

## Lin Liu, Ph.D.

Regents Professor of Physiological Sciences  
Lundberg-Kienlen Endowed Chair in Biomedical Research  
College of Veterinary Medicine  
Director, Oklahoma Center for Respiratory and Infectious Diseases  
Oklahoma State University

### Contact Information:

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### Education:

1984: B.S., Chemistry, University of Science & Technology of China

1989: Ph.D., Biochemistry, Shanghai Institute of Biochemistry, Chinese Academy of Sciences

1991: Postdoc, Biochemistry, Dept of Biochem and Biophys, University of Pennsylvania Med Center

1992: Postdoc, Lung Biology, Institute For Environmental Med, University of Pennsylvania Med Center

### Academic Appointments:

1992-1995: Research Associate, Institute for Environmental Medicine, University of Pennsylvania

1995-1997: Associate Investigator, Institute for Environmental Medicine, University of Pennsylvania

1997-2000: Research Assistant Professor, Department of Physiology, East Carolina University

2000-2004: Associate Professor, Department of Physiological Sciences, Center for Veterinary Health Sciences (CVHS), Oklahoma State University (OSU)

2004-present: Professor, Department of Physiological Sciences, CVHS (renamed to College of Veterinary Medicine, CVM in 2019), OSU

2008-present: Lundberg-Kienlen Professor/Chair in Biomedical Research, CVHS (renamed to College of Veterinary Medicine, CVM in 2019), OSU

2009-present: Regents Professor, OSU

2000-present: Director, (Lundberg-Kienlen) Lung Biology and Toxicology Lab, OSU

2010-2013: Riata Entrepreneurship Faculty Fellow, School of Entrepreneurship, OSU

2013-present: Director, Oklahoma Center for Respiratory and Infectious Diseases

2013-present: Director, Interdisciplinary Program in Regenerative Medicine at OSU

### Awards and Honors:

1992: Natural Science Award of Chinese Academy of Science

1998: FASEB MARC SRC Scholarship Award

2004: Pfizer Award for Research Excellence

2006: Regents Distinguished Research Award, Oklahoma State University

2009: Pfizer Award for Research Excellence

2014: Second place, 2014 OSU President's Cup for Creative Interdisciplinarity (Role, Team Leader)

2015: National Academy of Inventors

### **Other Experience and Professional Memberships:**

1994-present: American Association for the Advancement of Science  
2003-present: American Physiological Society  
2003-present: American Physiological Society  
2013-present: National Association of IDeA Principal Investigators  
2015-Present: International Society for Stem Cell Research  
2016-present: American Society of Virology  
2008-2011: Member of the Steering Committee for the Physiological Genomics (PG) Interest Group of the American Physiological Society  
2009: Chair, Graduate Student Highlights in Physiological Genomics, Experimental Biology  
2010: Chair, Trainee Highlights in Physiological Genomics, Experimental Biology  
  
2019: Co-Chair, Infectious Diseases Session, IDeA Central Conference

### **Grant Review Panels:**

1998: Department of Veterans Affairs Merit Review  
2000: NIH, Lung Biology and Pathology (LBPA) Study Section  
2005: NIH, Lung Cellular, Molecular, and Immunobiology (LCMI) study section  
2005: USDA National Research Initiative Competitive Grant Program  
2005: NIH/NIBIB Program Project Special Emphasis Panel  
2006: NIH/NHLBI PPG Review Committee (x3)  
2006: NIH/NIGMS Minority Biomedical Research Support (MBRS) review committee  
2007: NIH, Respiratory Integrative Biology and Translational Research (RIBT) Study Section  
2007: Austrian Genome Research Programme GEN-AU  
2008, 2009: The Wellcome Trust, Physiological Sciences Grants  
2008, 2014: NIH, Lung Injury, Repair and Remodeling (LIRR) Study Section  
2010: Raine Medical Research Foundation, Australia  
2012: American Heart Association, Lung-Basic Science-2 committee  
2013: National Natural Science Foundation of China (NSFC), Lung Disease Study Section  
2014: United States-Israel Binational Science Foundation  
2014: NIH, Lung Injury, Repair and Remodeling (LIRR) Study Section  
2014: National Natural Science Foundation of China (NSFC), Key Program Study Section  
2014: National Natural Science Foundation of China (NSFC), Lung Disease Study Section (Co-Chair)  
2014: NIH/NIGMS INBRE Special Emphasis Panel ZGM1 TWD-0 (IN)  
2015: NIH/NHLBI Member Conflicts: Pulmonary Fibrosis and Lung Injury SEP,  
2016: SPARKS Children's Medical Research, UK  
2017: Israel Science Foundation  
2017: NIH, Lung Injury, Repair and Remodeling (LIRR) Study Section  
2017: NIH/NIGMS Centers for Biomedical Research Excellence Phase I Special Emphasis Panel  
  
2018: NIH Cardiovascular and Respiratory AREA (R15) Special Emphasis Panel, ZRG1 CVRS-L (80) A (Chair)  
2018: NIH Respiratory Sciences Small Business Activities Special Emphasis Panel [ZRG1 CVRS-H (11) B]  
2019: NIH Fellowships: Physiology and Pathobiology of Cardiovascular and Respiratory Systems [ZRG1 F10A-R (20)]  
2019: European Research Council Consolidator Grant

### **Research Support:**

Current:

- 2017-2021: NIH/NHLBI, R01HL135152, "The Role of LncRNAs in Pulmonary Fibrosis", Role: PI, Awarded: \$1,496,000

2017-2023: NIH/NIGMS, P20GM103648, "Oklahoma Center for Respiratory and Infectious Diseases" (CoBRE Phase II), Role, PI, Awarded: \$11,118,648.

2016-2020: NIH/NIAID, R21AI121591, "MicroRNA-193b Regulation of Influenza Virus Replication", Role, PI, Awarded: \$402,325 (NCE)

2019-2019: Oklahoma Center for Adult Stem Cell Research, "CRISPRa LncRNA Screen for the Differentiation of Mesenchymal Stem Cells into Alveolar Epithelial Type II Cells", Role: PI, Awarded: \$168,000.

Past:

- 2013-2018: NIH/NHLBI R01HL116876, "miR-101 Control of Pulmonary Fibrosis", Role: PI, Awarded: \$1,434,655.
- 2013-2018: NIH/NHLBI R01HL116876, "miR-101 Control of Pulmonary Fibrosis", Role: PI, Awarded: \$1,434,655.
- 2014-2017: Oklahoma Center for the Advancement of Science and Technology, Oklahoma Health Research Grant, HR14-060, "Purinergic P2X7 Receptor as a Pro-inflammatory Molecule", Role, PI, Awarded: \$135,000
- 2015-2018: NIH/NIAID, R21AI121591, "MicroRNA-193b Regulation of Influenza Virus Replication", Role: PI, Awarded: \$402,325.
- 2013-2018: NIH/NIGMS P20GM103648, "Oklahoma Center for Respiratory and Infectious Diseases", Role: PI, Awarded: \$11,231,206.
- 2014-2017: Oklahoma Center for the Advancement of Science and Technology, Oklahoma Health Research Grant, HR14-060, "Purinergic P2X7 Receptor as a Pro-inflammatory Molecule", Role, PI, Awarded: \$135,000
- 2016-2017: Oklahoma Center for Adult Stem Cell Research, "Stem Cell-based Therapy of Influenza Virus Infection", Role, PI, Awarded: \$168,000.
- 2015-2016: Oklahoma Center for Adult Stem Cell Research, "Mesenchymal Stem Cell Exosomes for Treating COPD", Role, PI, Awarded: \$168,000.
- 2014-2015: Oklahoma Center for Adult Stem Cell Research, "Mesenchymal Stem Cell-derived Lung Epithelial Cells for COPD Therapy", Role, PI, Awarded: \$168,000.
- 2013-2014: OSU Office of the Provost, "Interdisciplinary Program in Regenerative Medicine at OSU", Role: PI, Awarded: \$34,900.
- 2013-2014: Research Advisory Committee, CVHS, OSU, "Regulation of Influenza Virus Replication", Role: PI, Awarded: \$15,000.
- 2012-2014: Technology Business Development Program (TBDP), OSU, "MicroRNA Technology", Role: PI, Awarded: \$20,000
- 2012-2012: Oklahoma Center for Adult Stem Cell Research, "MicroRNA-mediated Differentiation of Induced Pluripotent Stem Cells into Alveolar Epithelial Type II Cells: Mechanisms and Therapy for COPD", Role: PI, Awarded: \$112,000
- 2011-2013: American Heart Association, Southwest Affiliate, "Regulation of VAMP-2 in Alveolar Type II Cells by MicroRNA-206", Role: PI, Awarded: \$130,000
- 2011-2012: Oklahoma Center for Adult Stem Cell Research, "A Shared Equipment for Creating a Lung Disease Model to Test Efficacy of Adult Stem Cell therapy", Role: PI, Awarded: \$42,560
- 2011-2011: Oklahoma Center for Adult Stem Cell Research, "Cell-based Therapy of COPD Using Induced Pluripotent Stem Cell-Derived Alveolar Epithelial Type II cells", Role: PI, Awarded: \$62,638.
- 2010-2012: Oklahoma Center for the Advancement of Science and Technology, "Development of MicroRNA Expression Library", Role: PI, Awarded: \$90,000
- 2010-2011: Oklahoma Center for Adult Stem Cell Research, "Purchase of Shared Equipment for Testing Efficacy of Adult Stem Cell therapy", Role: PI, Awarded: \$62,638
- 2010-2011: Oklahoma Center for Adult Stem Cell Research, "Reprogramming of Adult Lung Cells for Cell-Based Therapy", Role: PI, Awarded: \$72,800.
- 2009-2012: NIH/NHLBI R21 "Role of MicroRNAs in Bronchopulmonary Dysplasia", Role: PI, Awarded: \$402,600
- 2009-2012: NIH/NHLBI R03, "MicroRNA Expression Profiling in Idiopathic Pulmonary Fibrosis", Role: PI, Awarded: \$147,700.
- 2009-2012: U.S. Department of Agriculture, "MicroRNAs and Bovine Respiratory Disease", Role: PI, Awarded: \$225,000
- 2006-2011: NIH/NHLBI, R01 "Mechanisms of Alveolar Fluid Transport", Role: PI, Awarded: \$1,423,125.
- 2003-2008: NIH/NHLBI, R01 "Mechanisms of Alveolar Epithelial Cell Differentiation", Role: PI, Awarded: \$1,214,400
- 2003-2008: March of Dimes Birth Defects Foundation, "GABA Receptor and Pulmonary Fluid Transport", Role: PI, Awarded: \$258,075.

- 2004-2008: NIH/NHLBI, R01 "Molecular Mechanisms of Lung Surfactant Secretion", Role: PI, Awarded: \$1,214,400
- 2002-2004: American Heart Association, Heartland Affiliate, "Lung Epithelial Cell Differentiation and Oxidative Stress", Role, PI, Awarded: \$110,000
- 2001-2004: Oklahoma Center for the Advancement of Science and Technology, "Regulation of Lung Surfactant Secretion by Nitric Oxide", Awarded: \$135,000.
- 2000-2004: NIH/NHLBI, R01 "Molecular Mechanisms of Lung Surfactant Secretion", Role: PI, \$922,829
- 1995-2000: NIH/NHLBI R29, "Annexins and Lung Surfactant Secretion", Role: PI, Awarded: \$485,772
- 1993-1995: American Lung Association, "Proteolytic Modification of Annexins and Its Role in Exocytosis", Awarded: \$50,000

### **Selected Publications:**

1. Huang, C., Xiao, X., Yang, Y., Mishra, A., Liang, Y., Zeng, X., Yang, X., Xu D., Blackburn, M. R., Henke, C. A., and Liu, L. (2017) MicroRNA-101 attenuates pulmonary fibrosis by inhibiting fibroblast proliferation and activation. *J. Biol. Chem.* 292:16420-16439. PMID: PMC5633105
2. Wang, X., Wu, W., Zhang, W., Booth, J. L., Duggan, E. S., Tian, L., More, S., Zhao, Y. D., Sawh, R., N., Liu, L., Zou, M., and Metcalf, J. P. (2017) RIG-I overexpression decreases mortality of cigarette smoke exposed mice during influenza A virus infection. *Respir. Res.* 18:166.
3. Premaratne, G., Al Mubarak, Z., Senavirathna, K. S., Liu, L. and Krishnan, S. (2017) Measuring ultra-low levels of nucleotide biomarkers using quartz crystal microbalance and SPR microarray imaging methods: a comparative analysis. *Sensors & Actuators: B. Chemical.* 253:368-375.
4. Wang, L., Fu, B., Li, W., Patil, G., Liu, L., Dorf, M. E., and Li, S (2017). Comparative influenza protein interactomes reveal the role of PKP2 in perturbation of viral polymerase complex. *Nature Commun.* 8:13876.
5. Zeng\*, X., Huang\*, C., Senavirathna, L. K., Wang, P., and Liu, L. (2017) miR-27b inhibits fibroblast activation via targeting TGF $\beta$  signaling pathway. *BMC Cell Biol.* 18:9 (\*co-first author). PMID: PMC5240426.
6. Mishra, A., Guo, Y., Zhang, L., More, S., Weng, T., Chinatagari, N. R., Huang, C., Liang, Y., Pushparaj, S., Gou, D., Breshears, M. and Liu, L. (2016) A critical role of P2X7 receptor-induced VCAM-1 shedding and neutrophil infiltration during acute lung injury. *J. Immunol.* 197: 2828-2837. PMID: PMC5026933
7. Xiao, X., Senavirathna, L., K., Gou, X., Huang, C., Liang, Y. and Liu, L. (2016) EZH2 enhances the differentiation of fibroblasts to myofibroblasts in idiopathic pulmonary fibrosis. *Physiol. Rep.* 4:e12915. (Editor's Choice). PMID: PMC5027349
8. Qiu, H. L., Liu, N., Luo, L., Zhong, J. H., Tang, Z. X., Kang, K., Qu, J. L., Liu, L., Li, L., and Gou, D. (2016) MicroRNA-17-92 regulates myoblast proliferation and differentiation by targeting the ENH1/Id1 signaling axis, *Cell Death and Differ.* 23:1658-69. PMID: PMC5041193.
9. Zhang, L., Huang, C., Guo, Y., Gou, X., Hinsdale, H., Lloyd, P., and Liu, L. (2015) miR-26b modulates NF-kB pathway by regulating PTEN in bovine alveolar macrophages challenged with lipopolysaccharide. *J. Immunol.* 195: 5404-5414. PMID: PMC4655123.
10. Niu, Y., Zhang, L., Qiu, H., Wu, Y., Wang, Z., Zai, Y., Liu, L., Qu, J., Kang, K., and Gou, D. (2015) An improved method for detecting circulating microRNA with S-Poly(T) Plus real-time PCR. *Sci Rep.* 5: 15100.
11. Guo, Y., Mishra, A., Howland, E., Zhao, C., Shukla, D., Weng, T. and Liu, L. (2015) Platelet-derived Wnt antagonist dickkop-1 is implicated in ICAM-1/VCAM-1-mediated neutrophilic acute pulmonary inflammation. *Blood.* 126: 2220-2229. PMID: PMC4635118.
12. He, J., Huang, L., Qiu, H., Li, J., Luo, L., Li, Y., Tian, S., Kang, K., Liu, L., and Gou, D. (2015) A new design of a lentiviral shRNA vector with inducible co-expression of ARGONAUTE 2 for enhancing gene silencing efficiency. *Cell & Biosci.* 5:67
13. Huang, C., Yang, Y., and Liu, L. (2015) Interaction of lncRNAs and microRNAs in the pathogenesis of Idiopathic Pulmonary Fibrosis. *Physiol. Genomics.* 47:463-469. PMID: PMC4593830 (Selected for APSselect, a new collection from the APS that showcases some of the best recently published articles in physiological research).
14. Wang\*, Y., Huang\*, C., Chintagari, N. R., Xi, D., Weng, T., and Liu, L. (2015) miR-124 regulates pulmonary epithelial maturation by targeting NFIB. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 309:L400-L413. PMID: PMC4538233 (\*co-first author).
15. Mubarak, Z. H., Ramesh, R., Liu, L., and Krishnan, S. (2015) Surface Plasmon Resonance Imaging of Gold-Small Molecule Interactions Is Influenced by Refractive Index and Chemical Structures. *Journal of Colloid & Interface Science.* 460:209-213.

16. Zeng, Y., Wang, Y., Wu, Z., Kang, K., Peng, X., Qu, J., Liu, L., Raj, J.U., and Gou, D. (2015) MicroRNA-9 enhances the transactivation of nuclear factor of activated T cells by targeting KPNB1 and Dyrk1B. *Am. J. Physiol. Cell Physiol.* 308: C720–C728.
17. Xiao X., Huang, C., Zhao, C., Gou, X., Senavirathna, L. K., Hinsdale, M., Lloyd, P. and Liu, L. (2015) Regulation of myofibroblast differentiation by miR-424 during epithelial-to-mesenchymal transition. *Arch. Biochem. Biophys.* 566: 49-57. PMID: PMC4297572.
18. Zhang, H., Guo, Y., Mishra, A., Gou, D., Chintagari, N.R., and Liu, L. (2015) miR-206 regulates lung surfactant secretion by targeting VAMP-2. *FEBS Letter*, 589: 172-176. PMID: PMC4281256.
19. Narasaraju\*, T., Shukla\*, D. More, S., Huang, C. Zhang, L., Xiao, X., Liu, L. (2015) Role of miR-150 and glycoprotein non-metastatic melanoma protein B in hyperoxia-induced neonatal lung injury. *Am. J. Respir. Mol. Cell. Biol.* 52: 253-261 (\*co-first author). PMID:PMC4370241.
20. Zeng, H., Shu, W.Q., Chen, J.Q. Liu, L., Wang, D.H., Fu, W.J., Wang, L.Q., Luo, J.H., Zhang, L., Tan, Y., Qiu, Z.Q. and Huang, Y.J. (2014) Experimental comparison of the reproductive outcomes and early development of the offspring of rats given five common types of drinking water. *PLoS ONE* 9: e108955.
21. Wu, W, Zhang, W., More, S., Booth, J. L., Duggan, E. S., Liu, L., Zhao, Y. D., and Metcalf, J. P. (2014) Cigarette smoke attenuates the RIG-I-initiated innate antiviral response to influenza infection in two murine models. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 307:L848-L858. PMID: PMC4254961.
22. Huang, C., Xiao, X., Chintagari, N. R., Breshears, M., Wang, Y. and Liu, L. (2014) microRNA and mRNA expression profiling in rat acute respiratory distress syndrome. *BMC Medical Genomics*, 7:46. PMID: PMC4128536.
23. Guo, Y., Mishra, A., Weng, T., Chintagari, N. R., Wang, Y., Zhao, C., Huang, C., and Liu, L. (2014) Wnt3a mitigates acute lung injury by reducing P2X7 receptor-mediated alveolar epithelial type I cell death. *Cell Death Dis.* 5, e1286. PMID:PMC4611727.
24. Liu, L., Lloyd, P., and Hinsdale, M. (2014) Lung Development (Chapter 15) in "MicroRNA in Regenerative Medicine" (book chapter, Sen, C. eds, Academic Press), p381-399.
25. Kang, K., Peng, X., Zhang, X., Wang, Y., Zhang, L., Gao, L., Weng, T., Zhang, H., Ramchandran, R., Raj, J. U., Gou, D., and Liu, L. (2013) MicroRNA-124 suppresses the transactivation of nuclear factor of activated T cells by targeting multiple genes and inhibits the proliferation of pulmonary artery smooth muscle cells. *J. Biol. Chem.* 288:25414-25427. PMID: PMC3757204.
26. Wang Y., Huang, C., Chintagari, N. R., Bhaskaran, M., Huang, C., Weng, T., Guo, Y. and Liu, L. (2013) miR-375 regulates alveolar epithelial cell trans-differentiation by inhibiting Wnt/ $\beta$ -catenin pathway. *Nucleic. Acids Res.* 41:3833-44. PMID: PMC3616718.
27. Luo, J., Zhao, Q., Zhang, L., Qiu, Z., Liu, L., Chen, J., Zeng, H., Huang, Y., Tan, Y., Yang, L., Zhang, Y., Yang, X., Liu, W., Wang, L., and Shu, W. (2013) The consumption of low-mineral bottled water increases the risk of cardiovascular disease: An experimental study of rabbits and young men. *Int J. Cardiol.* 168:4454-4456.
28. Bhaskaran, M., Xi, D., Wang, Y., Huang, C. Narasaraju, T., Shu, W., Zhao, C. Xiao, X., More, S., Breshears, M. and Liu, L. (2012) Identification of microRNAs changed in the neonatal lungs in response to hyperoxia exposure. *Physiol. Genomics* 44:970-980. PMID: PMC3472467.
29. Weng, T., Mishra, A., Guo, Y., Wang, Y., Su, L. Huang, C., Zhao, C., Xiao, X. and Liu, L. (2012) Regulation of surfactant secretion by miR-150. *Biochem. Biophys. Res. Commun.* 422:586-589. PMID: PMC3377846.
30. Wang, P., Howard, M.D., Zhang, H., Chintagari, N. R., Bell, A., Jin, N., Mishra, A., and Liu, L. (2012) Characterization of VAMP-2 in the lung: implication in lung surfactant secretion. *Cell Biol. Intl.* 36: 785-791. PMID: PMC3434271.
31. Chintagari, N. R. and Liu, L. (2012) GABA receptor ameliorates ventilator-induced lung injury in rats by improving alveolar fluid clearance. *Critical Care* 16:R55. PMID: PMC3681384.
32. Zhao, C., Huang, C., Weng, T., Xiao, X., Ma, H., Liu, L. (2012) Computational prediction of microRNAs targeting GABA receptors and experimental verification of miR-181, miR-216 and miR-203 targets in GABA-A receptor. *BMC Res Notes.* 5:91. PMID: PMC 3296612.
33. Mishra, A., Chintagari, N. R., Guo, Y., Weng, T., Su, L., and Liu, L. (2011) Purinergic P2X7 receptor regulates lung surfactant secretion in a paracrine manner. *J. Cell Sci.* 124:657-668. PMID: PMC 3031375.
34. Chintagari, N. R., Jin, N., Gao, L., Wang, Y., Xi, D., and Liu, L. (2010) Role of GABA receptors in fetal lung development in rats. *PLoS One.* 5:e14171. PMID: PMC2994757.
35. Weng, T. and Liu, L. (2010) The Role of pleiotrophin and  $\beta$ -catenin in fetal lung development. *Respir Res* 11:80. PMID: PMC 2901351.
36. Chintagari, N. R., Mishra, A., Su, L., Ayalew, S., Hartson, H. and Liu, L. (2010) Vacuolar ATPase regulates surfactant secretion in rat alveolar type II cells by modulating lamellar body calcium. *PLoS One* 5: e9228. PMID: PMC 2821907.
37. Zhang, H., Mishra, A., Chintagari, N. R., Gou, D. and Liu, L. (2010) MicroRNA-375 inhibits lung surfactant secretion by altering cytoskeleton reorganization. *IUBMB Life.* 62:78-83. PMID: PMC 2806485.

38. Weng, T., Gao, L., Bhaskaran, M., Guo, Y., Gou, D., Narayanaperumal, J., Chintagari, N. R., Zhang, K. and Liu, L. (2009) Pleiotrophin regulates lung epithelial cell proliferation and differentiation via  $\beta$ -catenin and Dlk1. *J. Biol. Chem.* 284: 28021-28032. PMID: PMC 2788854.
39. Yang, C. X., Su, L., Wang, Y., and Liu, L. (2009) UTP regulation of ion transport in alveolar epithelial cells involves distinct mechanisms. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 297: L439-L454. PMID: PMC 2739774.
40. Bhaskaran\*, M., Wang\*, Y., Zhang, H., Weng, T., Baviskar, P., Guo, Y., Gou, D. and Liu, L. (2009) MicroRNA-127 modulates fetal lung development. *Physiol. Genomics.* 37:268-278. PMID: PMC 2685501 (\*co-first author) (selected for highlighting in the newsletter of the journal *Physiological Genomics*. only one article is chosen each month; Highlights from the Literature in Physiology 24:206, 2009).
41. Gou, D., Mishra, A., Weng, T., Su, L., Chintagari, N. R., Wang, Z., Zhang, H., Gao, L., Wang, P., Stricker, H. M. and Liu, L. (2008) Annexin A2 interactions with Rab14 in alveolar type II cells. *J. Biol. Chem.* 283: 13156-13164. PMID: PMC 2442313.
42. Posey, T., Weng, T., Chen, Z., Chintagari, N.R., Wang, P., Jin, N., Stricker, H. and Liu, L. (2008) Arsenic-induced changes in the gene expression of lung epithelial L2 Cells: implications in carcinogenesis. *BMC Genomics* 9:115. PMID: PMC 22922705.
43. Wang, P., Chintagari, N. R., Narayanaperumal, J., Ayalew, S., Hartson, H., and Liu, L. (2008) Proteomic analysis of lamellar bodies isolated from rat lung. *BMC Cell Biol.* 9:34. PMID: PMC2459160. (Faculty of 1000 Biology: evaluations for Wang P et al *BMC Cell Biol* 2008 9 :34 <http://www.f1000biology.com/article/id/1120385/evaluation>).
44. Jin, N., Guo, Y., Sun, P., Bell, A., Chintagari, N. R., Bhaskaran, M., Rains, K., Baviskar, P., Chen, Z., Weng, T., and Liu, L. (2008) Ionotropic GABA receptor expression in the lung during development. *Gene Exp. Pattn.* 8:397-403. PMID: PMC2581461.
45. Chintagari, N. R., Gou, D. and Liu, L. (2008) Knockdown of flotillin-2 inhibits lung surfactant secretion by alveolar type 2 cells. *Cell Res.* 18:701-703. PMID: 2430057.
46. Gou, D., Zhang, H., Baviskar, P. S. and Liu, L. (2007) Primer extension-based method for the generation of a siRNA/miRNA. *Physiol. Genomics.* 31: 554-562.
47. Chen, Z., Chintagari, N.R., Guo, Y., Bhaskaran, M., Chen, J. W., Gao, L., Jin, N., Weng, T. and Liu, L. (2007) Gene expression profiles of rat alveolar type II cells during hyperoxia exposure and early recovery. *Free Radic. Biol. Med.* 43: 628-642. PMID: PMC 2075096
48. Wang, P., Chintagari, N.R., Gou, D., Su, L. and Liu, L. (2007) Physical and functional interactions of SNAP-23 with Annexin A2. *Am. J. Respir. Cell Mol. Biol.* 37: 467-476. PMID: PMC 2176122.
49. Wang, Y., Weng, T., Gou, D., Chen, Z., Chintagari, N.R. and Liu, L. (2007) Identification of rat lung-specific microRNAs by microRNA microarray: valuable discoveries for the facilitation of lung research. *BMC Genomics.* 8:29. PMID: PMC1790902.
50. Bhaskaran, M., Kolliputi, N., Wang, Y., Gou, D., Chintagari, N. R. and Liu, L. (2007) Trans-differentiation of alveolar epithelial type II cells to type I cells involves autocrine signaling by TGF- $\beta$ 1 through the smad pathway, *J. Biol. Chem.* 282:3968-3976.
51. Gou, D., Weng, T., Wang, Y., Wang, Z., Zhang, H., Gao, L., Chen, Z., Wang, P. and Liu, L. (2007) A new approach for the construction of multiple shRNA expression vectors. *J. Gene Med.* 9:751-763. (Featured in this issue, <http://www3.interscience.wiley.com/cgi-bin/fulltext/115805811/HTMLSTART>)
52. Wang, Y., Stricker, H., Gou, D. and Liu, L. (2007) MicroRNA: past and present. *Front. Biosci.* 12: 2316-2329.
53. Jin, N., Kolliputi, N., Gou, D., Weng, T. and Liu, L. (2006). A novel function of ionotropic  $\gamma$ -aminobutyric acids receptors involving alveolar fluid homeostasis. *J. Biol. Chem.* 281:36012-36021.
54. Weng, T., Chen, Z., Jin, N., Gao, L. and Liu, L. (2006) Gene expression profiling identifies regulatory pathways involved in the late stage of rat lung development. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 191:L1027-L1037.
55. Chen\*, J. W., Chen\*, Z. Chintagari, N. R., Bhaskaran, M., Jin, N., Narasaraju, T. A. and Liu, L. (2006) Alveolar type I cells protect lung epithelium from oxidative injury. *J. Physiol.* 572: 625-638. PMID: PMC177994 (see comment for this paper, <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dop...>) (see press release for this paper: [http://www.eurekalert.org/pub\\_releases/2006-05/bpl-ati050506.php](http://www.eurekalert.org/pub_releases/2006-05/bpl-ati050506.php)). (\*co-first author).
56. Jin, N. He, K. and Liu, L. (2006) qPCR-DAMS: a database tool to analyze, manage, and store both relative and absolute real time PCR data. *Physiol. Genomics*, 25:525-527.
57. Chintagari, N. R., Jin, N., Wang, P., Narasaraju, T., Chen, J. and Liu, L. (2006) Effect of cholesterol on the exocytosis of alveolar type II cells. *Am. J. Respir. Cell. Mol. Biol.* 34: 677-687. PMID: PMC2644229.
58. Chen, Z., Chen, J. W., Weng, T., Jin, N. and Liu, L. (2006) Identification of rat lung-prominent genes by a parallel DNA microarray hybridization. *BMC Genomics*, 7:47. PMID: PMC1523215.
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