

BIOGRAPHICAL SKETCH

NAME Narasaiah Kolliputi	POSITION TITLE Associate Professor
eRA COMMONS USER NAME nkolliputi	

<i>EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Sri Venkateswara University, Tirupathi, India	BS	1994-1997	Biology and Chemistry
Sri Venkateswara University, Tirupathi, India	MS	1997-1999	Biochemistry
Osmania University, Hyderabad, India	Ph.D	1999-2004	Biochemistry

Positions and honors

1999 - 2000	Research Assistant, GM Reddy research foundation, Hyderabad India
2000 - 2002	Junior Research Fellow, Department of Biochemistry, Osmania University, Hyderabad, India
2003 - 2004	Senior Research Fellow, Department of Biochemistry, Osmania University, Hyderabad, India
2004 - 2006	Post-doctoral Fellow, Department of Physiology, Oklahoma State University, Stillwater, Oklahoma
2006 - 2008	Post-doctoral Fellow, Pulmonary & Critical Care, Massachusetts General Hospital/Harvard Medical School, Boston, Massachusetts
2008 - 2009	Research Scientist, Pulmonary & Critical Care, Massachusetts General Hospital/Harvard Medical School, Boston, Massachusetts
2010 - 2013	Assistant Professor, Division of Allergy and Immunology, Department of Internal Medicine, University of South Florida, Tampa, Florida
2013 - Present	Associate Professor, Division of Allergy and Immunology, Department of Internal Medicine, University of South Florida, Tampa, Florida

Awards:

2000	Council of Scientific and Industrial Junior Research Fellowship, India
2003	Council of Scientific and Industrial Senior Research Fellowship, India
2004	International Travel Award, Advances against Aspergillosis meeting, San Francisco
2009	Society for Experimental Biology and Medicine Young Investigator Award, Maywood, New Jersey

Honors:

2011 – Present	Associate Editor, Frontiers in Respiratory Pharmacology
----------------	---

2012 – Present	Member, Lung Biology Basic Science study section-2, American Heart Association
2012 – Present	Associate Editor, <i>Frontiers in Oxidant Physiology</i>
2013 –	Early Stage Reviewer (June), Lung Cellular, Molecular, and Immunobiology Study Section [LCMI], NIH
2013 –	Ad Hoc Reviewer (Dec) VA Merit Grant, Pulmonology Study Section

Selected peer-reviewed publications (in chronological order)

1. Jin, N., Narasaraju, T., **Kolliputi, N.**, Chen, J.W., and Liu, L. Differential expression of GABAA receptor pi subunit in cultured rat alveolar epithelial cells. *Cell Tissue Res.* 2005; 321:173-832. PMID:5912403
2. **Narasaiah KV**, Sashidhar RB, Subramanyam C. Biochemical analysis of oxidative stress in the production of aflatoxin and its precursor intermediates. *Mycopathologia.* 2006; 162:179-89. PMID: 16944285
3. Jin N, **Kolliputi N**, Gou D, Weng T, Liu L. A novel functions of ionotropic gamma-aminobutyric acid receptors involving alveolar fluid homeostasis. *J Biol Chem.* 2006; 281: 36012-20. PMID: 17003036
4. Bhaskaran M, **Kolliputi N**, Wang Y, Gou D, Chintagari NR, Liu L. Trans-differentiation of alveolar epithelial type II cells to type I cells involves autocrine signaling by transforming growth factor beta 1 through the Smad pathway. *J Biol Chem.* 2007; 282: 3968-76. PMID: 17158884
5. **Kolliputi N** and Waxman AB. The protective effect of IL-6 in hyperoxic acute lung injury is associated with SOCS through ASK-1 degradation. *Am J Respir Cell Mol Biol.* 2009; 40:314-24. PMID: PMC2645529
6. Steiner MK, Syrkina OL, **Kolliputi N**, Mark EJ, Hales CA, Waxman AB. Interleukin-6 overexpression induces pulmonary hypertension. *Circ Res.* 2009;104:236-44 PMID: 19074475
7. **Kolliputi N**, Waxman AB. IL-6 cytoprotection in hyperoxic acute lung injury occurs via PI3K/Akt-mediated Bax phosphorylation. *Am J Physiol Lung Cell Mol Physiol.* 2009; 297: 6-16. PMID: PMC2711806
8. Waxman AB, **Kolliputi N**. IL-6 protects against hyperoxia induced mitochondrial damage via BCL-2 induced BAK interactions with mitofusions. *Am J Respir Cell Mol Biol.* 2009;41(4):385-96. PMID: PMC2746985
9. **Kolliputi N**, Shaik R, and Waxman AB. The Inflammasome Mediates Hyperoxia-Induced Alveolar Cell Permeability. *J. Immunol.* 2010; 184:5819-26. PMID: PMC3780794
10. **Kolliputi N**, Galam L, Parthasarathy PT, Tipparaju SM, Lockey R. NALP3 Inflammasome Silencing Attenuates Ceramide Induced Transepithelial Permeability *J Cell Physiol.* 2011 Dec 14. 227:3310-6. doi: 10.1002/jcp.24026. PMID: 22169929
11. Aljubran SA, Cox R Jr, Tamarapu Parthasarathy P, Kollongod Ramanathan G, Rajanbabu V, Bao H, Mohapatra SM, Lockey R, **Kolliputi N**. Enhancer of Zeste Homolog 2 induces Pulmonary Artery Smooth Muscle Cell Proliferation, *PLoS One.* 2012;7(5):e37712. Epub 2012 May 25. PMID: PMC3360676
12. Prasanna Tamarapu P, Phillips O and **Kolliputi. N** Thioredoxin Catalysis and Inflammasome Regulation: Directions for Future Research. *J Biocatal Biotransformation* 2012, 1:2

13. Tamarapu Parthasarathy P, Galam L, Huynh B, Yunus A, Abuelenen T, Castillo A, Kollongod Ramanathan G, Cox R Jr, **Kolliputi N**. MicroRNA 16 Modulates Epithelial Sodium Channel in Human Alveolar Epithelial Cells. Biochem Biophys Res Commun. 426 (2012) 203–208. PMID: PMC3536022
14. Jalali S, Ramanathan KR, Parthasarathy, TP, Aljubran S, Yunus A, Garcia S, Lockey RF and **Kolliputi N**. Mir-206 Regulate Pulmonary Artery Smooth Muscle Cell Proliferation and Differentiation, PLoS One. 2012;7(10):e46808. doi: 10.1371/journal.pone.0046808. Epub 2012 Oct 10. PMID: PMC3468623
15. Cox RR Jr, Phillips O, **Kolliputi N**. Putting the brakes on acute lung injury: can resolvins suppress acute lung injury? Front Physiol. 2012;3:445. Epub 2012 Nov 29. PMID: PMC3509342
16. Fukumoto J, **Kolliputi N**. Human lung on a chip: innovative approach for understanding disease processes and effective drug testing. Front Pharmacol. 2012;3:205. doi: 10.3389/fphar.2012.00205. PMID: PMC3547231
17. Qazi O, Parthasarathy PT, Lockey R, **Kolliputi N**. Can microRNAs keep inflammasomes in check? Front Genet. 2013;4:30. doi: 10.3389/fgene.2013.00030. Epub 2013 Mar 13 PMID: PMC3595571
18. Lane T, Flam B, Lockey R, **Kolliputi N** TXNIP shuttling: missing link between oxidative stress and inflammasome activation Front Physiol. 2013;4:50. doi: 10.3389/fphys.2013.00050. Epub 2013 Mar 21 PMID: PMC3604629
19. Panguluri SK, Tur J, Fukomoto J, Deng W, Sneed KB, **Kolliputi N**, Bennett ES, Tipparaju SM. Hyperoxia Induced Hypertrophy and Ion Channel Remodeling in Left Ventricle. Am J Physiol Heart Circ Physiol. 2013 Apr 12. [Epub ahead of print] PMID: PMC3680770
20. Fukumoto J, Fukumoto I, Parthasarathy PT, Cox R, Huynh B, Ramanathan GK, Venugopal RB, Allen-Gipson DS, Lockey RF, **Kolliputi N**. NLRP3 Deletion Protects from Hyperoxia-Induced Acute Lung Injury. Am J Physiol Cell Physiol. 2013 May 1. 305:C182-189. PMID: 23636457 [PubMed] PMID: PMC3725631
21. Desai P, Tamarapu Parthasarathy P, Galam L, Lockey R, **Kolliputi N**. A new role for inflammasomes: sensing the disturbances in non-alcoholic fatty liver disease. Front Physiol. 2013 Jul 1;4:156. doi: 10.3389/fphys.2013.00156 PMID: 23847540 [PubMed] PMID: PMC3696836
22. Fukumoto J, Lockey R, **Kolliputi N**. New hope for Nutlin-3a therapy for pulmonary arterial hypertension. Front Pharmacol. 2013 Jul 10;4:87. doi: 10.3389/fphar.2013.00087 PMID: 23847537 [PubMed] PMID: PMC3706748
23. Mehta J, Parthasarathy PT, Lockey R, **Kolliputi N**. New hope for a microRNA therapy for pulmonary arterial hypertension. Front Genet. 2013 Jul 19;4:137. doi: 10.3389/fgene.2013.00137. PMID: PMC3715693
24. Grams D, Lockey R, **Kolliputi N**. Is isoprenylcysteine carboxyl methyltransferase the key to reverse ageing? Front Aging Neurosci. 2013 Aug 14;5:40. doi: 10.3389/fnagi.2013.00040 PMID: PMC3743066
25. Bandyopadhyay S, Lane T, Venugopal R, Parthasarathy PT, Cho Y, Galam L, Lockey R, **Kolliputi N**. MicroRNA-133a-1 regulates inflammasome activation through uncoupling protein-2. Biochem Biophys Res Commun. 2013 Aug 27. 439:407-412. doi:pii: S0006-291X(13)01393-4. 10.1016/j.bbrc.2013.08.056. PMID: PMC3857997
26. Parthasarathy PT, Cho Y, Lockey R, **Kolliputi N**. An old molecule with a new role: microtubules in inflammasome regulation. Cell Biochem Biophys. 2014 Sep;70(1):697-8. doi: 10.1007/s12013-014-9907-6. PMID: 24639113

27. Lagishetty V, Parthasarathy PT, Phillips O, Fukumoto J, Cho Y, Fukumoto I, Bao H, Cox R Jr, Galam L, Lockey RF, **Kolliputi N**. Dysregulation of CLOCK gene expression in hyperoxia-induced lung injury. Am J Physiol Cell Physiol. 2014 Jun 1;306(11):C999-C1007. doi: 10.1152/ajpcell.00064.2013. Epub 2014 Apr 2. PMID: 24696144
28. Saco TV, Parthasarathy PT, Cho Y, Lockey RF, **Kolliputi N**. Role of epigenetics in pulmonary hypertension. Am J Physiol Cell Physiol. 2014 Jun 15;306(12):C1101-5. doi: 10.1152/ajpcell.00314.2013. Epub 2014 Apr 9. PMID: 24717578
29. Saco T, Parthasarathy PT, Cho Y, Lockey RF, **Kolliputi N**. Inflammasome: a new trigger of Alzheimer's disease. Front Aging Neurosci. 2014 May 6;6:80. doi: 10.3389/fnagi.2014.00080. eCollection 2014. PMID: 24834051
30. Saco TV, Parthasarathy PT, Cho Y, Lockey R, **Kolliputi N**. Micro RNAs: The Future of Idiopathic Pulmonary Fibrosis Therapy. Cell Biochem Biophys. 2014 Aug 28. PMID: 25164114
31. Turn CS, **Kolliputi N**. Two Sides of a Coin: The Dual Roles of Chitinase 3-Like 1 in Idiopathic Pulmonary Fibrosis. Lung. 2014 Oct 1. PMID: 25270518
32. Swarnabala S, Gattu M, Perry B, Cho Y, Lockey RF, **Kolliputi N**. ROMO1 links oxidative stress to mitochondrial integrity. J Cell Commun Signal. 2014 Oct 10. PMID: 25301301
33. Cho Y, Swarnabala S, Lockey RF, **Kolliputi N**. EZH2, the moderator in the discussion between methyltransferases at histone H3? J Cell Commun Signal. 2014 Nov 9

Research Support.

Ongoing Research Support

NIH/NHLBI, R01HL105932 02/1/2011-01/31/2016

Role: Principal Investigator

Title: Inflammasomes in hyperoxic acute lung injury

The goals of this project are to determine the role of inflammasome in acute lung injury.

Greater Southeast Affiliate, American Heart Association, 13PRE17070137 07/1/2013-06/30/2015

Role: Mentor

Title: Resolvins: A Novel Therapeutic Approach to Acute Lung Injury (Fellowship - Ruan Cox, Jr.)

The long-term goal of this project is to discover therapeutic approaches to diseases such as acute lung injury, where uncontrolled pro-inflammatory cytokine secretion exacerbates the disease pathology.

Greater Southeast Affiliate, American Heart Association, 14POST18200004 01/1/2014-12/31/2015

Role: Mentor

Title: Atp8b1 Heterozygous Knockout Mice: A Better Model for Pulmonary Fibrosis (Fellowship - Jutaro Fukumoto)

The long-term goal of this project is to elucidate the regulatory signaling mechanisms in idiopathic pulmonary fibrosis (IPF) as a necessary prerequisite to the development of therapeutic agents that will protect from IPF by inhibiting loss of epithelial integrity.

Completed Research Support

American Heart Association 07/1/2009- 06/30/2013

National Scientist Development Grant \$ 77,000/year

Role: Principal Investigator

Title: Adenoviral Gene Transfer of SOCS-1 Ameliorates Hyperoxia Induced Acute Lung Injury

The goals of this project are to determine protective effects of SOCS-1 in hyperoxia-induced acute lung injury.