,
- 19) Clinical and Translational Medicine,
- 20) Clinical Sciences,

- 21) Cellular Physiology and Biochemistry,
- 22) Cardiovascular Pathology,
- 23) Cancer Science,
- 24) Cell Death & Disease,
- 25) Colloids and Surfaces B Biointerfaces,
- 26) Computational and Structural Biotechnology Journal,
- 27) Cardiovascular Toxicology,
- 28) Circulation Journal,
- 29) Diabetologia,
- 30) Diabetes Metabolism Research and Reviews,
- 31) Experimental and Clinical Endocrinology & Diabetes,
- 32) Environmental Research,
- 33) European Journal of Pharmacology,
- 34) Expert Opinion On Therapeutic Targets,
- 35) FEBS Letters,
- 36) Free Radical Biology and Medicine,
- 37) Frontiers in Cell and Developmental Biology
- 38) Frontiers in Cardiovascular Medicine,
- 39) Frontiers in Pharmacology,
- 40) International Journal of Nanomedicine,
- 41) International Journal of Biological Sciences,
- 42) Investigational New Drugs,
- 43) Journal of Biomedical Materials Research_ Part A,
- 44) Journal of Cardiovascular Pharmacology,
- 45) Journal of Cellular and Molecular Medicine,
- 46) Journal of Diabetes Research,
- 47) Journal of Endocrinology,
- 48) Journal of Functional Foods,
- 49) Journal of Medical and Biological Engineering,
- 50) Journal of Molecular Cell Biology,
- 51) Journal of Molecular and Cellular Cardiology (JMCC),
- 52) Journal of Trace Elements in Medicine and Biology
- 53) Journal of Translational Medicine,
- 54) Life Sciences,
- 55) Molecules,
- 56) Metabolism,
- 57) Molecular and Cellular Neuroscience,
- 58) Molecular and Cellular Endocrinology,
- 59) Neuroscience Letters,
- 60) Nutrition, Metabolism & Cardiovascular Diseases,
- 61) Oncotarget,
- 62) Oxidative Medicine and Cellular Longevity,
- 63) Physiological Genomics,

- 64) Plos One,
- 65) PNAS,
- 66) Psychiatry Research,
- 67) Redox Biology,
- 68) Scientific Reports,
- 69) Sleep,
- 70) Trends in Endocrinology and Metabolism,
- 71) Toxicology and Applied Pharmacology,
- 72) The Journal of Nutritional Biochemistry,
- 73) The FASEB Journal,
- 74) The Journal of Pathology,
- 75) Toxicology Reports,
- 76) Toxicological Sciences

ABSTRACTS AND PRESENTATIONS (List in chronological order and number)

Abstracts for Poster Presentations at National/International/Regional Meetings

2005

1. **Yi Tan**, Shaohui Cai, Jun Du, Weifeng Ma, Zhjgang Guo, Hongyuan Chen, Xiaokun Li, Shaoxi Cai. C-terminal α -Helix of Human SDF-1 α is Vital for Receptor Activation but not Involved in receptor Binding. The 12th International Congress of Biorheology (12th ICB) and 5th International Conference for Clinical Hemorheology (5th ICCH), May 30 –June 3, 2005, Chongqing, China. (*Biotechnology*, 2005, 42(1.2)139).

2007

2. **Yi Tan**, Xiaoping Wu, Changjun Nie, Zhifeng Huang, Yadong Huang, Zhijian Su, Wenke Feng, Xiaokun Li. Expression and purification of human keratinocyte growth factor 2 with SUMO fusion in *Escherichia coli*. International Symposium on the Separation of Proteins, Peptides & Polynucleotides. ISPPP. October, 2007, Orlando, FL, USA.
3. Xiaokun Li, **Yi Tan** and Lu Cai. Diabetic Cardiomyopathy and Its Prevention by Metallothionein. Proceedings of the 7th International Congress on Coronary Artery Disease. October, 2007, Venice, Italy.

2008

4. **Yi Tan**, Xiaokun Li and Lu Cai. Enhancement of ischemic angiogenesis by a CXCR4 antagonist derived from human SDF-1 β is mediated by a monocyte-dependent mechanism. Basic Cardiovascular Sciences Conference 2008 Heart Failure: Molecular Mechanisms and Therapeutic Targets. July, 2008, Keystone Conference Center, Colorado, USA. (*Circulation Research* 105 (5): E60-E60, 2008)
5. **Yi Tan**, Xiaokun Li, Lu Cai. A novel CXCR4 antagonist derived from human SDF-1, SDF-1 β G2, stimulates angiogenesis in a murine model of acute hindlimb ischemia. The 47th Annual Meeting of the Society of Toxicology. March, 2008, Seattle, Washington, USA. *Toxicological Sciences*, 102 (Suppl. 1):457 (Ab # 2219), 2008.

2009

6. **Yi Tan**, Jian Xiao, Yanxia Lv, Xiaokun Li, Lu Cai. Cardiac Protection by basic FGF from Ischemia/Reperfusion-Induced Injury in Diabetic Rats. American Diabetes Association 69th Scientific Sessions. June 5 - 9, 2009, New Orleans, Louisiana, USA. *Diabetes* 58(Suppl. 1): A558 (Ab#: 2164), 2009.
7. **Yi Tan**, Jiancheng Xu, Lu Cai. Anti-apoptotic effect of metallothionein in the diabetic heart is mediated by suppression of endoplasmic reticulum stress. American Diabetes Association 69th Scientific Sessions. June 5 - 9, 2009, New Orleans, Louisiana, USA. *Diabetes* 58(Suppl. 1): A201 (Ab#: 749), 2009.

8. **Yi Tan**, Hengwu Xu, Jian Xiao, Xiaokun Li, and Lu Cai. Therapeutic Effect of aFGF/G-CSF/Zn on Diabetic Ulcer Healing and Mechanisms. The 48th Annual Meeting of the Society of Toxicology. March, 2009, Baltimore, Maryland, USA. *Toxicological Sciences*, 108 (Suppl. 1):392, (Ab # 1884), 2009.
9. Qiujun Liu, Guihua Zhou, **Yi Tan**, Lu Cai. Metallothionein protects cardiac cells against angiotensin II-induced apoptosis through suppression of p53 expression and activation in vitro and in vivo. The 48th Annual Meeting of the Society of Toxicology. March, 2009, Baltimore, Maryland, USA. *Toxicological Sciences*, 108 (Suppl. 1):46, (Ab # 226), 2009.
10. Jiancheng Xu, Qiuju Liu, **Yi Tan**, Guanjun Wang, Lu Cai. MT attenuates cardiac cell death via suppression of ER stress as one of the mechanisms against diabetic cardiomyopathy. The 48th Annual Meeting of the Society of Toxicology. March, 2009, Baltimore, Maryland, USA. *Toxicological Sciences*, 108 (Suppl. 1):61, (Ab # 297), 2009.
11. **Yi Tan**, Xiaokun Li, and Lu Cai. SDF-1 β P2G, a Novel CXCR4 Antagonist Derived from Human SDF-1 β : Pathophysiological Evaluation and Potential Clinical Application. *Research!Louisville*, Sept 24-27, 2009, University of Louisville, KY, USA.

2010

12. **Yi Tan**, Xiaokun Li, Zhanxiang Zhou and Lu Cai. Chronic alcohol caused cardiac cell death is mediated by angiotensin II activation of PKC-dependent NADPH oxidase-associated nitrosative damage. Ohio Valley Chapter of the Society of Toxicology 28th Annual Meeting on September 24, 2010, University of Cincinnati, Cincinnati, Ohio, USA.
13. **Yi Tan**, Zhangxiang Zhou, Lu Cai. A novel mechanism for alcoholic cardiomyopathy: Superoxide generation is a pivotal mediator for suppression of GAPDH that triggers cardiac imbalance of energy utilization, oxidative stress and remodeling. The 49th Annual Meeting of the Society of Toxicology. March, 2010, Salt Lake City, Utah, USA. *Toxicological Sciences*, 109 (Suppl. 1):372, (Ab # 1747), 2010.
14. Yang JL, **Tan Y**, Ma ZS, Maio LN, Zhao FL, Cai L. Lung fibrosis in experimental type 1 diabetic mouse model: Role of oxidative stress and inflammation. 70th Scientific Sessions (2010) - American Diabetes Association, 70th Scientific Sessions (2010) June 25 - 29, 2010. Orlando, Florida. *Diabetes* 59(Suppl. 1): A245 (Ab#: 906), 2010.
15. Lu Cai, **Yi Tan**. SDF-1 β P2G, a Novel CXCR4 Antagonist Derived from Human SDF-1 β : Pathophysiological Evaluation and Potential Clinical Application. The 49th Annual Meeting of the Society of Toxicology. March, 2010, Salt Lake City, Utah, USA. *Toxicological Sciences*, 109 (Suppl. 1):161, (Ab # 758), 2010.

2011

16. **Yi Tan**, Xiaokun Li, Sumanth D. Prabhu, Kenneth R Brittan, Qiang Chen, Xia Yin, Craig J. McClain, Zhanxiang Zhou, Lu Cai. Angiotensin II Plays a Critical Role in Chronic Alcohol Consumption-Induced Cardiac Nitrosative Damage, Cell Death, Remodeling, and Cardiomyopathy in a PKC/NADPH Oxidase-Dependent Manner. Ohio Valley Society of Toxicology 2011 Annual Meeting, September 23rd, 2011 at Boonshoft School of Medicine, Wright State University, Dayton, OH.
17. **Yi Tan**, Zhanxiang Zhou, Lu Cai. Ang II induced PKC/NOX activation-associated nitrosative damage plays a critical role in chronic alcohol-caused cardiac cell death and cardiomyopathy. The 50th Annual Meeting of the Society of Toxicology. March 6-10, 2011 at the Walter E. Washington Convention Center in Washington, D. C., USA. *Toxicological Sciences*, 120 (Suppl. 1): 44-45(Ab # 210), 2011.
18. **Yi Tan**, Xiaokun Li, Zhanxiang Zhou and Lu Cai. Induction of Cardiac Nitrosative Stress and Cell Death by Chronic Alcohol Consumption in an Angiotensin II-, PKC-, and NOX-Dependent Manner. The Basic Cardiovascular Sciences 2011 Scientific Sessions, Ritz-Carlton, New Orleans, Louisiana, July 18-21, 2011. *Circulation Research*, 109 (Supplement 12), Pages: AP051 to AP051.
19. Cai L, Yang J, **Tan Y** and Miao L. Angiotensin II plays a critical role in diabetic lung fibrosis via activation of NADPH oxidase-mediated nitrosative damage. The 50th Annual Meeting of the Society of Toxicology. March

6-10, 2011 at the Walter E. Washington Convention Center in Washington, D .C., USA. *Toxicological Sciences*, 120 (Suppl. 1): 277 (Ab # 1294), 2011.

20. Yang J, **Tan Y**, Miao L, Cai L. Lung fibrosis as a new possible diabetic complication is predominantly induced by angiotensin II. 71st Scientific Sessions (2011) - American Diabetes Association, June 24 - 28, 2011, San Diego Convention Center - San Diego, California. *Diabetes* 60 (Suppl. 1): A143 (Ab#: 517), 2011.
21. Zhao Y, **Tan Y**, Li W, Cai L. SDF-1beta protects cardiac cells from palmitate-induced nitrosative stress-mediated ER stress and cell death through activation of AMPK-mediated IL-6 excretion. 71st Scientific Sessions (2011) - American Diabetes Association, June 24 - 28, 2011, San Diego Convention Center - San Diego, California. *Diabetes* 60 (Suppl. 1): A154 (Ab#: 558), 2011.
22. Yi Tan, Craig J. McClain, Zhanxiang Zhou and Lu Cai. Chronic Alcohol Consumption Induces Cardiac Nitrosative Stress and Cell Death in an Ang II-, PKC-, and NOX-Dependent Manner. Experimental Biology Annual Meeting, 2011, April 9-13; Washington, DC. The FASEB Journal. 2011; 25:1096.7.

2012

23. **Yi Tan**, Xiaokun Li and Lu Cai. SDF-1 β P2G, a Novel CXCR4 Antagonist Derived from Human SDF-1 β , Enhances Endothelial Progenitor Cell Mobilization and Ischemic Angiogenesis. 3rd International Conference on Fibroblast Growth Factors, December 7-10, 2012, Yaoxi Dynasty Hotel, Wenzhou, China.
24. **Yi Tan**, Sumanth D. Prabhu, Kenneth R Brittan, Qiang Chen, Xia Yin, Craig J. McClain, Zhanxiang Zhou, Lu Cai. Angiotensin II/AT1 Plays a Critical Role in Alcoholic Cardiomyopathy through PKC/NADPH Oxidase activation pathway. 51st Annual Meeting of the Society of Toxicology, March 11-15, 2012 at the Moscone Convention Center in San Francisco, CA, USA. *Toxicological Sciences*, 126 (Suppl. 1): 327 (Ab # 1514), 2012.
25. **Tan Y**, Wang Y, Li X, Cai L. MT preservation of Akt2 function by inhibition of Akt negative regulators prevents diabetic inhibition of cardiac insulin signaling. The 72nd American Diabetes Association Scientific Sessions, June 8-12, 2012, Philadelphia, PA. *Diabetes* 61 (Suppl. 1): A107-108 (Ab#: 412-P), 2012. Guided Audio Poster Tour entitled, *Cardiovascular Disease in Patients with Diabetes—From Characterization to Mechanisms*.
26. Bai Y, Zheng Y, Chen Q, Miao X, Zhang C, Cui W, **Tan Y**, Cai L. Prevention by sulforaphane of diabetic cardiomyopathy is associated with Nrf2-regulation and activation. The 72nd American Diabetes Association Scientific Sessions, June 8-12, 2012, Philadelphia, PA. *Diabetes* 61 (Suppl. 1): A120 (Ab#: 462-P), 2012.
27. Cui W, Li B, **Tan Y**, Bai Y, Chen Q, Miao X, Miao L, Cai L. Zinc deficiency exacerbates diabetes-induced renal oxidative damage, inflammation and fibrosis via down-regulation of Nrf2 express. The 72nd American Diabetes Association Scientific Sessions, June 8-12, 2012, Philadelphia, PA. *Diabetes* 61 (Suppl. 1): A140 (Ab#: 547-P), 2012.
28. Zhao Y, Ding L, Dai J, Liu C, **Tan Y**, Cai L, Li W. SDF-1 β protects palmitate-induced fibrotic response in cardiac cells via activation of AMPK and p38 MAPK-mediated IL-6 secretion. 51st Annual Meeting of the Society of Toxicology, March 11-15, 2012 at the Moscone Convention Center in San Francisco, CA, USA. *Toxicological Sciences*, 126 (Suppl. 1): 92 (Ab # 428), 2012.
29. Wang B, Li, Y, **Tan Y**, Cai L. Alterations of gene methylation in the livers of rats and mice chronically exposed to low-dose cadmium. 51st Annual Meeting of the Society of Toxicology, March 11-15, 2012 at the Moscone Convention Center in San Francisco, CA, USA. *Toxicological Sciences*, 126 (Suppl. 1): 270 (Ab # 1255), 2012.
30. Yin X, **Tan Y**, Wang B, Zheng Y, Cai J, Cai L. Metallothionein protects intermittent hypoxia-induced cardiomyopathy by inhibition of cardiac oxidative damage, apoptosis, and inflammation. 51st Annual Meeting of the Society of Toxicology, March 11-15, 2012 at the Moscone Convention Center in San Francisco, CA, USA. *Toxicological Sciences*, 126 (Suppl. 1): 327 (Ab # 1516), 2012.

2013

31. **Yi Tan**, Xiaoqing Yan, Shanshan Zhou, Chi Zhang, Yong Li, Yan Li, Lu Cai. Metallothionein preservation of cardiac Akt2 function and insulin signaling by down-regulating TRB3 prevents diabetic cardiomyopathy.

Research!Louisville, Sept 24-27, 2013, University of Louisville, KY, USA.

32. Kyle Hawkins, Xiaoqing Yan, **Yi Tan**, Lu Cai. Different organs respond differently to type 1 diabetes in terms of the fibroblast growth factor-21. *Research!Louisville*, Sept 24-27, 2013, University of Louisville, KY, USA.
33. Charkribarti S, Zhang LB, Chen S, Zhang C, **Tan Y**, Cai L, Liang G, Jin LT, Li XK. The effects of a modified acidic fibroblast growth factor in diabetic cardiomyopathy. *Diabetes* 62 (Suppl. 1): A120 (#473-P), 2013.
34. Zhang C, **Tan Y**, Miao X, Bai Y, Xin Y, Li XK, Cai L*. Akt mediated signaling pathway is associated with anti-inflammatory and antioxidative effect of FGF21 in the heart of diabetic mice. *Diabetes* 62 (Suppl. 1): A593-A594 (#2321-PO), 2013.
35. **Yi Tan**, Xiaokun Li and Lu Cai. Cardiac Overexpression of Metallothionein Rescue Akt2 Deficiency-Induced Impairment of Cardiac Insulin Signaling and Cardiac Function. The American Diabetes Association's 73rd Scientific Sessions, June 21-25, 2013 in Chicago, Illinois. **Tan Y, Li XK, Cai L***. *Cardiac overexpression of metallothionein rescue Akt2 deficiency-induced impairment of cardiac insulin signaling and cardiac function. Diabetes* 62 (Suppl. 1): A110 (#431-P), 2013.
36. **Yi Tan**, Yuehui Wang, Xiaokun Li, Lu Cai. Metallothionein preservation of Akt2 function by down-regulating TRB3 restores diabetic inhibition of cardiac insulin signaling. The 52nd Annual Meeting of the Society of Toxicology, March 10-14, 2013 at the Henry B. Gonzalez Convention Center in San Antonio, Texas. **Tan Y, Wang Y, Li X, Cai L***. *Metallothionein Preservation of Akt2 Function by Down-Regulating TRB3 Restores Diabetic Inhibition of Cardiac Insulin Signaling. Toxicological Sciences*, 132 (Suppl. 1): 244 (Ab # 1142), 2013.
37. B. Wang, L. Yang, **Y. Tan** and C. Lu. Alteration of Gene Methylation in the Testis of Rats and Mice Chronically Exposed to Low-Dose Cadmium. The 52nd Annual Meeting of the Society of Toxicology, March 10-14, 2013 at the Henry B. Gonzalez Convention Center in San Antonio, Texas. Abstract Number/Poster Board number: 531 Poster Board -XXX.

2014

38. **Yi Tan**, Xiaoqing Yan and Lu Cai. A Novel CXCR4 Antagonist SDF-1 β P2G Enhances Ischemic Angiogenesis Via Endothelial Progenitor Cell Mobilization, Infiltration and Incorporation. Chinese Diabetes Society 2014 Annual Meeting, Baiyun International Convention Center, Guangzhou, China, November 6-9, 2014. *Diabetes/Metabolism Research and Reviews*, Volume 30 Supplement 3 October 2014.
39. **Yi Tan**, Chi Zhang, Lu Cai. Fibroblast growth factor 21 protects the diabetic heart from cell death via Erk1/2-dependent signaling pathway. *Research!Louisville*, Sept 15-18, 2014, University of Louisville, KY, USA.
40. **Yi Tan**, Xiaoqing Yan, Shanshan Zhou, Chi Zhang, Jun Zeng, Yong Li, Yan Li, Lu Cai. Metallothionein Preservation Of Cardiac Akt2 Signaling By Down-regulating Trb3 Prevents Diabetic Cardiomyopathy. Basic Cardiovascular Sciences 2014 Scientific Sessions: Pathways to Cardiovascular Therapeutics, July 14-17, 2014 at the Paris Las Vegas in Las Vegas, Nevada.
41. **Yi Tan**, Xiaoqing Yan, Shanshan Zhou, Chi Zhang, Jun Zeng, Yong Li, Yan Li, Lu Cai. Metallothionein prevents diabetic cardiomyopathy by attenuation of TRB3-mediated cardiac insulin resistance. The American Diabetes Association's 74th Scientific Sessions, June 13-17, 2014 in San Francisco, California. Abstract #2014-A-3827-Diabetes. Guided Audio Poster Tour entitled, *Translational Studies of Cardiovascular Disease in Diabetes. Diabetes* 63 (Suppl. 1): A108-A109 (#411-P), 2014.
42. Xiaoqing Yan, **Yi Tan**, Shanshan Zhou, Zhiguo Zhang, Chi Zhang, Lu Cai. FGF21 deficiency exacerbates diabetic cardiomyopathy by aggravating cardiac lipid accumulation. The American Diabetes Association's 74th Scientific Sessions, June 13-17, 2014 in San Francisco, California. Abstract #2014-A-3764-Diabetes.
43. Xiaoqing Yan, Lu Cai and **Yi Tan**. A Novel CXCR4 Antagonist SDF-1 β P2G Enhances Ischemic Angiogenesis Via Endothelial Progenitor Cell Mobilization, Infiltration and Incorporation. The 53rd Annual Meeting of the Society of Toxicology, March 23-27, 2014 at the Phoenix Convention Center in Phoenix, Arizona. Abstract Number/Poster Board number: 1901 Poster Board -302. *The Toxicologist* 138 (Issue 1): 499(#1901), 2014.

44. **Yi Tan**, Xiaoqing Yan, Shanshan Zhou, Chi Zhang, Yong Li, Yan Li, Lu Cai. Metallothionein preservation of cardiac Akt2 function and insulin signaling by down-regulating TRB3 prevents diabetic cardiomyopathy. The 53rd Annual Meeting of the Society of Toxicology, March 23-27, 2014 at the Phoenix Convention Center in Phoenix, Arizona. Abstract Number/Poster Board number: 483 Poster Board -251. *The Toxicologist* 138 (Issue 1): 126(#483), 2014.
45. S. Zhou, X. Yin, **Y. Tan**, W. Feng, P. Epstein, J. Cai and L. Cai. Metallothionein As a Compensatory Component Prevents Intermittent Hypoxia-Induced Cardiomyopathy in Mice. The 53rd Annual Meeting of the Society of Toxicology, March 23-27, 2014 at the Phoenix Convention Center in Phoenix, Arizona. *The Toxicologist* 138 (Issue 1): 126(#480), 2014
46. Z. Zhang, S. Zhou, X. Yan, **Y. Tan**, K. Kim, K. Kim, Y. Zheng, L. Cai and Y. Kim. Methyl Honokiol Prevention of High-Fat Diet-Induced Cardiac Hypertrophy and Dysfunction Is Associated with Attenuating Lipid Accumulation and Insulin Resistance. The 53rd Annual Meeting of the Society of Toxicology, March 23-27, 2014 at the Phoenix Convention Center in Phoenix, Arizona. *The Toxicologist* 138 (Issue 1): 126(#482), 2014.
47. Y. Zhao, X. Chen, J. Dai, **Y. Tan**, L. Cai and W. Li. Repetitive Exposures to Low Dose X-Rays Radiation Attenuates Testicular Apoptotic Cell Death in Type 2 Diabetic Rats via Akt-Mediated Nrf2 Activation. The 53rd Annual Meeting of the Society of Toxicology, March 23-27, 2014 at the Phoenix Convention Center in Phoenix, Arizona. *The Toxicologist* 138 (Issue 1): 556(#2125), 2014.
48. Yuguang Zhao, Wei Li, Xiao Chen, Junying Dai, **Yi Tan**, Lu Cai*. SDF-1 β Protects Cardiac Cells From High Fat-Induced Fibrosis Through Its Receptor CXCR7-Mediated AMPK/P38 MAPK Activation and IL-6 Excretion. *JACC* 63, (Issue 2S): A855, 2014.
49. Zhiguo Zhang, Xiaoqing Yan, Yang Zheng, **Yi Tan**, Lu Cai*, Young Heui Kim. Magnolia Extract and its Bioactive Constituent 4-O-methylhonokiol Prevent Cardiac Hypertrophy via Suppression of Lipid Accumulation, Oxidative Stress, and Inflammation in Obesity Mice Induced by High-Fat Diet. *Diabetes* 63 (Suppl. 1): A502 (#1957-P), 2014.

2015

50. Hao Wu, Lili Kong, **Yi Tan**, Paul Epstein, Lining Miao, Lu Cai. C66 ameliorates diabetic nephropathy by both inhibiting miR-21 and upregulating Nrf2 function via increase in miR-200a. The 75th Scientific Sessions of American Diabetes Association, June 5-9, 2015, Boston, MA.
51. Xiaozhen Dai, Jun Zeng, Xiaoqing Yan, Jing Chen, Jun Chen, Yan Li, **Yi Tan**. Overexpression of CXCR7 enhances EPC-mediated angiogenesis in diabetic hind limb ischemia via activating Nrf2 signal pathway. *Research!Louisville*, October 27-30, 2015, University of Louisville, KY, USA.
52. Jun Zeng, Xiaozhen Dai, Jing Chen, Jun Chen, Yan Li, **Yi Tan**. Sitagliptin preservation of EPC function via augmenting autophagy enhances angiogenesis in hind limb ischemia in db/db mice. *Research!Louisville*, October 27-30, 2015, University of Louisville, KY, USA.
53. Qian Lin, Furong Tian, Kaili Mao, Yingzheng Zhao, **Yi Tan**. Long-term neuroprotection of decellularized brain extracellular matrix containing bFGF by intracerebral transplantation in a rat Parkinson's disease model. *Research!Louisville*, October 27-30, 2015, University of Louisville, KY, USA.
54. Shanshan Zhou, Xia Yin, Jingpeng Jin, Ying Xin, **Yi Tan**, Zhiguo Zhang, Weixia Sun, Taixing Cui, Jun Cai, Yang Zheng, Lu Cai. Nrf2 protects from intermittent hypoxia-induced cardiomyopathy via metallothionein-dependent and independent mechanisms. The Basic Cardiovascular Sciences 2015 Scientific Sessions scheduled for July 13-16, 2015 at the Hilton New Orleans Riverside hotel in New Orleans, Louisiana.

55. Ying Xin, Yang Bai, Xin Jiang, Shanshan Zhou, Yuehui Wang, Kupper A. Wintergerst, **Yi Tan**, Taixing Cui, Lu Cai. Activation of Nrf2 by Sulforaphane via the AKT/GSK-3 β /Fyn Pathway Prevents Angiotensin II-induced Cardiomyopathy. The Basic Cardiovascular Sciences 2015 Scientific Sessions scheduled for July 13-16, 2015 at the Hilton New Orleans Riverside hotel in New Orleans, Louisiana.
56. Chi Zhang, Xiaoqing Yan, Zhifeng Huang, Junlian Gu, Shanshan Zhou, Minglong Shao, Wenke Feng, Xiaokun Li, **Yi Tan**. Fibroblast growth factor 21 prevents diabetic cardiomyopathy via extracellular signal-regulated kinases1/2-dependent signaling pathway in mice. The Basic Cardiovascular Sciences 2015 Scientific Sessions scheduled for July 13-16, 2015 at the Hilton New Orleans Riverside hotel in New Orleans, Louisiana.
57. Shudong Wang, Xiaoqing Yan, Jing Chen, Jun Zeng, Jun Chen, **Yi Tan**. SDF-1 Protects from Diabetic Cardiomyopathy. The Basic Cardiovascular Sciences 2015 Scientific Sessions scheduled for July 13-16, 2015 at the Hilton New Orleans Riverside hotel in New Orleans, Louisiana.
58. Edward Carlson, Jennifer Chhoun, Donna Laturus, Shirong Zheng, Paul Epstein and **Yi Tan**. Renoprotection from Diabetic Complications in OVE Transgenic Mice by Endothelial Cell Specific Overexpression of Metallothionein. Experimental Biology Annual Meeting, 2015, March 28-April 1; Boston, MD.

2016

59. Xiaozhen Dai, Xiaoqing Yan, Jun Zeng, Jing Chen, Jun Chen, Yan Li, **Yi Tan**. Elevating CXCR7 improves angiogenic function of EPCs via Akt/GSK-3 /Fyn-mediated Nrf2 activation in diabetic limb ischemia. Ohio Valley Society of Toxicology Annual Meeting Program October 28th 2016, Eli Lilly Company.
60. Qian Lin, Lu Cai, **Yi Tan**. Fibroblast Growth Factor 1 Ameliorates Diabetic Nephropathy Through an Anti-inflammatory Mechanism. Ohio Valley Society of Toxicology Annual Meeting Program October 28th 2016, Eli Lilly Company.
61. Junlian Gu, Shudong Wang, **Yi Tan**, Lu Cai. The P53-specific inhibitor Pifithrin- α protects from diabetic cardiomyopathy through attenuating the early-stage apoptosis and improving the late-stage defect of glycolysis and angiogenesis. Ohio Valley Society of Toxicology Annual Meeting Program October 28th 2016, Eli Lilly Company.
62. Qian Lin, Lu Cai, **Yi Tan**. Fibroblast Growth Factor 1 Ameliorates Diabetic Nephropathy Through an Anti-inflammatory Mechanism. Research!Louisville 2016. October 11-14, 2016, Kosair Charities Clinical & Translational Research Building, Health Sciences Center.
63. Zheng Xu, Shudong Wang, Honglei Ji, Zhiguo Zhang, Jing Chen, **Yi Tan**, Kupper Wintergerst, Yang Zheng, Jian Sun, Lu Cai. Broccoli sprout extracts prevented diabetic cardiomyopathy in db/db mice: The importance of up-regulated Nrf2 expression and function. The Basic Cardiovascular Sciences 2016 Scientific Sessions: Pathways to Cardiovascular Therapeutics, scheduled for July 18-21, 2016 at the Hyatt Regency Phoenix Hotel, Phoenix, Arizona.
64. Xiaozhen Dai, Xiaoqing Yan, Jun Zeng, Jing Chen, Lu Cai, **Yi Tan**. Upregulation of CXCR7 stimulates Nrf2 function via Akt/GSK-3 β /Fyn pathway, resulting in enhancing EPC-mediated angiogenesis in diabetic hind limb ischemia. "Metabolic Vascular Disease Symposium" and "China Night" on May 4, Wednesday 2016, at Nashville, Tennessee.

65. Shudong Wang, Changchun, Junlian Gu, Xiaoqing Yan, Jing Chen, Jun Chen, Lu Cai, Quan Liu, Yang Zheng, **Yi Tan**. Stromal Cell-derived Factor-1 Prevents From Diabetic Cardiomyopathy Via Cxcr7/ampk-mediated Nrf2 Activation In Type 2 Diabetic Mice. The Basic Cardiovascular Sciences 2016 Scientific Sessions: Pathways to Cardiovascular Therapeutics, scheduled for July 18-21, 2016 at the Hyatt Regency Phoenix Hotel, Phoenix, Arizona.
66. Xiaozhen Dai, Jun Zeng, Xiaoqing Yan, Jing Chen, Jun Chen, Yan Li, **Yi Tan**. CXCR7 enhances EPC-mediated angiogenesis in diabetic hind limb ischemia via Akt/GSK-3 β /Fyn activation of Nrf2. 76th Scientific Sessions of American Diabetes Association. June 10 - 14, 2016, New Orleans, Louisiana.
67. Qian Lin, Furong Tian, Kaili Mao, Yingzheng Zhao, **Yi Tan**. Long-term neuroprotection of decellularized brain extracellular matrix containing bFGF by intracerebral transplantation in a rat Parkinson's disease model. The 55th Annual Meeting of the Society of Toxicology, March 13-17, 2016 at the Convention Center in New Orleans, Louisiana.
68. Xiaozhen Dai, Jun Zeng, Xiaoqing Yan, Jing Chen, Jun Chen, Yan Li, **Yi Tan**. Overexpression of CXCR7 enhances EPC-mediated angiogenesis in diabetic hind limb ischemia through activating Nrf2 signal pathway. The 55th Annual Meeting of the Society of Toxicology, March 13-17, 2016 at the Convention Center in New Orleans, Louisiana.
69. Jun Zeng, Xiaozhen Dai, Jing Chen, Jun Chen, Yan Li, **Yi Tan**. Sitagliptin preservation of EPC function via augmenting autophagy enhances angiogenesis in hind limb ischemia in db/db mice. The 55th Annual Meeting of the Society of Toxicology, March 13-17, 2016 at the Convention Center in New Orleans, Louisiana.

2017

70. Xiaozhen Dai, Jun Zeng, Xiaoqing Yan, Jing Chen, Kupper A. Wintergerst, Lu Cai, **Yi Tan**. Sitagliptin preservation of EPC function via augmenting autophagy enhances ischemic angiogenesis in diabetes. American Diabetes Association 77th Scientific Sessions, June 9 - 13, 2017, San Diego, California.
71. Yixuan Sun, Yamei Han, Feifei Zhang, Zhimin Hu, Aoyuan Cui, Fengguang Ma, Zhengshuai Liu, Qi Gong, Xuqing Chen, Jing Gao, **Yi Tan**, Xin Gao, Yu Li. Hepatic SIRT1 deficiency abolishes berberine-mediated activation of autophagy, leading to hepatic steatosis in diet-induced obesity mice. American Diabetes Association 77th Scientific Sessions, June 9 - 13, 2017, San Diego, California.
72. Qian Lin, Lu Cai, **Yi Tan**. Fibroblast Growth Factor 1 Prevents Diabetic Nephropathy Through an Anti-JNK/NF- κ B Signal pathway. American Diabetes Association 77th Scientific Sessions, June 9 - 13, 2017, San Diego, California.
73. Elevating CXCR7 improves angiogenic function of EPCs via Akt/GSK-3 β /Fyn-mediated Nrf2 activation in diabetic limb ischemia. EXPERIMENTAL BIOLOGY 2017, April 22-26, 2017, McCormick Place Convention Center, 2301 S. King Drive, Chicago, IL 60616.
74. Qian Lin, Lu Cai, **Yi Tan**. Fibroblast Growth Factor 1 Ameliorates Diabetic Nephropathy Through an Anti-inflammatory Mechanism. EXPERIMENTAL BIOLOGY 2017, April 22-26, 2017, McCormick Place Convention Center, 2301 S. King Drive, Chicago, IL 60616.
75. Xiaozhen Dai, Jun Zeng, Xiaoqing Yan, Jing Chen, Kupper A. Wintergerst, Lu Cai, **Yi Tan**. Sitagliptin preservation of EPC function via augmenting autophagy enhances ischemic angiogenesis in hind limb

- ischemia in db/db mice. Baltimore, Maryland, March 12–16, 2017, for the SOT 56th Annual Meeting and ToxExpo.
76. Qian Lin, Zhifeng Huang, Lintao Song, Yuanyuan Qian, Lu Cai, Moosa Mohammadi, **Yi Tan**. Fibroblast Growth Factor 1 Ameliorates Diabetic Nephropathy Through an Anti-inflammatory Mechanism. Baltimore, Maryland, March 12–16, 2017, for the SOT 56th Annual Meeting and ToxExpo.
 77. Qian Lin, Paul N. Epstein, Lu Cai, **Yi Tan**. A novel fibroblast growth factor 1 variant reverses nonalcoholic fatty liver disease in type 2 diabetes. *Research!Louisville 2017*, September 11 – 15, 2017 at the University of Louisville Kosair Charities Clinical and Translational Research Building (KCCTRB) at 505 South Hancock St, Louisville, KY 40202.
 78. Kai Wang, Xiaozhen Dai, Jing Chen, Paul N. Epstein, Lu Cai, Kupper A. Wintergerst, **Yi Tan**. CXCR7 agonist TC14012 improves angiogenic function of endothelial progenitor cells in diabetic limb ischemia. *Research!Louisville 2017*, September 11 – 15, 2017 at the University of Louisville Kosair Charities Clinical and Translational Research Building (KCCTRB) at 505 South Hancock St, Louisville, KY 40202.
 79. Jian Zhang, Zheng Xu, Yi Tan, and Lu Cai. HDAC3 inhibition activates Nrf2 function to prevent liver damage and preserve hepatic FGF21 synthesis and secretion, leading to the aortic protection, in OVE26 diabetic mice. *Research!Louisville 2017*, September 11 – 15, 2017 at the University of Louisville Kosair Charities Clinical and Translational Research Building (KCCTRB) at 505 South Hancock St, Louisville, KY 40202.
 80. Junlian Gu, **Yi Tan**, and Lu Cai. Inhibition of p53 attenuates steatosis and liver injury in a type 1 diabetic mouse model. *Research!Louisville 2017*, September 11 – 15, 2017 at the University of Louisville Kosair Charities Clinical and Translational Research Building (KCCTRB) at 505 South Hancock St, Louisville, KY 40202.
 81. Xinyue Hu, Jian Zhang, **Yi Tan**, Lu Cai, Yang Zheng. Protective Effect of Dimethyl Fumarate on T1D-induced Diabetic Cardiomyopathy Probably via Nrf2 pathway. *Research!Louisville 2017*, September 11 – 15, 2017 at the University of Louisville Kosair Charities Clinical and Translational Research Building (KCCTRB) at 505 South Hancock St, Louisville, KY 40202.
 82. Xinyue Hu, **Yi Tan**, Lu Cai. Protective Effect of Dimethyl Fumarate on Diabetic Cardiomyopathy Possibly Via Nrf2 Pathway in Type 1 Diabetes Mice. Ohio Valley Society of Toxicology Annual Meeting. December 1, 2017. Stewart Center, Purdue University, West Lafayette, IN.
 83. Xin Lian, **Yi Tan**, Yaowen Fu, Lu Cai. Fenofibrate induces human prostate cancer cell apoptosis likely via Jak2-Stat3 pathway. Ohio Valley Society of Toxicology Annual Meeting. December 1, 2017. Stewart Center, Purdue University, West Lafayette, IN.
 84. Qian Lin, Paul N. Epstein, Lu Cai, **Yi Tan**. A novel fibroblast growth factor 1 variant reverses nonalcoholic fatty liver disease in type 2 diabetes. Ohio Valley Society of Toxicology Annual Meeting. December 1, 2017. Stewart Center, Purdue University, West Lafayette, IN.
 85. Jian Zhang, Zheng Xu, Junlian Gu, Saizhi Jiang, **Yi Tan**, Quan Liu, Yang Zheng, Jonathan H. Freedman, Jian Sun, and Lu Cai. HDAC3 inhibition in diabetic mice activates Nrf2 function preventing diabetes-induced liver damage and FGF21 synthesis and secretion leading to aortic protection. Ohio Valley Society of Toxicology Annual Meeting. December 1, 2017. Stewart Center, Purdue University, West Lafayette, IN.

86. Junlian Gu, Shudong Wang, Hua Guo, **Yi Tan**, Chi Zhang, and Lu Cai. Inhibition of p53 prevents diabetic cardiomyopathy by preventing early-stage apoptosis and cell senescence, reduced glycolysis, and impaired angiogenesis. Ohio Valley Society of Toxicology Annual Meeting. December 1, 2017. Stewart Center, Purdue University, West Lafayette, IN.
87. Kai Wang, Xiaozhen Dai, Jing Chen, Paul N. Epstein, Lu Cai, Kupper A. Wintergerst, **Yi Tan**. CXCR7 agonist TC14012 improves angiogenic function of endothelial progenitor cells in diabetic limb ischemia. Ohio Valley Society of Toxicology Annual Meeting. December 1, 2017. Stewart Center, Purdue University, West Lafayette, IN.

2018

88. Kai Wang, Xiaozhen Dai, Jing Chen, Paul N. Epstein, Lu Cai, Kupper A. Wintergerst, Yan Qian, **Yi Tan**. CXCR7 agonist TC14012 improves angiogenic function of endothelial progenitor cells in diabetic limb ischemia. Society of Toxicology (SOT) 57th Annual Meeting, Mar 11 - 15, 2018, San Antonio, Texas.
89. Qian Lin, Paul N. Epstein, Lu Cai, **Yi Tan**. A novel fibroblast growth factor 1 variant reverses nonalcoholic fatty liver disease in type 2 diabetes. Society of Toxicology (SOT) 57th Annual Meeting, Mar 11 - 15, 2018, San Antonio, Texas.
90. Qian Lin, Paul N. Epstein, Lu Cai, **Yi Tan**. A novel fibroblast growth factor 1 variant reverses nonalcoholic fatty liver disease in type 2 diabetes. The American Diabetes Association 78th Scientific Sessions, June 22-26, 2018 in Orlando, Florida.
91. Kai Wang, Xiaozhen Dai, Jing Chen, Paul N. Epstein, Lu Cai, Kupper A. Wintergerst, Yan Qian, **Yi Tan**. CXCR7 Agonist TC14012 Improves Angiogenic Function of Endothelial Progenitor Cells in Diabetic Limb Ischemia. The American Diabetes Association 78th Scientific Sessions, June 22-26, 2018 in Orlando, Florida.
92. Kai Wang, Xiaozhen Dai, Junhong He, Chengkui Yang, Jing Chen, Jianxiang Xu, Zhongbin Deng, Edward C. Carlson, Kupper A. Wintergerst, Paul N. Epstein, Lu Cai, Yan Qian, **Yi Tan**. Metallothionein improves angiogenic function of endothelial progenitor cells via HIF-1 α /SDF-1/Akt pathway in diabetic limb ischemia. *Research!Louisville 2018*, October 8 – 12, 2018 at the University of Louisville Kosair Charities Clinical and Translational Research Building (KCCTRB) at 505 South Hancock St, Louisville, KY 40202.

2019

93. Kai Wang, Xiaozhen Dai, Junhong He, Chengkui Yang, Jing Chen, Jianxiang Xu, Zhongbin Deng, Edward C. Carlson, Kupper A. Wintergerst, Paul N. Epstein, Lu Cai, Yan Qian, **Yi Tan**. Metallothionein Improves Angiogenic Function Of Endothelial Progenitor Cells Via Hif-1 α /sdf-1/Akt Pathway in Diabetic Limb Ischemia. The SOT 58th Annual Meeting and ToxExpo, March 10–14, 2019, at the Baltimore Convention Center in Baltimore, Maryland.
94. Qian Lin, Zhifeng Huang, Xiaoqing Yan, Zhengshuai Liu, Junlian Gu, Chao Zheng, Hongxue Shi, Maiying Kong, Moosa Mohammadi, Paul N. Epstein, Kupper A. Wintergerst, Daniel J. Conklin, Xiaokun Li, Lu Cai, Yu Li, **Yi Tan**. An Endocrinized Fibroblast Growth Factor 1 Variant Reverses Nonalcoholic Fatty Liver Disease via Activating AMPK in Type 2 Diabetes. The American Diabetes Association 79th Scientific Sessions, June 7 - 11, 2019, San Francisco, California.

95. Kai Wang, Xiaozhen Dai, Junhong He, Chengkui Yang, Jing Chen, Kupper A. Wintergest, Paul N. Epstein, Lu Cai, **Yi Tan**. Metallothionein Improves Angiogenic Function Of Endothelial Progenitor Cells Via Hif-1 α /sdf-1/akt Pathway In Diabetic Limb Ischemia. The American Diabetes Association 79th Scientific Sessions, June 7 - 11, 2019, San Francisco, California.
96. Kai Wang, Xiaozhen Dai, Junhong He, Chengkui Yang, Kupper A. Wintergest, Paul N. Epstein, Lu Cai, Yi Tan. Endothelial-specific Overexpression Of Metallothionein Prevents Diabetes Mellitus-induced Impairment In Ischemia Angiogenesis Via Preservation Of Hif-1 α /sdf-1 In Endothelial Progenitor Cells. BCVS Scientific Sessions 2019, Basic Cardiovascular Sciences Scientific Sessions, July 29–August 1, 2019, Westin Boston Waterfront Boston, MA.
97. Qian Lin, Zhifeng Huang, GenXiang Cai, Paul N. Epstein, Kupper A. Wintergerst, Daniel J. Conklin, Lu Cai, Yu Li, **Yi Tan**. An Endocrinized Fibroblast Growth Factor 1 Variant Reverses Nonalcoholic Fatty Liver Disease via Activating AMPK in Type 2 Diabetes. 2019 Annual Meeting of the Ohio Valley Society of Toxicology on Friday, October 18, 2019 at Procter & Gamble Center, 8700 Mason Montgomery Rd, Mason, Ohio.

2020

98. Qian Lin, Paul N. Epstein, Lu Cai, Yu Li, **Yi Tan**. An Endocrinized Fibroblast Growth Factor 1 Variant Reverses Nonalcoholic Fatty Liver Disease via Activating AMPK in Type 2 Diabetes. The 59th Annual Meeting of the Society of Toxicology, March 15-19, 2020 at the Anaheim Convention Center in Anaheim, California.
99. Kai Wang, Xiaozhen Dai, Jing Chen, Feixia Shen, Lu Cai, **Yi Tan**. Endothelial-specific Overexpression Of Metallothionein Prevents Diabetes Mellitus Induced Impairment In Ischemia Angiogenesis Via Preservation Of Hif-1 α /SDF-1/VEGF Signaling In Endothelial Progenitor Cells. The 80th Scientific Sessions of the American Diabetes Association. June 12-16, Chicago, IL, USA.
100. Qian Lin, Genxiang Cai, Zhengshuai Liu, Jingya Li, Jia Li, Kupper A. Wintergerst, Paul N. Epstein, Lu Cai, Yu Li, **Yi Tan**. Activating AMPK mediates FGF1 protection from NAFLD in diabetic mice. The 80th Scientific Sessions of the American Diabetes Association. June 12-16, Chicago, IL, USA.
101. Jia Li, Shunying Jin, Michelle Barati, Sanjana Rane, Qian Lin, Tianjiao Ma, **Yi Tan**, Lu Cai, and Madhavi Rane. HDAC inhibition induced JNK activation, CTGF expression and NF-E2 degradation promoting pro-fibrotic signaling in renal proximal tubules. The 80th Scientific Sessions of the American Diabetes Association. June 12-16, Chicago, IL, USA.
102. Qian Lin, Zhifeng Huang, Genxiang Cai, Maiying Kong, Daniel J. Conklin, Paul N. Epstein, Kupper A. Wintergerst, Moosa Mohammadi, Lu Cai, Xiaokun Li, Yu Li, **Yi Tan**. An endocrinized fibroblast growth factor 1 variant prevents and reverses NAFLD via activating AMPK-mediated pathways. the 2020 Virtual Annual Meeting of the Ohio Valley Society of Toxicology on Friday, November 6, 2020.

2021

103. Xiaozhen Dai, Jiawei Fan, Lu Cai, **Yi Tan**. Nrf2 Improves Angiogenic Function of Diabetic Endothelial Progenitor Cells through Transcriptional Reprogramming of Mitochondrial Metabolism. Virtual 2021 SOT Annual Meeting and ToxExpo will occur March 12–26, 2021.
104. Qian Lin, Zhifeng Huang, Genxiang Cai, Maiying Kong, Daniel J. Conklin, Paul N. Epstein, Kupper A. Wintergerst, Moosa Mohammadi, Lu Cai, Xiaokun Li, Yu Li, **Yi Tan**. A non-mitogenic FGF1 ^{Δ HBS} variant

protects from nonalcoholic fatty liver disease via activating AMPK-mediated pathways. Virtual 2021 SOT Annual Meeting and ToxExpo will occur March 12–26, 2021.

ORAL PRESENTATIONS (List in chronological order and number. State name of conference and location)

National/International and Regional Meetings

- 2010 Invited oral presentation: Chronic alcohol-caused cardiac cell death is mediated by angiotensin II activation of PKC-dependent NADPH oxidase-associated nitrosative damage. The 20th International Conference On Chelation (20thICOC) for the Treatment of Thalassaemia, Cancer and other Diseases related to Metal and Free Radical Imbalance & Toxicity, October 22 to 25, 2010, Grand Rapids, MI, USA.
- 2011 Best Platform Presentation: Angiotensin II Plays a Critical Role in Chronic Alcohol Consumption-Induced Cardiac Nitrosative Damage, Cell Death, Remodeling, and Cardiomyopathy in a PKC/NADPH Oxidase-Dependent Manner. Ohio Valley Society of Toxicology 2011 Annual Meeting, September 23rd, 2011 at Boonshoft School of Medicine, Wright State University, Dayton, OH.
- 2012 Invited oral presentation: SDF-1 β P2G, a Novel CXCR4 Antagonist Derived from Human SDF-1 β , Enhances Endothelial Progenitor Cell Mobilization and Ischemic Angiogenesis. The 3rd International Conference on Fibroblast Growth Factors, December 7-10, 2012, Yaoxi Dynasty Hotel, Wenzhou, China.
- 2013 Invited oral presentation: Angiotensin II/AT1 involvement in alcoholic cardiomyopathy. The 1st Changchun Forum for Cardiovascular Diseases and Dietary Nutrition, April 30, 2013, the First Bethune Hospital of Jilin University, Changchun China.
- 2013 Invited oral presentation: SDF-1 β P2G, a novel CXCR4 antagonist derived from human DF-1 β , enhances endothelial progenitor cell mobilization and ischemic angiogenesis. The Fifth Scientific Meeting of the Chinese-American Diabetes Association (CADA), June 20-21, 2013, Congress Plaza Hotel, Chicago, IL.
- 2013 Invited oral presentation: SDF-1 β P2G, a Novel CXCR4 Antagonist, Enhances Endothelial Progenitor Cell Mobilization and Ischemic Angiogenesis: A pre-clinical study. Department of Pediatrics, University of Louisville, Sept 16, 2013, Norton Hospital Wade Mountz Auditorium, second floor, Louisville, KY.
- 2013 Invited oral presentation: A Novel CXCR4 Antagonist, Enhances Endothelial Progenitor Cell Mobilization and Ischemic Angiogenesis. Southern Zhejiang Endocrinologic & Metabolic Diseases Forum (2013) and the 4th Chinese-American Diabetic Complication Forum. October 11-13, 2013, Wenzhou Wanhao Grand Hotel, Wenzhou, China.
- 2014 Invited oral presentation: Metallothionein preservation of cardiac Akt2 signaling by down-regulating TRB3 prevents diabetic cardiomyopathy. The First Annual the Academy of Cardiovascular Research Excellence (ACRE) and the Acta Pharmacologica Sinica (APS) Symposium: Novel Therapeutic Approaches on Sunday, July 13, 2014 in Paris Las Vegas, 3655 Las Vegas Blvd South, Las Vegas, Nevada, USA.
- 2014 Invited oral presentation: Metallothionein preservation of cardiac Akt2 signaling by down-regulation of TRB3 prevents diabetic cardiomyopathy. The 25th Great Wall International Congress of Cardiology & Asia Pacific Heart Congress 2014 & International Congress of Cardiovascular Prevention and Rehabilitation, October 16-19, 2014 in Beijing, China.
- 2015 Invited oral presentation: Fibroblast growth factor 21 prevents diabetic cardiomyopathy by attenuating cardiac lipotoxicity via ERK1/2-dependent signaling pathway in mice. The 6th biennial symposium of the Chinese American Diabetes Association, June 4-5, 2015 in Boston, Courtyard Boston Downtown (275 Tremont Street, Boston, MA 02116).
- 2015 Invited oral presentation: Activation of Nrf2 by Sulforaphane via AKT/GSK-3 β /Fyn Pathway Prevents Angiotensin-II induced Cardiomyopathy, The Second Annual ACRE/APS Symposium: Hot Topics in Current Basic and Translational Research of CV disease scheduled for July 13-16, 2015 at the Hilton New Orleans Riverside hotel in New Orleans, Louisiana.

- 2016 Invited oral presentation: Elevating CXCR7 improves angiogenic function of EPCs via Akt/GSK-3 β /Fyn-mediated Nrf2 activation in diabetic limb ischemia. 7th CADA Annual Scientific Symposium June 9-10, 2016, Staybridge Suites New Orleans, French Quarter/Down Town, LA.
- 2016 Invited oral presentation: Uncoupling of the Mitogenic and Metabolic Functions of Fibroblast Growth Factor 1 and the application in type 2 diabetes. The 11th biennial 2016 CBIS meeting is held from Friday July 29th to Tuesday August 2nd in Chengdu, China.
- 2016 Invited oral presentation: Molecular Target for Medical Intervention of CVD in Diabetes. The 27th Great Wall International Cardiology Conference (GW-ICC) held in conjunction with the World Heart Failure Congress 2016 (WHFC 2016) and the 21st Annual Scientific Meeting of the International Society of Cardiovascular Pharmacotherapy (ISCP) on 13-16 October 2016 at Beijing, China.
- 2016 Invited oral presentation: Stromal Cell-derived Factor-1 Prevents from Diabetic Cardiomyopathy via CXCR7/AMPK-mediated Nrf2 Activation in Type 2 Diabetic Mice. The 27th Great Wall International Cardiology Conference (GW-ICC) held in conjunction with the World Heart Failure Congress 2016 (WHFC 2016) and the 21st Annual Scientific Meeting of the International Society of Cardiovascular Pharmacotherapy (ISCP) on 13-16 October 2016 at Beijing, China.
- 2016 Invited oral presentation: Molecular Target for Intervention of cardiovascular disease in Diabetes. Yuying Forum 2016, The Second Affiliated Hospital of Wenzhou Medical University, October 29, 2016, Wenzhou, China.
- 2017 Invited oral presentation: Chemokine Receptor CXCR4/CXCR7 and Endothelial Progenitor Cells (EPCs) Function in Diabetes. The the 12th Xiangya Diabetes Immunology Forum, April 21-23, 2017 in Changsha, Hunan, China.
- 2017 Invited oral presentation: Uncoupling of the Mitogenic and Metabolic Functions of FGF1 and the application in diabetes. The 4th Tongji Symposium on Metabolic Diseases 2017, at the Center for Biomedical Research, Tongji Hospital, Tongji Medical College, Huazhong University of Science & Technology in Wuhan, China from October 13 to 15, 2017.
- 2017 Invited oral presentation: Novel Molecular Targets for Intervention of Vascular Complications in Diabetes—Chemokine Receptors CXCR4 and CXCR7. The 8th Wuyi Hypertension Forum 2017, Fujian Hall, Xihu Hotel, October 20-21, 2017, Fuzhou, China.
- 2017 Invited oral presentation: Growth factors in diabetic cardiovascular complications—from basic to translational study. Taishan Academic Forum on Translational Cardiovascular Medicine and the First Yantai Cardiovascular Medicine International Forum, The Binzhou Medical University, Fulitai International Hotel, October 17-19, 2017, Yantai, China.
- 2017 Invited oral presentation: Fibroblast Growth Factors in diabetic cardiovascular complications—from basic to translational study. The 8th Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, Nov 4-6, 2017.
- 2017 Invited oral presentation: The Metabolic Functions of FGF1 and the application in diabetes. Yuying Forum 2017, The Second Affiliated Hospital of Wenzhou Medical University, November 3-4, 2017, Greece Hall, Olympic Hotel, Wenzhou, China.
- 2018 Invited oral presentation: The Novel Molecular Targets for Intervention of Diabetic vascular Complications—Chemokine Receptors CXCR4 and CXCR7. International Symposium of Cardiovascular Basic and Translational Medicine (CBTM), 2018 Annual Meeting of Chinese College of Cardiovascular Physicians & 2018 South China International Congress of Cardiology, April 5-8, 2018, Baiyun Convention Center, Guangzhou, China.
- 2018 Invited oral presentation: A novel fibroblast growth factor variant reverses NAFLD in type 2 diabetes. The 9th Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, Nov 19-20, 2018.
- 2018 Invited oral presentation: CXCR7 is a Novel Molecular Targets for Intervention of Diabetic Vascular Complications. The 14th Academic Conference of the Chinese Society of Pathophysiology Receptors and Signal

Transduction & 2018 Jiangnan Receptors and Health International Symposium, Jiangnan University, Wuxi, China, October 25-26, 2018.

- 2018 Invited oral presentation: CXCR7 is a Novel Molecular Targets for Intervention of Diabetic Cardiovascular Complications. Cardiovascular Young Scientists Summit Forum (Beijing), Beijing University, China, October 28-30, 2018.
- 2018 Invited oral presentation: Fibroblast growth factor-1 prevents diabetic complications in type 2 diabetes. Yuying Forum 2018, The Second Affiliated Hospital of Wenzhou Medical University, November 2-3, 2018, Dongtou Island, Wenzhou, China.
- 2019 Invited oral presentation: A Novel Molecular Target for Intervention of CVD in Diabetes—Nrf2. The 10th Forum of the Chinese-American Symposium of Diabetic Complications at the Ruian People's Hospital, Ruian, Zhejiang, China, May 11-12, 2019.
- 2019 Invited oral presentation: A Novel Molecular Target for Intervention of CVD in Diabetes—Nrf2. Henan Provincial Medical Association Cardiovascular Branch 2019 Annual Meeting, Zhengzhou, Henan, China, May 17-19, 2019.

Lectures

- 2013 Invited lecture: SDF-1 β P2G, a Novel CXCR4 Antagonist, Enhances EPC Mobilization and Ischemic Angiogenesis. Rui'an Renmin Hospital, April 19, 2013, Rui'an, Wenzhou, Zhejiang, China.
- 2013 Invited lecture: Angiotensin II/AT1 involvement in alcoholic cardiomyopathy. Rui'an Renmin Hospital, May 6, 2013, Rui'an, Wenzhou, Zhejiang, China.
- 2013 Invited lecture: SDF-1 β P2G, a Novel CXCR4 Antagonist, Enhances Endothelial Progenitor Cell Mobilization and Ischemic Angiogenesis. Department of Pharmacology and Toxicology, University of Louisville, Aug 29, 2013, Tower Building 1302, Louisville, KY.
- 2014 Invited lecture: A Novel CXCR4 Antagonist Enhances EPCs Mobilization and Ischemic Angiogenesis. Diabetes and Obesity Center, January 07, 2014, Baxter-1 Building 038 Room, University of Louisville, USA.
- 2015 Invited lecture: Uncoupling of the Mitogenic and Metabolic Functions of Fibroblast Growth Factor 1 and the application in type 2 diabetes. Sep 16, 2015 at the Kosair Children's Hospital Research Institute-WIP, Department of Pediatrics, University of Louisville.
- 2015 Invited lecture: Uncoupling of the Mitogenic and Metabolic Functions of Fibroblast Growth Factor 1 and the application in type 2 diabetes. Dec 14, 2015 at the Department of Pediatrics, University of Louisville.
- 2016 Invited lecture: Uncoupling of the Mitogenic and Metabolic Functions of Fibroblast Growth Factor 1 and the application in type 2 diabetes. April 20, 2016 at the Chongqing University of Science & Technology.
- 2016 Invited lecture: Uncoupling of the Mitogenic and Metabolic Functions of Fibroblast Growth Factor 1 and the application in type 2 diabetes. April 20, 2016 at the College of Biological Sciences, Southwest University, Chongqing, China.
- 2016 Invited lecture: A Novel Molecular Target for Intervention of CVD in Diabetes—SDF-1-CXCR4/CXCR7. Third Military Medical University Xinqiao Hospital, October 19, 2016, Chongqing, China.
- 2017 Invited lecture: CXCR7 and endothelial progenitor cell (EPC) function in diabetes. February 15, 2017 at the Pediatric Research Institute-WIP, Department of Pediatrics, University of Louisville.
- 2017 Invited lecture: Chemokine receptors CXCR4/CXCR7 and endothelial progenitor cell function in diabetes. March 13, 2017 at the Department of OB/GYN & Reproductive Sciences at the University of Maryland.
- 2017 Invited lecture: SDF-1-CXCR4/CXCR7—A Novel Molecular Target for Intervention of Diabetes Vascular Diseases. Chengdu Medical University, April 17, 2017, Chengdu, China.
- 2017 Invited lecture: CXCR7 is a novel target for improving endothelial progenitor cells (EPCs) function in Diabetes. December 11, 2017 at the Department of Pediatrics, University of Louisville.

- 2018 Invited lecture: The Metabolic Functions of FGF1. March 12, 2018 at the Med School 229B, Medical School Building, Department of Pharmacology, Long School of Medicine, University of Texas at San Antonio.
- 2019 Invited lecture: FGF1 in Diabetes and Diabetic Complications, University of Louisville Chinese Faculty Club, December 20, 5:30-8:30 pm in the Hibachi Sushi Buffet.
- 2020 Invited lecture: How does Nrf2 regulate endothelial progenitor cell (EPC) function in diabetes? February 19, 2020 at the Pediatric Research Institute-WIP, Department of Pediatrics, University of Louisville.
- 2021 Invited lecture: Endocrinized FGF1 prevents metabolic syndrome and complications. July 22, 2021 at the Pharmacology & Toxicology Departmental Seminar, Department of Pharmacology & Toxicology, University of Louisville.
- 2021 Invited lecture: CXCR7 and Nrf2 are Novel Molecular Targets for Intervention of Diabetic Vascular Complications. August 15, 2021 at the Harbin Medical University Summer Training Course for Graduate Students in Pharmacy, China (Virtual).

PUBLICATIONS (List in chronological order and number)

PEER-REVIEWED ORIGINAL RESEARCH MANUSCRIPTS

, † indicating Tan Y as corresponding () or equal contribution (†) author

2004

1. Shaohui Cai, **Yi Tan**, Xianda Ren, Xiaohui Li, Jun Du. Loss of C-terminal alpha-helix decreased SDF-1alpha-mediated signaling and chemotaxis without influencing CXCR4 internalization. *Acta Pharmacol Sin.* 2004; 25(2):152-160.

2006

2. **Yi Tan**, Jun Du, Shaoxi Cai, Xiaokun Li, Weifeng Ma, Zhigang Guo, Hongyuan Chen, Zhifeng Huang, Jian Xiao, Lu Cai and Shaohui Cai. Cloning and characterizing mutated human stromal cell-derived factor-1 (SDF-1): C-terminal alpha-helix of SDF-1alpha plays a critical role in CXCR4 activation and signaling, but not in CXCR4 binding affinity. *Exp Hematol.* 2006; 34(11):1553-1562.

2007

3. Xiao-Kun Li, Zhuo-Feng Lin, Yan Li, Shifeng Hu, **Yi Tan**, Zhifeng Huang, Juan Meng, Li-Ming Liang, Jian Xiao, Jia Qu, Lu Cai. Cardiovascular protection of nonmitogenic human acidic fibroblast growth factor from oxidative damage in vitro and in vivo. *Cardiovasc Pathol.* 2007; 16 (2):85-91.
4. Zhifeng Huang, Qing Zheng, Xiaoping Wu, Zhijian Su, Hua Xu, **Yi Tan**, Wenke Feng, Xiaokun Li, Lu Cai. Enhanced protection of modified human acidic fibroblast growth factor with polyethylene glycol against ischemia/reperfusion-induced retinal damage in rats. *Toxicol Lett.* 2007;170 (2):146-56.
5. Zhigang Guo, Shaoxi Cai, Rui Fang, Hongyuan Chen, Jun Du, **Yi Tan**, Weifeng Ma, Houwen Hu, Shaohui Cai, Yiyao Liu. The synergistic effects of CXCR4 and EGFR on promoting EGF-mediated metastasis in ovarian cancer cells. *Colloids Surf B Biointerfaces.* 2007; 60 (1):1-6.

2008

6. **Yi Tan**, Jian Xiao, Zhifeng Huang, Yechen Xiao, Shaoqiang Lin, Litai Jin, Wenke Feng, Lu Cai, Xiaokun Li. Comparison of the therapeutic effects recombinant human acidic and basic fibroblast growth factors in wound healing in diabetic patients. *Journal of Health Science.* 2008; 54(4): 432-440.
7. Wei Wang, Shaoqiang Lin, Yechen Xiao, Yadong Huang, **Yi Tan**, Lu Cai, Xiaokun Li. Acceleration of diabetic wound healing with chitosan-crosslinked collagen sponge containing recombinant human acidic fibroblast growth factor in healing-impaired STZ diabetic rats. *Life Sci.* 2008; 82:190-204.

8. Xiang Xu, Jinyu Wu, Jian Xiao, **Yi Tan**, Qiyu Bao, Fangqing Zhao and Xiaokun Li. PlasmoGF: an integrated system for comparative genomics and phylogenetic analysis of Plasmodium gene families. *Bioinformatics*. 2008; 24(9):1217-1220.
9. Weifeng Ma, Shaoxi Cai, Jun Du, **Yi Tan**, Hongyuan Chen, Zhigang Guo, Houwen Hu, Rui Fang and Shaohui Cai. SDF-1/54-DCN: a novel recombinant chimera with dual inhibitory effects on proliferation and chemotaxis of tumor cells. *Biol Pharm Bull*. 2008; 31(6):1086-91.

2009

10. Shaoqiang Lin, Henwu Xu, Jian Xiao, Yanlong Liu, Yi Zhang, Lu Cai, Xiaokun Li, **Yi Tan**. Combined Use of aFGF/G-CSF/Zn Accelerated Diabetic Ulcer Healing. *Journal of Health Science*. 2009; 55(6):910-922.
11. Weifeng Ma, Hongyuan Chen, Jun Du, Shaoxi Cai, **Yi Tan**, Shao-hui Cai. A novel recombinant protein TAT-GFP-KDEL with dual-function of penetrating cell membrane and locating at endoplasmic reticulum. *J Drug Target*. 2009; 17(4):329-333.
12. Xiaoping Wu, Changjun Nie, Zhifeng Huang, Yanfang Nie, Qiuxia Yan, Yecheng Xiao, Zhijian Su, Yadong Huang, Jian Xiao, Yaoying Zeng, **Yi Tan**, Wenke Feng, Xiaokun Li. Expression and purification of human keratinocyte growth factor 2 by fusion with SUMO. *Mol Biotechnol*. 2009; 42(1):68-74.
13. Yadong Huang, Zhijian Su, Yanmei Li, Qihao Zhang, Lejia Cui, Ye Su, Changcai Ding, Minjing Zhang, Chengli Feng, **Yi Tan**, Wenke Feng, Xiaokun Li and Lu Cai. Expression and Purification of glutathione transferase-small ubiquitin-related modifier-metallothionein fusion protein and its neuronal and hepatic protection against D-galactose-induced oxidative damage in mouse model. *J Pharmacol Exp Ther*. 2009; 329(2):469-78.
14. **Yi Tan**[†], Yan Li[†], Jian Xiao, Hongwei Shao, Chuanlin Ding, Gavin E. Arteel, Keith A. Webster, Jun Yan, Hong Yu, Lu Cai and Xiaokun Li. A novel CXCR4 antagonist derived from human SDF-1beta enhances angiogenesis in ischaemic mice. *Cardiovascular Research*. 2009; 82(3):513-21.
15. Yuehui Wang, Wenke Feng, Wanli Xue, **Yi Tan**, David W. Hein, Xiao-Kun Li and Lu Cai. Inactivation of GSK-3beta by metallothionein prevents diabetes-related changes in cardiac energy metabolism, inflammation, nitrosative damage, and remodeling. *Diabetes*. 2009; 58(6):1391-402.
16. Jiancheng Xu, Guanjun Wang, Yuehui Wang, Qiuju Liu, Wei Xu, **Yi Tan**, Lu Cai. Diabetes- and angiotensin II-induced cardiac endoplasmic reticulum stress and cell death: Metallothionein protection. *J Cell Mol Med*. 2009; 13(8A):1499-512.
17. Zhifeng Huang, Chunyan Ni, Xiangtian Zhou, Yanlong Liu, **Yi Tan**, Jian Xiao, Wenke Feng, Xiaokun Li, Shulin Yang. Mechanism of pH-sensitive polymer-assisted protein refolding and its application in TGF-beta1 and KGF-2. *Biotechnol Prog*. 2009; 25:1387-1395.
18. Chi Zhang, **Yi Tan**, Weiyang Guo, Cai Li, Shunzi Jin, Xiaokun Li, and Lu Cai. Attenuation of diabetes-induced renal dysfunction by exposure to low-dose radiation is associated with the suppression of systemic and renal inflammation. *Am J Physiol Endocrinol Metab*. 2009; 297(6):E1366-77.
19. Qiuju Liu, Guanjun Wang, Guihua Zhou, **Yi Tan**, Xiuli Wang, Wei Wei, Lucheng Liu, Wanli Xue, Wenke Feng, Lu Cai. Angiotensin II induced p53-dependent cardiac apoptotic cell death: its prevention by metallothionein. *Toxicol Lett*. 2009; 191(2-3):314-20.
20. Wei Wei, Qiuju Liu, **Yi Tan**, Lucheng Liu, Xiaokun Li, Lu Cai. Oxidative stress, diabetes, and diabetic complications. *Hemoglobin*. 2009; 33(5):370-377.
21. Qiuju Liu, Liang Sun, **Yi Tan**, Guanjun Wang, Xu Lin, Lu Cai. Role of iron deficiency and overload in the pathogenesis of diabetes and diabetic complications. *Curr Med Chem*. 2009; 16(1):113-29.

2010

22. Madhavi J. Rane, Ye Song, Shunying Jin, Michelle T. Barati, Rui Wu, Hina Kausar, **Yi Tan**, Yuehui Wang, Guihua Zhou, Jon B. Klein, Xiaokun Li, and Lu Cai. Interplay between Akt and p38 MAPK pathways in the

regulation of renal tubular cell apoptosis associated with diabetic nephropathy. *Am J Physiol Renal Physiol*. 2010; 298(1):F49-61.

23. Jian Xiao, **Yi Tan**, Yunbao Pan, Guang Liang, Changju Qu, Xie Zhang, Yi Zhang, Xiaokun Li, Huiling Yang. A New COX-2 Inhibitor, 1E,4E)-1,5-bis (2-Bromophenyl)penta-1,4-Dien-3-One (GL63) Suppresses Cyclooxygenase-2 Gene Expression in Human Lung Epithelial Cancer Cells: Coupled mRNA Stabilization and Posttranscriptional Inhibition. *Biol Pharm Bull*. 2010; 33(7): 1170-1175.
24. Jian Xiao, Yanxia Lv, Shaoqiang Lin, Litai Jin, Yi Zhang, Xiaojie Wang, Jisheng Ma, Wenke Feng, Lu Cai, Xiaokun Li and **Yi Tan***. Cardiac Protection by basic FGF from Ischemia/Reperfusion-Induced Injury in Diabetic Rats. *Biol Pharm Bull*. 2010; 33(3) 444-449. (*: Correspondent author).
25. Chi Zhang, Zhijian Su, Binghai Zhao, Qing Qu, **Yi Tan**, Lu Cai and Xiaokun Li. Tat-modified Leptin is more Accessible to Hypothalamus through Brain-blood Barrier with a Significant Inhibition of Body-weight Gain in High-fat-diet Fed Mice. *Exp Clin Endocrinol Diabet*. 2010; 118(1):31-37.
26. Yunan Tang, Qin Yang, Jiayin Lu, Xiaolin Zhang, Di Suen, **Yi Tan**, Litai Jin, Jian Xiao, Rujia Xie, Madhavi Rane, Xiaokun Li, Lu Cai. Zinc supplementation partially prevents renal pathological changes in diabetic rats. *J Nutr Biochem*. 2010; 21:237–246.
27. Jian Xiao, Qi Xiang, Ye-Chen Xiao, Zhi-Jian Su, Zhi-Feng Huang, Qi-Hao Zhang, **Yi Tan**, Xiao-Kun Li and Ya-Dong Huang. The effect of transforming growth factor- β 1 on nasopharyngeal carcinoma cells: insensitive to cell growth but functional to TGF- β /Smad pathway. *J Exp Clin Cancer Res*. 2010; 29(1):35.
28. Wanli Xue, Lu Cai, **Yi Tan**, Patricia Thistlethwaite, Y. James Kang, Xiaokun Li, Wenke Feng. Cardiac-specific over-expression of HIF-1 α prevents deterioration of glycolytic pathway and cardiac remodeling in streptozotocin-induced diabetic mice. *Am J Pathol*. 2010; 177: 97-105.
29. Weiyang Guo, Guanjun Wang, Ping Wang, Qiang Chen, **Yi Tan**, Lu Cai. Acceleration of Diabetic Wound Healing by Low-Dose Radiation is Associated with Peripheral Mobilization of Bone Marrow Stem Cells. *Radiat Res*. 2010; 174, 467–479.

2011

30. Zhifeng Huang, Huiyan Wang, Meifei Lu, Chuanchuan Sun, Xiaoping Wu, **Yi Tan**, Chaohui Ye, Guanghui Zhu, Xiaojie Wang, Lu Cai, Xiaokun Li. A better anti-diabetic recombinant human fibroblast growth factor 21 (rhFGF21) modified by polyethylene glycol. *PLoS ONE*. 2011; 6(6): e20669.
31. Yuguang Zhao, **Yi Tan**, Bing Li, Jiuwei Cui, Guanjun Wang, Xiang Zhang, Wei Li, Lu Cai. Exacerbation of diabetes-induced testicular apoptosis by zinc deficiency is associated with activation of oxidative stress-mediated p38 and p53 signaling pathways. *Toxicol Lett*. 2011; 200(1-2):100-106.
32. **Yi Tan**[†], Tomonaga Ichikawa[†], Jinqing Li, Qiusheng Si, Huaitao Yang, Xiangbai Chen, Curtis S. Goldblatt, Colin J. Meyer, Lu Cai, Taixing Cui. Diabetic downregulation of Nrf2 activity via ERK contributes to oxidative stress-induced insulin resistance in cardiac cells *in vitro* and *in vivo*. *Diabetes*. 2011; 60:625-633.
33. Xiaozhen Dai, **Yi Tan***, Shaoxi Cai, Xin Xiong, Lingqiao Wang, Qunfang Ye, Xiaoqing Yan, Kaiwang Ma, Lu Cai. The Role of CXCR7 on the Adhesion, Proliferation and Angiogenesis of Endothelial Progenitor Cells. *J Cell Mol Med*. 2011; 15(6):1299-1309. (*: Correspondent author)
34. Junling Yang[†], **Yi Tan**[†], Fenglian Zhao, Zhongsen Ma, Lining Miao, Shirong Zheng, Paul N. Epstein, Jerry Yu, Xiaokun Li, Lu Cai. Angiotensin II plays a critical role in diabetic lung fibrosis via activation of NADPH oxidase-mediated nitrosative damage. *Am J Physiol Endocrinol Metab*. 2011; 301: E132–E144. (†: Co-first author).
35. Dai XiaoZhen, Cai Shaoxi, Ye Qunfang, Jiang Jiahuan, Yan Xiaoqing, Xiong Xin, Jiang Qifeng, Wang Albert Chih-Lueh, **Tan Yi**. A novel in vitro angiogenesis model based on a microfluidic device. *Chin Sci Bull*. 2011; 56(31): 3301-3309.

2012

36. Weixia Sun, Xia Yin, Yuehui Wang, **Yi Tan**, Bo Wang, Jun Cai, Yaowen Fu. Intermittent hypoxia-induced renal antioxidants and oxidative damage in male mice: hormetic dose response. *Dose-Response*. 2012; 11(3):385-400.
37. Bo Wang, Yang Li, **Yi Tan**, Xiao Miao, Xudong Liu, Chen Shao, Xiaohui Yang, Subat Turdi, Lijie Ma, Jun Ren, Lu Cai. Low-dose Cd induces liver gene hypermethylation, along with the persistent decrease of cell death and increase of cell proliferation in rats and mice. *PLoS ONE*; 2012; 7(3):e33853.
38. Chi Zhang, Xuemian Lu, **Yi Tan**, Bing Li, Xiao Miao, Litai Jin, Xue Shi, Xiang Zhang, Lining Miao, Xiaokun Li, Lu Cai. Diabetes-Induced Hepatic Pathogenic Damage, Inflammation, Oxidative Stress, and Insulin Resistance Was Exacerbated in Zinc Deficient Mouse Model. *PLoS ONE*; 7(12): e49257.
39. Wenpeng Cui, Yang Bai, Xiao Miao, Ping Luo, Qiang Chen, **Yi Tan**, Madhavi J. Rane, Lining Miao and Lu Cai. Prevention of Diabetic Nephropathy by Sulforaphane: Possible Role of Nrf2 Upregulation and Activation. *Oxidative Med Cell Longev*. 2012; 2012: 821936.
40. **Yi Tan**, Xiaokun Li, Sumanth D. Prabhu, Kenneth R Brittan, Qiang Chen, Xia Yin, Craig J. McClain, Zhanxiang Zhou, Lu Cai. Angiotensin II Plays a Critical Role in Alcohol-Induced Cardiac Nitrate Damage, Cell Death, Remodeling, and Cardiomyopathy in a PKC/NADPH Oxidase-Dependent Manner. *J Am Coll Cardiol (JACC)*. 2012; 59:1477–1486.
41. Yuguang Zhao, **Yi Tan**, Junying Dai, Bo Wang, Bing Li, Luping Guo, Jiuwei Cui, Guanjun Wang, Wei Li, Lu Cai. Zinc deficiency exacerbates diabetic down-regulation of Akt expression and function in the testis: essential roles of PTEN, PTP1B and TRB3. *J Nutr Biochem*. 23 (2012) 1018–1026.
42. Xiao Miao, Yang Bai, Weixia Sun, Wenpeng Cui, Ying Xin, Yuehui Wang, **Yi Tan**, Lining Miao, Yaowen Fu, Guanfang Su and Lu Cai. Sulforaphane prevention of diabetes-induced aortic damage was associated with the up-regulation of Nrf2 and its down-stream antioxidants. *Nutr Metab*. 2012; 9:84.
43. Yang Bai†, **Yi Tan**†, Bo Wang, Xiao Miao, Qiang Chen, Yang Zheng, Lu Cai. Deletion of angiotensin II type 1 receptor gene or scavenging superoxide prevents chronic alcohol-induced aortic damage and remodeling. *J Cell Mol Med*. 2012; 16: 2530-2538. (†: Co-first author).
44. Bo Wang, Yang Li, Chen. Shao, **Yi Tan**, Lu Cai. Cadmium and Its Epigenetic Effects. *Curr Med Chem*. 2012; 19(16):2611-20.

2013

45. Wenpeng Cui, Yang Bai, Bing Li, Xiao Miao, Qiang Chen, Weixia Sun, **Yi Tan**, Ping Luo, Chi Zhang, Shirong Zheng, Paul N Epstein, Lining Miao, Lu Cai. Potential role for Nrf2 activation in the therapeutic effect of MG132 on diabetic nephropathy in OVE26 diabetic mice. *Am J Physiol Endocrinol Metab*. 2013; 304: E87–E99.
46. Xiao Miao, Huayi Lv, Bo Wang, Qiang Chen, Lining Miao, Guanfang Su*, **Yi Tan***. Deletion of angiotensin II type 1 receptor gene attenuates chronic alcohol-induced retinal ganglion cell death with preservation of VEGF expression. *Curr Eye Res*. 2013; 38(1): 185-193. (*: Correspondent author).
47. Bing Li, **Yi Tan**, Weixia Sun, Yaowen Fu, Lining Miao, Lu Cai. The role of zinc in the prevention of diabetic cardiomyopathy and nephropathy. *Toxicol Mech Methods*. 2013; 23(1): 27–33.
48. Wenpeng Cui, Yangwei Wang, Qiang Chen, Weixia Sun, Lu Cai, **Yi Tan***, Ki-Soo Kim, Ki Ho Kim, and Young Heui Kim*. Magnolia Extract (BL153) Ameliorates Kidney Damage in a High Fat Diet-Induced Obesity Mouse Model. *Oxidative Med Cell Longev*. Volume 2013; 2013:367040. (*: Correspondent author).
49. Chi Zhang, Minglong Shao, Hong Yang, Liangmiao Chen, Lechu Yu, Weitao Cong, Haishan Tian, Fangfang Zhang, Peng Cheng, Litai Jin, **Yi Tan**, Xiaokun Li, Lu Cai, Xuemian Lu. Attenuation of Hyperlipidemia- and Diabetes-Induced Early-Stage Apoptosis and Late-Stage Renal Dysfunction via Administration of Fibroblast Growth Factor-21 Is Associated with Suppression of Renal Inflammation. *PLoS ONE*; 2013, 8(12): e82275.
50. Chi Zhang, Linbo Zhang, Shali Chen, Biao Feng, Xuemian Lu, Yang Bai, Guang Liang, **Yi Tan**, Minglong Shao,

Melissa Skibba, Litai Jin, Xiaokun Li, Subrata Chakrabarti, Lu Cai. The Prevention of Diabetic Cardiomyopathy by Non-Mitogenic Acidic Fibroblast Growth Factor Is Probably Mediated by the Suppression of Oxidative Stress and Damage. *PLoS ONE*; 2013, 8(12): e82287.

51. Jiancheng Xu, Qi Zhou, Gilbert Liu, **Yi Tan***, Lu Cai. Analysis of Serum and Urinal Copper and Zinc in Chinese Northeast Population with the Pre-diabetes or Diabetes with and without Complications. *Oxidative Medicine and Cellular Longevity*. 2013; 2013:635214. (*: Correspondent author).
52. Xiao Miao, Wenpeng Cui, Weixia Sun, Ying Xin, Bo Wang, **Yi Tan**, Lu Cai, Lining Miao, Yaowen Fu, Guanfang Su, and Yuehui Wang. Therapeutic Effect of MG132 on the Aortic Oxidative Damage and Inflammatory Response in OVE26 Type 1 Diabetic Mice. *Oxidative Med Cell Longev*. 2013; 2013:879516.
53. Yuehui Wang, Weixia Sun, Bing Du, Xiao Miao, Yang Bai, Ying Xin, **Yi Tan**, Wenpeng Cui, Bin Liu, Taixing Cui, Paul N. Epstein, Yaowen Fu, and Lu Cai. Therapeutic effect of MG-132 on diabetic cardiomyopathy is associated with its suppression of proteasomal activities: roles of Nrf2 and NF- κ B. *Am J Physiol Heart Circ Physiol*. 2013; 304: H567–H578.
54. Xiao Miao, Yonggang Wang, Jian Sun, Weixia Sun, **Yi Tan**, Lu Cai, Yang Zheng, Guanfang Su, Quan Liu and Yuehui Wang. Zinc protects against diabetes-induced pathogenic changes in the aorta: roles of metallothionein and nuclear factor (erythroid-derived 2)-like 2. *Cardiovasc Diabetol*. 2013, 12:54.
55. Yang Bai, Wenpeng Cui, Xiao Miao, Qiang Chen, **Yi Tan**, Yang Zheng and Lu Cai. Prevention by sulforaphane of diabetic cardiomyopathy is mediated by up-regulation of Nrf2 expression and transcription activation. *J Mol Cell Cardiol*. 2013; 57 (2013): 82–95.
56. Weitao Cong, Weide Ma, Ting Zhao, Zhongxin Zhu, Yuehui Wang, **Yi Tan**, Xiaokun Li, Litai Jin, Lu Cai. Metallothionein prevents diabetic cardiomyopathy likely via inhibition of SCOT nitration at Trp374. *Am J Physiol Endocrinol Metab*. 2013; 304(8):E826-35.
57. Xin Jiang, Chi Zhang, Ying Xin, Zhifeng Huang, **Yi Tan**, Yadong Huang, Yonggang Wang, Wenke Feng, Xiaokun Li, Wei Li, Yaqin Qu, Lu Cai. Protective effect of FGF21 on type 1 diabetes-induced testicular apoptotic cell death probably via both mitochondrial- and endoplasmic reticulum stress-dependent pathways in the mouse model. *Toxicol Lett*. 2013; 219 (1): 65-76.
58. Yuguang Zhao†, **Yi Tan†**, Shugang Xi, Jiuwei Cui, Xiaoqing Yan, Xiaokun Li, Guanjun Wang, Wei Li, Lu Cai. A novel mechanism by which SDF-1 β protects cardiac cells from palmitate-induced ER stress and apoptosis via CXCR7 and AMPK/p38 MAPK-mediated IL-6 generation. *Diabetes*. 2013; 62(7):2545-58. (†: Co-first author).
59. Xiao Miao, Guanfang Su, Yonggang Wang, Weixia Sun, Wei Wei, Wei Li, Lining Miao, Lu Cai, **Yi Tan***, Qiuju Liu*. Metallothionein prevention of arsenic-induced cardiac cell death is associated with its inhibition of mitogen-activated protein kinases activation in vitro and in vivo. *Toxicol Lett*. 2013; 220(3): 277–285. (*: Correspondent author).
60. Turdi S, Sun W, **Tan Y**, Yang X, Cai L, Ren J. Inhibition of DNA Methylation Attenuates Low-Dose Cadmium-Induced Cardiac Contractile and Intracellular Ca(2+) Anomalies. *Clin Exp Pharmacol Physiol*. 2013; 40(10):706-12.
61. Xin Jiang, Melissa Skibba, Chi Zhang, **Yi Tan**, Ying Xin and Yaqin Qu. The roles of fibroblast growth factors in the testicular development and tumor. *Journal of Diabetes Research*. *J Diabetes Res*. 2013; 2013:489095.

2014

62. Zhou S, Wang Y, **Tan Y**, Cai X, Cai L, Cai J, Zheng Y. Deletion of metallothionein exacerbates intermittent hypoxia-induced oxidative and inflammatory injury in aorta. *Oxidative Med Cell Longev*. 2014; 2014:141053.
63. Zhiguo Zhang, Jing Chen, Xin Jiang, Jian Wang, Xiaoqing Yan, Yang Zheng, Daniel J. Conklin, Ki-Soo Kim, Ki Ho Kim, **Yi Tan**, Young Heui Kim, and Lu Cai. The Magnolia Bioactive Constituent 4-O-Methylhonokiol Protects against High-Fat Diet-Induced Obesity and Systemic Insulin Resistance in Mice. *Oxidative Med Cell Longev*. 2014; 2014:965954.

64. Jian Wang, Chi Zhang, Zhiguo Zhang, Qiang Chen, Xuemian Lu, Minglong Shao, Liangmiao Chen, Hong Yang, Fangfang Zhang, Peng Cheng, **Yi Tan**, Ki-Soo Kim, Ki Ho Kim, Bochu Wang, Young Heui Kim. BL153 partially prevents high-fat diet induced liver damage probably via inhibition of lipid accumulation, inflammation, oxidative stress. *Oxidative Med Cell Longev*. 2014; 2014:674690.
65. Yonggang Wang Zhiguo Zhang, Wanqing Sun, **Yi Tan**, Yucheng Liu, Yang Zheng, Quan Liu, Lu Cai and Jian Sun. Sulforaphane attenuation of type 2 diabetes-induced aortic damage was associated with the up-regulation of Nrf2 expression and function. *Oxidative Med Cell Longev*. 2014; 2014:123963.
66. Sun Weixia, Zhang Zhiguo, Chen Qiang, Yin Xia, Fu Yaowen, Zheng Yang, Cai Lu, Ki-Soo Kim, Ki Ho Kim, **Tan Yi***, and Young Heui Kim*. Magnolia extract (BL153) protection of heart from lipid accumulation caused cardiac oxidative damage, inflammation and cell death in high-fat diet fed mice. *Oxidative Med Cell Longev*. 2014; 2014:205849.
67. Minglong Shao, Xuemian Lu, Weitao Cong, Xiao Xing, **Yi Tan**, Yunqian Li, Xiaokun Li, Litai Jin, Xiaojie Wang, Juancong Dong, Shunzi Jin, Chi Zhang, Lu Cai. Multiple Low-Dose Radiation Prevents Type 2 Diabetes-Induced Renal Damage through Attenuation of Dyslipidemia and Insulin Resistance and Subsequent Renal Inflammation and Oxidative Stress. *PLoS ONE*. 2014; 9(3):e92574.
68. Weitao Cong, Ting Zhao, Zhongxin Zhu, Binbin Huang, Weide Ma, Yuehui Wang, **Yi Tan**, Subrata Chakrabarti, Xiaokun Li, Litai Jin, Lu Cai. Metallothionein prevents cardiac pathological changes in diabetes by modulating nitration and inactivation of cardiac ATP synthase. *J Nutr Biochem*. 2014; 25(4): 463-474.
69. Bing Li, Wenpeng Cui, **Yi Tan**, Ping Luo, Qiang Chen, Chi Zhang, Wei Qu, Lining Miao and Lu Cai. Zinc is essential for the transcription function of Nrf2 in human renal tubule cells in vitro and mouse kidney in vivo under the diabetic condition. *J Cell Mol Med*. 2014; 18(5): 895-906.
70. Xia Yin, Shanshan Zhou, Yang Zheng, **Yi Tan**, Maiying Kong, Bo Wang, Wenke Feng, Paul N. Epstein, Jun Cai, Lu Cai. Metallothionein as a compensatory component prevents intermittent hypoxia-induced cardiomyopathy in mice. *Toxicol Appl Pharmacol*. 2014; 277 (2014) 58–66.
71. Yucheng Liu, Yonggang Wang, Xiao Miao, Shanshan Zhou, **Yi Tan**, Guang Liang, Yang Zheng, Quan Liu, Jian Sun and Lu Cai. Inhibition of JNK by compound C66 prevents pathological changes of the aorta in STZ-induced diabetes. *J Cell Mol Med*. 2014; 18(6):1203-1212.
72. Yonggang Wang, Shanshan Zhou, Wanqing Sun, Kristen McClung, Yong Pan, Quang Liang, **Yi Tan**, Yunjie Zhao, Quan Liu, Jian Sun, and Lu Cai. Inhibition of JNK by novel curcumin analog C66 prevents diabetic cardiomyopathy with a preservation of cardiac metallothionein expression. *Am J Physiol Endocrinol Metab*. 2014; 306: E1239 –E1247.
73. Zhang Zhiguo, Wang Shudong, Zhou Shanshan, Yan Xiaoqing, Wang Yonggang, Chen Jing, Mellen Nicholas, Kong Maiying, Gu Junlian, **Tan Yi**, Zheng Yang, Cai Lu*. Sulforaphane prevents the development of cardiomyopathy in type 2 diabetic mice probably by reversing oxidative stress-induced inhibition of LKB1/AMPK pathway. *J Mol Cell Cardiol*. 2014; 77: 42–52.
74. Hao Wu, Lili Kong, Shanshan Zhou, Wenpeng Cui, Feng Xu, Manyu Luo, Xiangqi Li, **Yi Tan***, and Lining Miao*. The Role of MicroRNAs in Diabetic Nephropathy. *J Diabetes Res*. 2014; 2014:920134.

2015

75. Zhiguo Zhang, Jing Chen, Shanshan Zhou, Shudong Wang, Xiaohong Cai, Daniel J. Conklin, Ki-Soo Kim, Ki Ho Kim, **Yi Tan**, Yang Zheng, Young Heui Kim, and Lu Cai. Magnolia bioactive constituent 4-O-methylhonokiol prevents the impairment of cardiac insulin signaling and the cardiac pathogenesis in high-fat diet-induced obese mice. *Int J Biol Sci*. 2015; 11(8): 879–891.
76. Hao Wu, Shanshan Zhou, Lili Kong, Jing Chen, Wenke Feng, Jun Cai, Lining Miao* and **Yi Tan***. Metallothionein deletion exacerbates intermittent hypoxia-induced renal injury in mice. *Toxicol Lett*. 2015; 232(2): 340-348.

77. Jiang Xin, Chen Jun, Zhang Chi, Zhang Zhiguo, **Tan Yi**, Feng Wenke, Skibba Melisa, Xin Ying, Cai Lu*. The protective effect of FGF21 on diabetes-induced male germ cell apoptosis is associated with up-regulated testicular AKT and AMPK/Sirt1/PGC-1 α signaling. *Endocrinology*. 2015; 156(3):1156-70.
78. Liang Tingting, Zhang Quan, Sun Weixia, Xin Ying, Zhang Zhiguo, **Tan Yi**, Zhou Shanshan, Zhang Chi, Cai Lu, Lu Xuemian, Cheng Mingliang. Zinc treatment prevents type 1 diabetes-induced hepatic oxidative damage, endoplasmic reticulum stress, and cell death, and even prevents possible steatohepatitis in the OVE26 mouse model: Important role of metallothionein. *Toxicol Lett*. 2015; 233(2):114-24.
79. Xiaoqing Yan, Jun Chen, Chi Zhang, Jun Zeng, Shanshan Zhou, Zhiguo Zhang, Jing Chen, Wenke Feng, Xiaokun Li, **Yi Tan***. Fibroblast growth factor 21 deletion aggravates diabetes-induced pathogenic changes in the aorta in type 1 diabetic mice. *Cardiovasc Diabetol*. 2015, 14:77.
80. Minglong Shao, Lechu Yu, Fangfang Zhang, Xuemian Lu, Xiaokun Li, Peng Cheng, Xiufei Lin, Luqing He, Shunzi Jin, **Yi Tan**, Hong Yang, Chi Zhang, Cai Lu. Additive protection by LDR and FGF21 treatment against diabetic nephropathy in type 2 diabetes model. *Am J Physiol Endocrinol Metab*. 2015; 309(1):E45-54.
81. Xiaoqing Yan, Jun Chen, Chi Zhang, Shanshan Zhou, Zhiguo Zhang, Jing Chen, Wenke Feng, Xiaokun Li, **Yi Tan***. FGF21 deletion exacerbates diabetic cardiomyopathy by aggravating cardiac lipid accumulation. *J Cell Mol Med*. 2015; 19(7): 1557-1568.
82. Chi Zhang, Zhifeng Huang, Junlian Gu, Xiaoqing Yan, Xuemian Lu, Shanshan Zhou, Shudong Wang, Minglong Shao, Fangfang Zhang, Peng Cheng, Wenke Feng, **Yi Tan***, Xiaokun Li*. Fibroblast growth factor 21 protects the heart from apoptosis in diabetic mice via extracellular signal-regulated kinases1/2-dependent signaling pathway. *Diabetologia*. 2015, 58(8):1937-48.
83. Weitao Cong, Dandan Ruan, Yuanhu Xuan, Chao Niu, Youli Tao, Yang Wang, Kungao Zhan, Lu Cai, Litai Jin*, **Yi Tan***. Cardiac-specific overexpression of catalase prevents diabetes-induced pathological changes by inhibiting NF- κ B signaling activation in the heart. *J Mol Cell Cardiol*. 2015; 89: 314–325.
84. Hao Wu, Lili Kong, Yanli Cheng, Zhiguo Zhang, Yangwei Wang, Manyu Luo, **Yi Tan**, Xiangmei Chen, Lining Miao, Lu Cai. Metallothionein plays a prominent role in the prevention of diabetic nephropathy by sulforaphane via up-regulation of Nrf2. *Free Radic Biol Med*. 2015; 89:431-442.
85. Kong Lili, Wu Hao, Zhou Wenhua, Luo Manyu, **Tan Yi**, Miao Lining, Cai Lu. Sirtuin 1: A Target for Kidney diseases. *Mol Med*. 2015; 21(1):87-97.
86. **Yi Tan**, Lianyong Liu, Mangan Liao, Chaobao Zhang, Shuanggang Hu, Mei Zou Mingjun Gu, Xiangqi Li. Emerging roles for PIWI proteins in cancer. *Acta Biochim Biophys Sin (Shanghai)*. 2015; 47(5):315-24.
87. Fangfang Zhang, Lechu Yu, Xiufei Lin, Peng Cheng, Luqing He, Xiaokun Li, Xuemian Lu, **Yi Tan**, Hong Yang, Lu Cai, and Chi Zhang. Minireview: Roles of Fibroblast Growth Factors 19 and 21 in Metabolic Regulation and Chronic Diseases. *Mol Endocrinol*. 2015; 29: 1400 –1413.

2016

88. Jianxiang Xu, Shirong Zheng, Patricia M. Kralik, Laxminarayanan Krishnan, Hui Huang, James B. Hoying, Lu Cai, Edward C. Carlson, **Yi Tan**, Paul N. Epstein. Diabetes Induced Changes in Podocyte Morphology and Gene Expression Evaluated Using GFP Transgenic Podocytes. *Int J Biol Sci*, 2016; 12(2):210-218.
89. Xingkai Liu, Ping Zhang, Robert C Martin, Guozhen Cui, Guangyi Wang, **Yi Tan**, Lu Cai, Guoyue Lv, and Yan Li. Lack of fibroblast growth factor 21 accelerates metabolic liver injury characterized by steatohepatitis in mice. *Am J Cancer Res*. 2016; 6(5):1011-25.

90. Ying Xin, Xin Jiang, Yishu Wang, Xuejin Su, Meiyu Sun, Lihong Zhang, **Yi Tan**, Kupper A. Wintergerst, Yan Li, Yulin Li. Insulin-Producing Cells Differentiated from Human Bone Marrow Mesenchymal Stem Cells in vitro Ameliorate Streptozotocin-Induced Diabetic Hyperglycemia. *PLoS ONE*, 2016, 11(1): e0145838.
91. Yanli Cheng, Jingjing Zhang, Weiyang Guo, Fengsheng Li, Weixia Sun, Jing Chen, Chi Zhang, Xuemian Lu, **Yi Tan**, Wenke Feng, Yaowen Fu, Gilbert C. Liu, Zhonggao Xu, Lu Cai. Up-regulation of Nrf2 is involved in FGF21-mediated fenofibrate protection against type 1 diabetic nephropathy. *Free Radic Biol Med*. 2016; 93:94-109.
92. Jingjing Zhang, Yanli Cheng, Junlian Gu, Shudong Wang, Shanshan Zhou, Yuehui Wang, **Yi Tan**, Wenke Feng, Yaowen Fu, Nicholas Mellen, Rui Cheng, Jianxing Ma, Chi Zhang, Zhanquan Li, Lu Cai. Fenofibrate increases cardiac autophagy via FGF21/SIRT1 and prevents fibrosis and inflammation in the hearts of type 1 diabetic mice. *Clin Sci (Lond)*. 2016; 130(8):625-41.
93. Manyu Luo, Ping Luo, Zhiguo Zhang, Kristen Payne, Sara Watson, Hao Wu, **Yi Tan**, Yushuang Ding, Weixia Sun, Xinmin Yin, Xiang Zhang, Gilbert Liu, Kupper Wintergerst, Lining Miao, Lu Cai. Zinc delays the progression of obesity-related glomerulopathy in mice via down-regulating P38 MAPK-mediated inflammation. *Obesity (Silver Spring)*. 2016; 24(6):1244-56.
94. Hao Wu, Lili Kong, **Yi Tan**, Paul N. Epstein, Jun Zeng, Junlian Gu, Guang Liang, Maiying Kong, Xiangmei Chen, Lining Miao and Lu Cai. C66 ameliorates diabetic nephropathy by both inhibiting miR-21 and up-regulating Nrf2 function via increase in miR-200a. *Diabetologia*. 2016; 59(7):1558-68.
95. Zheng Xu, Shudong Wang, Honglei Ji, Zhiguo Zhang, Jing Chen, **Yi Tan**, Kupper Wintergerst, Yang Zheng, Jian Sun & Lu Cai. Broccoli sprout extract prevents diabetic cardiomyopathy via Nrf2 activation in db/db T2DM mice. *Sci Rep*. 2016; 6: 30252.
96. Jun Chen, Shudong Wang, Manyu Luo, Zhiguo Zhang, Xiaozhen Dai, Lu Cai, Bingyin Shi, Yuehui Wang, **Yi Tan**. Zinc deficiency worsens and supplementation prevents high-fat diet induced vascular inflammation, oxidative stress, and pathological remodeling. *Toxicol Sci*. 2016; 153(1):124-36.
97. Shudong Wang, Manyu Luo, Zhiguo Zhang, Junlian Gu, Jing Chen, Kristen McClung Payne, **Yi Tan**, Yuehui Wang, Xia Yin, Xiang Zhang, Gilbert C Liu, Kupper Wintergerst, Quan Liu, Yang Zheng, Lu Cai. Zinc deficiency exacerbates while zinc supplement attenuates cardiac hypertrophy in high-fat diet-induced obese mice through modulating p38 MAPK-dependent signaling. *Toxicol Lett*. 2.16, 258: 134–146.
98. Zhouguang Wang, Yan Huang, Yi Cheng, **Yi Tan**, Fenzan Wu, Jiamin Wu, Hongxue Shi, Hongyu Zhang, Xichong Yu, Hongchang Gao, Li Lin, Jun Cai, Jinsan Zhang, Xiaokun Li, Lu Cai and Jian Xiao. Endoplasmic reticulum stress-induced neuronal inflammatory response and apoptosis likely plays a key role in the development of diabetic encephalopathy. *Oncotarget*. 2016; 7:78455-78472.
99. Cong Weitao, Niu Chao, Lv Lingchun, Ni Maowei, Ruan Dandan, Chi Lisha, Wang Yang, Yu Qing, Zhan Kungao, Xuan Yuanhu, Wang Yuehui, **Tan Yi**, Wei Tiemin, Cai Lu, and Jin Litai. Metallothionein prevents age-associated cardiomyopathy via inhibiting NF- κ B pathway activation and associated nitrative damage to 2-OGD. *Antioxid Redox Signal*. 2016; 25(17):936-952.
100. Peng Cheng, Fangfang Zhang, Lechu Yu, Xiufei Lin, Luqing He, Xiaokun Li, Xuemian Lu, Xiaoqing Yan, **Yi Tan***, and Chi Zhang*. Physiological and Pharmacological Roles of FGF21 in Cardiovascular Diseases. *J Diabetes Res*. 2016; 2016:1540267.

2017

101. Kong L, Wang Y, Luo M, **Tan Y**, Cui W, Miao L. Prevention of Streptozotocin-Induced Diabetic Nephropathy by MG132: Possible Roles of Nrf2 and IκB. *Oxidative Med Cell Longev*. 2017; 2017:3671751.
102. Wang Y, Wu H, Xin Y, Bai Y, Kong L, Tan Y, Liu F, Cai L. Sulforaphane Prevents Angiotensin II-Induced Testicular Cell Death via Activation of NRF2. *Oxidative Med Cell Longev*. 2017; 2017:5374897.
103. Junlian Gu, Yanli Cheng, Hao Wu, Lili Kong, Shudong Wang, Zheng Xu, Zhiguo Zhang, **Yi Tan**, Bradley B. Keller, Honglan Zhou, Yuehui Wang, Zhonggao Xu, Lu Cai. Metallothionein is Downstream of Nrf2 and Partially Mediates Sulforaphane Prevention of Diabetic Cardiomyopathy. *Diabetes*. 2017; 66:529–542.
104. Edward C. Carlson, Jennifer M. Chhoun, Bryon D. Grove, Donna I. Laturnus, Shirong Zheng, Paul N. Epstein and **Yi Tan**. Renoprotection from Diabetic Complications in OVE Transgenic Mice by Endothelial Cell Specific Overexpression of Metallothionein: A TEM Stereological Analysis. *Anat Rec (Hoboken)*. 2017; 300:560–576.
105. Xiaozhen Dai, Xiaoqing Yan, Jun Zeng, Jing Chen, Yuehui Wang, Jun Chen, Yan Li, Michelle T. Barati, Kupper A. Wintergerst, Kejian Pan, Matthew A. Nystoriak, Daniel J. Conklin, Gregg Rokosh, Paul N. Epstein, Xiaokun Li, **Yi Tan***. Elevating CXCR7 improves angiogenic function of EPCs via Akt/GSK-3β/Fyn-mediated Nrf2 activation in diabetic limb ischemia. *Circulation Research*. 2017; 120: e7-e23.
106. Zhifeng Huang[†], **Yi Tan[†]**, Junlian Gu[†], Yang Liu, Lintao Song, Jianlou Niu, Longwei Zhao, Lakshmi Srinivasan, Qian Lin, Jingjing Deng, Yang Li, Daniel J. Conklin, Thomas A. Neubert, Lu Cai, Xiaokun Li*, and Moosa Mohammadi*. Uncoupling the Mitogenic and Metabolic Functions of FGF1 by Tuning FGF1-FGF Receptor Dimer Stability. *Cell Reports*. 2017; 20, 1717–1728.
107. Xiaoqing Yan, Lianpin Wu, Qian Lin, Xiaozhen Dai, Haiqi Hu, Kai Wang, Chi Zhang, Minglong Shao, Lu Cai, **Yi Tan***. Alcohol Inhibition of the Enzymatic Activity of Glyceraldehyde 3-Phosphate Dehydrogenase Impairs Cardiac Glucose Utilization, Contributing to Alcoholic Cardiomyopathy. *Toxicological Sciences*. 2017; 159(2): 392-401.
108. Xiaoqing Yan, Xiaozhen Dai, Luqing He, Xiao Ling, Minglong Shao, Chi Zhang, Yuehui Wang, Jian Xiao, Lu Cai, Xiaokun Li*, **Yi Tan***. A Novel CXCR4 antagonist enhances angiogenesis via modifying the ischaemic tissue environment. *J Cell Mol Med*. 2017; 21(10): 2298-2307.
109. Shanshan Zhou, Xia Yin, Jingpeng Jin, **Yi Tan**, Daniel J. Conklin, Ying Xin, Zhiguo Zhang, Weixia Sun, Taixing Cui, Jun Cai, Yang Zheng*, Lu Cai. Intermittent hypoxia-induced cardiomyopathy and its prevention by Nrf2 and metallothionein. *Free Radic Biol Med*. 2017; 112:224-239.
110. Congcong Chen, Chaosheng Lu, Yan Qian, Haiyan Li, **Yi Tan**, Lu Cai & Huachun Weng. Urinary miR-21 as a potential biomarker of hypertensive kidney injury and fibrosis. *Scientific Reports*. 2017; (2017) 7:17737. DOI:10.1038/s41598-017-18175-3.

2018

111. Yixuan Sun, Mingfeng Xia, Hongmei Yan, Yamei Han, Feifei Zhang, Zhimin Hu, Aoyuan Cui, Fengguang Ma, Zhengshuai Liu, Qi Gong, Xuqing Chen, Jing Gao, Hua Bian, **Yi Tan**, Yu Li, Xin Gao. Berberine Attenuates Hepatic Steatosis and Enhances Energy Expenditure in Mice by Inducing Autophagy and Fibroblast Growth Factor 21. *British Journal of Pharmacology*. 2018; 175(2):374-387.
112. Guang Liang, Lintao Song, Zilu Chen, Yuanyuan Qian, Junjun Xie, Longwei Zhao, Qian Lin, Guanghui Zhu, **Yi Tan**, Xiaokun Li, Moosa Mohammadi and Zhifeng Huang*. Fibroblast Growth Factor 1 Ameliorates Diabetic Nephropathy Through an Anti-inflammatory Mechanism. *Kidney International*. 2018; 93(1):95-109.
113. Xiaozhen Dai, Jun Zeng, Xiaoqing Yan, Qian Lin, Kai Wang, Jing Chen, Feixia Shen, Xuemei Gu, Yuehui Wang, Jun Chen, Kejian Pan, Lu Cai, Kupper A. Wintergerst, **Yi Tan***. Sitagliptin preservation of endothelial

progenitor cell function via augmenting autophagy enhances ischemic angiogenesis in diabetes. *J Cell Mol Med*. 2018; 22(1): 89-100.

114. Ying Xin, Yang Bai, Xin Jiang, Shanshan Zhou, Yuehui Wang, Kupper A. Wintergerst, Taixing Cui, Honglei Ji*, **Yi Tan***, Lu Cai. Sulforaphane prevents angiotensin II-induced cardiomyopathy by activation of Nrf2 via stimulating the Akt/GSK-3 β /Fyn pathway. *Redox Biology*. 2018; 15: 405-417.
115. Xinyue Hu, Mohanraj Rajesh, Jian Zhang, Shanshan Zhou, Shudong Wang, Jian Sun, **Yi Tan**, Yang Zheng, Lu Cai. Protection by dimethyl fumarate against diabetic cardiomyopathy in type 1 diabetic mice likely via activation of nuclear factor erythroid-2 related factor 2. *Toxicol Lett*. 2018; 287:131-141.
116. Junlian Gu, Xiaoqing Yan, Xiaozhen Dai, Yuehui Wang, Qian Lin, Jian Xiao, Shanshan Zhou, Jian Zhang, Kai Wang, Jun Zeng, Ying Xin, Michelle T Barati, Chi Zhang, Yang Bai, Yan Li, Paul N. Epstein, Kupper A. Wintergerst, Xiaokun Li, **Yi Tan***, Lu Cai. Metallothionein preserves Akt2 activity and cardiac function via inhibiting TRB3 in diabetic hearts. *Diabetes*. 2018; 67(3): 507-517.
117. Junlian Gu, Shudong Wang, Hua Guo, **Yi Tan**, Yaqin Liang, Anyun Feng, Qiuju Liu, Chendil Damodaran, Zhiguo Zhang, Bradley B. Keller, Chi Zhang & Lu Cai. Inhibition of p53 prevents diabetic cardiomyopathy by preventing early-stage apoptosis and cell senescence, reduced glycolysis, and impaired angiogenesis. *Cell Death & Disease*. 2018. 9(2):82.
118. Feifei Zhang, Zhimin Hu, Gaopeng Li, Shaofeng Huo, Fengguang Ma, Aoyuan Cui, Yaqian Xue, Yamei Han, Qi Gong, Jing Gao, Hua Bian, Zhuoxian Meng, Haifu Wu, Gang Long, **Yi Tan**, Yan Zhang, Xu Lin, Xin Gao, Aimin Xu, Yu Li. Hepatic CREBZF Couples Insulin to Lipogenesis by Inhibiting Insig activity and Contributes to Hepatic Steatosis in Diet-Induced Insulin-Resistant Mice. *Hepatology*. 2018; 68:1361-1375.

2019

119. Xuan Li, Jia Liu, Qingguo Lu, Di Ren, Xiaodong Sun, Thomas Rousselle, **Yi Tan**, Ji Li. AMPK: a therapeutic target of heart failure-not only metabolism regulation. *Biosci Rep*. 2019; 39(1): BSR20181767. (IF=2.939)
120. Congcong Chen, Hongwei Wang, Bicheng Chen, Deyuan Chen, Chaosheng Lu, Haiyan Li, Yan Qian, **Yi Tan**, Huachun Weng, Lu Cai. Pex11a deficiency causes dyslipidaemia and obesity in mice. *J Cell Mol Med*. 2019; 23(3): 2020-2031.
121. Haiyan Hu, Xuan Li, Di Ren, **Yi Tan**, Jimei Chen, Lei Yang, Ruiping Chen, Ji Li, Ping Zhu. The cardioprotective effects of carvedilol on ischemia and reperfusion injury by AMPK signaling pathway. *Biomedicine & Pharmacotherapy*. 2019; 117(2019):109106.

2020

122. Wanning Wang, Saizhi Jiang, Xiaoqiang Tang, Lu Cai, Paul N. Epstein, Yanli Cheng, Weixia Sun*, Zhonggao Xu*, **Yi Tan**. Sex differences in progression of diabetic nephropathy in OVE26 type 1 diabetic mice. *BBA - Molecular Basis of Disease*. 2020; 1866 (2020) 165589.
123. **Yi Tan***, Zhiguo Zhang, Chao Zheng, Kupper A. Wintergerst, Bradley B. Keller, Lu Cai*. Mechanisms of diabetic cardiomyopathy and potential therapeutic strategies: preclinical and clinical evidence. *Nature Reviews Cardiology*. 2020; 17(9):585-607. PMID: 32080423.
124. Xiaozhen Dai*, Xiaoqing Yan, Lu Cai, Kupper A. Wintergerst, Bradley B. Keller*, **Yi Tan***. Nrf2: Redox and Metabolic Regulator of Stem Cell State and Function. *Trends in Molecular Medicine*. 2020; 26(2): 185-200.
125. Kai Wang, Xiaozhen Dai, Junhong He, Xiaoqing Yan, Chengkui Yang, Xia Fan, Shiyue Sun, Jing Chen, Jianxiang Xu, Zhongbin Deng, Jiawei Fan, Xiaohuan Yuan, Hairong Liu, Edward C Carlson, Feixia Shen, Kupper A Wintergerst, Daniel J Conklin, Paul N Epstein, Chaosheng Lu, **Yi Tan***. Endothelial Overexpression of Metallothionein Prevents Diabetes Mellitus-Induced Impairment in Ischemia Angiogenesis via Preservation of HIF-1 α /SDF-1/VEGF Signaling in Endothelial Progenitor Cells. *Diabetes*. 2020; 69(8): 1779-1792. PMID: 32404351.

126. Shunying Jin, Jia Li, Michelle Barati, Sanjana Rane, Qian Lin, **Yi Tan**, Zongyu Zheng, Lu Ca* and Madhavi J. Rane*. Loss of NF-E2 expression contributes to the induction of profibrotic signaling in diabetic kidneys. *Life Science*. 2020; 254(2020): 117783.
127. Lu C, Chen B, Chen C, Li H, Wang D, **Tan Y**, Weng H. CircNr1h4 regulates the pathological process of renal injury in salt-sensitive hypertensive mice by targeting miR-155-5p. *J Cell Mol Med*. 2020 Jan;24(2):1700-1712. PMID: 31782248.

2021

128. Xiang Wang, Xin-xin Chen, Hai-tao Yu, **Yi Tan**, Qian Lin, Bradley B. Keller, Yang Zheng & Lu Cai. Engineered cardiac tissues: a novel in vitro model to investigate the pathophysiology of mouse diabetic cardiomyopathy. *Acta Pharmacologica Sinica*. 2021; 42(6):932-941. PMID: 33037406.
129. Fan J, Liu H, Wang J, Zeng J, **Tan Y**, Wang Y, Yu X, Li W, Wang P, Yang Z, Dai X. Procyanidin B2 improves endothelial progenitor cell function and promotes wound healing in diabetic mice via activating Nrf2. *J Cell Mol Med*. 2021; 25(2):652-665. PMID: 33215883.
130. Qian Lin, Zhifeng Huang, Genxiang Cai, Xia Fan, Xiaoqing Yan, Zhengshuai Liu, Zehua Zhao, Jingya Li, Jia Li, Hongxue Shi, Maiying Kong, Ming-Hua Zheng, Daniel J. Conklin, Paul N. Epstein, Kupper A. Wintergerst, Moosa Mohammadi, Lu Cai, Xiaokun Li, Yu Li, **Yi Tan***. Activating AMPK Mediates Fibroblast Growth Factor 1 Protection from Nonalcoholic Fatty Liver Disease in Mice. *Hepatology*. 2021; 73(6): 2206-2222. PMID: 32965675.
131. Huang S, Wang J, Men H, **Tan Y**, Lin Q, Gozal E, Zheng Y, Cai L. Cardiac metallothionein overexpression rescues diabetic cardiomyopathy in Akt2-knockout mice. *J Cell Mol Med*. 2021; 25(14):6828-6840. PMID: 34053181.