

BIOGRAPHICAL SKETCH

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NAME Lin, Jiandie		POSITION TITLE Research Assistant Professor, Life Sciences Institute, and Assistant Professor, Cell & Developmental Biology	
eRA COMMONS USER NAME (credential, e.g., agency login) jlin01			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Beijing University, Beijing	B.S.	1994	Biochemistry
Northwestern University, Evanston	Ph.D.	2000	Endocrinology
Dana-Farber Cancer Institute, Boston	Post-doc	2000-2003	Cell Biology & Systems
Harvard Medical School, Boston	Instructor	2003-2005	Physiology

A. Positions and honors.Professional Experiences

2003-2005 Instructor, Department of Cell Biology, Harvard Medical School, Boston, MA
2005-present Assistant Professor, Cell & Developmental Biology
Research Assistant Professor, Life Sciences Institute
University of Michigan Medical School, Ann Arbor, MI

Honors

1988-1989 Chinese Academy of Science Program for the Talented Youngsters
1989 Honorary Admission to Beijing University
2001-2003 American Heart Association Postdoctoral Fellowship
2003-2008 NIH K01 Career Development Award
2008 The Anthony Linnane Young Investigator Award, Mitochondrial Research Society
2008 Career Development Award, American Diabetes Association

B. Selected peer-reviewed publications (in chronological order).

1. **Lin J**, Poole JC, Linzer DIH (1997) Two novel members of the prolactin/growth hormone family are expressed in the mouse placenta. *Endocrinol* 138: 5535-5540
2. **Lin J**, Poole JC, Linzer DIH (1997) Three new members of the mouse prolactin/growth hormone family are homologous to proteins expressed in the rat. *Endocrinol* 138: 5541-5549
3. **Lin J** and Linzer DIH (1998) Identification of trophoblast-specific regulatory elements in the mouse placental lactogen II gene. *Mol Endocrinol* 12: 418-427
4. **Lin J** and Linzer DIH (1999) Induction of megakaryocyte differentiation by a novel pregnancy-specific hormone. *J Biol Chem* 274: 21485-21489
5. Lefebvre P, **Lin J**, Linzer DIH, Cohen I (2000) Prolactin-like protein E stimulates human myeloid precursor survival and expansion *Exp Hematol* 29: 51-58
6. Puigserver P, Rhee J, **Lin J**, Wu Z, Yoon JC, Zhang CY, Krauss S, Mootha VK, Lowell BB, Spiegelman BM (2001) Cytokine stimulation of energy expenditure through p38 MAP kinase activation of PPARgamma coactivator-1. *Mol Cell* 8: 971-982
7. Bhattacharyya S, **Lin J**, Linzer DIH (2002) Reactivation of a hematopoietic endocrine program of pregnancy contributes to recovery from thrombocytopenia. *Mol Endocrinol* 16:1386-1389
8. Zhou B, Lum H, **Lin J**, Linzer DIH (2002) Two placental hormones are agonists in stimulating

megakaryocyte growth and differentiation. *Endocrinol* 143: 4281-4286

9. **Lin J**, Puigserver P, Donovan J, Tarr PT, Spiegelman BM (2002) Peroxisome proliferator-activated receptor gamma coactivator 1beta (PGC-1beta), a novel PGC-1-related transcription coactivator associated with host cell factor. *J Biol Chem* 277: 1645-1648

10. **Lin J**, Wu H, Tarr PT, Zhang CY, Wu Z, Boss O, Michael LF, Puigserver P, Isotani E, Olson EN, Lowell BB, Bassel-Duby R, Spiegelman BM (2002) Transcriptional co-activator PGC-1 α drives the formation of slow-twitch muscle fibres. *Nature* 418: 797-801

11. Handschin C, Rhee J, **Lin J**, Tarr PT, Spiegelman BM (2003) An autoregulatory loop controls peroxisome proliferator-activated receptor gamma coactivator 1 α expression in muscle. *Proc Natl Acad Sci USA* 100:7111-7116

12. **Lin J**, Tarr PT, Yang R, Rhee J, Puigserver P, Newgard CB, Spiegelman BM (2003) PGC-1 β in the regulation of hepatic glucose and energy metabolism. *J Biol Chem* 278:30843-30848

13. St-Pierre J, **Lin J**, Krauss S, Tarr PT, Yang R, Newgard CB, Spiegelman BM (2003) Bioenergetic analysis of PGC-1 α and PGC-1 β in muscle cells. *J Biol Chem* 278:26597-26603

14. Fan M, Rhee J, St-Pierre J, Handschin C, Puigserver P, **Lin J**, Jäger S, Erdjument-Bromage H, Tempst P, Spiegelman BM (2004) Suppression of mitochondrial respiration through recruitment of p160 myb binding protein to PGC-1 α : modulation by p38 MAPK. *Genes Dev* 18:278-289

15. **Lin J**, Wu P, Tarr PT, Lindenberg KS, St-Pierre J, Zhang CY, Mootha VK, Jäger S, Vianna CR, Reznick RM, Cui L, Manieri M, Donovan MX, Wu Z, Cooper MP, Fan MC, Rohas LM, Zavacki A, Cinti S, Shulman GI, Lowell BB, Krainc D, Spiegelman BM (2004) Defects in adaptive energy metabolism with CNS-linked hyperactivity in PGC-1 α null mice. *Cell* 119:121-135

16. Arany Z*, He H*, **Lin J***, Hoyer K, Handschin C, Doka O, Chin S, Wu P, Rybkin II, Shelton JM, Manieri M, Cinti S, Schoen FJ, Bassel-Duby R, Ingwall J, Spiegelman BM (2005) Transcriptional coactivator PGC-1 α controls the energy state and contractile function of cardiac muscle. *Cell Metabolism* 1:259-271 (*Equal contribution)

17. **Lin J**, Yang R, Tarr PT, Wu P, Handschin C, Li S, Yang W, Pei L, Uldry M, Tontonoz P, Newgard CB, Spiegelman BM (2005) Hyperlipidemic effects of dietary saturated fats mediated through PGC-1 β coactivation of SREBP. *Cell* 120:261-273

18. Handschin C, **Lin J**, Wu P, Rhee J, Peyer A, Meyer UA, Spiegelman BM. (2005) Nutritional regulation of hepatic heme biosynthesis and porphyria through PGC-1 α . *Cell* 122,505-515

19. Uldry M, Yang W, St-Pierre J, **Lin J**, Seale P, Spiegelman BM (2006) Complementary action of the PGC-1 coactivators in mitochondrial biogenesis and brown fat differentiation. *Cell Metab.* 3:333-341

20. Sandri M*, **Lin J***, Handschin C, Yang W, Arany ZP, LeckerSH, Goldberg AL, Spiegelman BM (2006) PGC-1 protects skeletal muscle from atrophy by suppressing FoxO3 action and atrophy-specific gene transcription. *Proc Natl Acad Sci USA* 103:16260-16265 (*Equal contribution)

21. Cooper MP, Qu L, Rohas LM, **Lin J**, Yang W, Erdjument-Bromage H, Tempst P, Spiegelman BM (2006) Defects in energy homeostasis in Leigh syndrome French Canadian variant through PGC-1{alpha}/LRP130 complex. *Genes Dev* 20:2996-3009

22. Vianna CR, Huntgeburth M, Coppari R, Choi CS, **Lin J**, Krauss S, Barbatelli G, Tzameli I, Kim YB, Cinti S, Shulman GI, Spiegelman BM, Lowell BB (2006) Hypomorphic mutation of PGC-1beta causes mitochondrial dysfunction and liver insulin resistance. *Cell Metab.* 4:453-464

23. Liu C, Li S, Liu T, Borjigin J, **Lin JD** (2007) Transcriptional coactivator PGC-1 α integrates mammalian clock and energy metabolism. *Nature*, 447:477-481. PMID: 17476214

24. Calvo JA, Daniels TG, Wang X, Paul A, **Lin J**, Spiegelman BM, Stevenson SC, Rangwala SM (2008) Muscle-specific expression of PPARgamma coactivator-1alpha improves exercise performance and

increases peak oxygen uptake. *J Appl Physiol*, 104: 1304-12

25. Zhao B, Ye X, Yu J, Li L, Li W, Li S, Yu J, **Lin JD**, Wang CY, Chinnaiyan AM, Lai ZC, Guan KL (2008) TEAD mediates YAP-dependent gene induction and growth control. *Genes Dev* 22:1962-71 PMID: PMC2492741

26. Choi CS, Befroy DE, Codella R, Kim S, Reznick RM, Hwang YJ, Liu ZX, Lee HY, Distefano A, Samuel VT, Zhang D, Cline GW, Handschin C, **Lin J**, Petersen KF, Spiegelman BM, Shulman GI. (2008) Paradoxical effects of increased expression of PGC-1 α on muscle mitochondrial function and insulin-stimulated muscle glucose metabolism. *Proc Natl Acad Sci* 105(50):19926-31.

27. Li S, Liu C, Li N, Hao T, Han T, Hill DE, Vidal M, **Lin JD** (2008) Genome-wide coactivation analysis of PGC-1 α identifies BAF60a as a regulator of hepatic lipid metabolism. *Cell Metabolism*, 8:105-117. PMID: 18680712

28. Li S, Arland E, Liu C, Vitvitsky V, Hernandez C, Banerjee R, Bottiglieri T, **Lin JD** (2009) Regulation of homocysteine homeostasis through the transcriptional coactivator PGC-1 α . *Am. J. Physiol. Endo. Metab.* 296:E543-548. PMID: 19158324

Invited Reviews

1. **Lin J** and Linzer DIH (1999) A novel megakaryocyte differentiation factor from mouse placenta. *Trends in Cardiovascular Med* 9:167-171

2. **Lin J**, Handschin C, Spiegelman BM (2005) Metabolic control through the PGC-1 family of transcription coactivators. *Cell Metabolism* 1:361-370. PMID: 16054085

3. **Lin JD**, Liu C, Li S (2008) Integration of energy metabolism and the mammalian clock. *Cell Cycle*, 7:453-457. PMID: 18235232

4. **Lin JD** (2009) The PGC-1 coactivator networks: chromatin-remodeling and mitochondrial energy metabolism. *Mol Endocrinol*, 23:2-10. PMID: 19008463

5. Hernandez C, **Lin JD** (2009) A sweet path to insulin resistance through PGC-1 β . *Cell Metabolism* 9:215-6. PMID: 19254566

6. Li S, **Lin JD** (2009) Molecular control of circadian metabolic rhythms. *J. App. Physiol.*, in press PMID: 19574505

C. Research support

ACTIVE

R01 DK077086 Lin (PI)

07/01/2007-06/30/2012

NIDDK

PGC-1 β in the regulation of hepatic lipid metabolism

The major goals of this project are to investigate the role of PGC-1 β in the regulation of plasma lipoprotein metabolism and to explore the role of nuclear receptors in mediating its activities.

Role: PI

R01 HL097738 Lin (PI)

07/01/2009-06/30/2013

NHLBI

Integration of circadian rhythm and energy metabolism through coactivator PGC-1 α

The major goals of this project are to investigate mechanisms that regulate circadian integration of metabolic programs and to explore the crosstalk between circadian timing and metabolic signaling pathways.

Role: PI

Career Development Award Lin (PI) 07/01/2008-06/30/2013
American Diabetes Association,
Regulation of hepatic lipid metabolism through the PGC-1 α /Smarcd1 coactivator complex
Role: PI

Scientist Development Grant Siming Li (PI) 07/01/2009-06/30/2013
American Heart Association
Regulation of circadian metabolic rhythms
Role: PI

Predocctoral Fellowship Di Ma (PI) 07/01/2009-06/30/2011
American Heart Association,
Regulation of circadian autophagy rhythm by C/EBP β
Role: Sponsor

COMPLETED

K01 DK65584 Lin (PI) 12/2003-06/2008
NIH
Mentored Research Scientist Development Award,
Regulation of hepatic metabolism by PGC-1 coactivators

Innovative Grant, 5-2006-934 Lin (PI) 08/2006-7/2007
Juvenile Diabetes Research Foundation,
PGC-1 α in the regulation of reactive oxygen species metabolism
Role: PI