

CURRICULUM VITAE

Shaik O. Rahaman, PhD

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.

Signature: Shaik O. Rahaman

Date: 11-16-2014

I. PERSONAL INFORMATION

I.A. Contact Information

University of Maryland
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I.B. Academic Appointments at UMD

Assistant Professor (tenure-track), Nutrition and Food Science
August, 2014- present
50% Teaching, 50% Research

I.C. Administrative Appointments at UMD

I.D. Other Employment

2011-2014	Assistant Professor, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, Cleveland Clinic, Cleveland, OH 44195
2004-2011	Research Associate, Department of Cell Biology, Lerner Research Institute, Cleveland Clinic, Cleveland, OH 44195
2000-2004	Post-doctoral Fellow, Department of Cancer Biology, Lerner Research Institute, Cleveland Clinic, Cleveland, OH 44195
1999-2000	Post-doctoral Scientist, Department of Neuroscience, Indian Institute of Chemical Biology, Calcutta 700032

1996-1999 PhD Graduate Student, Department of Biotechnology, Jadavpur University,
Calcutta 700032

I.E. Educational Background

BS	1991	Calcutta University; Physiology, Chemistry and Zoology
MS	1993	Calcutta University; Biophysics, Molecular Biology and Genetics
PhD	1999	Jadavpur University; Molecular Microbiology

II. RESEARCH, SCHOLARLY AND CREATIVE ACTIVITIES

II.A. Articles in Refereed Journals

1. **Rahaman SO***, Grove LM, Paruchuri S, Southern BD, Abraham S, Niese KA, Scheraga RG, Ghosh S, Thodeti CK, Zhang DX, Moran MM, Schilling WP, Tschumperlin DJ, Olman MA*. TRPV4 mediates myofibroblast differentiation and pulmonary fibrosis in mice. *J. Clin Invest*, 2014 Nov 3. pii: 75331. doi: 10.1172/JCI75331. [Impact Factor: 13.8]
(* *Corresponding author*)
2. Grove LM, Southern BD, Jin TH, White KE, Paruchuri S, **Rahaman SO**, Gladson CL, Ding Q, Chapman HA, Olman MA. Urokinase receptor (u-PA) ligation induces a raft-localized integrin signaling switch that mediates the hypermotile phenotype of fibrotic fibroblasts. *J Biol Chem*. 2014, 289(18):12791-804. [Impact Factor: 4.65]
3. **Rahaman SO***, Li W, Silverstein RL*. Vav guanine nucleotide exchange factors regulate atherosclerotic lesion development in mice. *Arterioscler Thromb Vasc Biol*, 2013, 33(9):2053-7. [Impact Factor: 6.3]
(* *Corresponding author*)
4. Ding Q, Cai G, Hu M, Yang Y, Zheng A, Tang Q, Gladson CL, Hayasaka H, Wu H, You Z, Southern BD, Grove LM, **Rahaman SO**, Fang H, Olman MA. FAK-Related Non-Kinase Is a Multifunctional Negative Regulator of Pulmonary Fibrosis. *Am J Pathol*. 2013, 182(5):1572-84. [Impact Factor: 5.2]
5. **Rahaman SO***, Swat W, Febbraio M, Silverstein RL*. Vav family Rho guanine nucleotide exchange factors regulate CD36-mediated macrophage foam cell formation. *J Biol Chem*. 2011, 286(9):7010-7. [Impact Factor: 4.65]
(* *Corresponding author*)
6. Chen K, Li W, Major J, **Rahaman SO**, Febbraio M, Silverstein RL. Vav guanine nucleotide exchange factors link hyperlipidemia and a prothrombotic state. *Blood*. 2011, 117:5744-50. [Impact Factor: 9.8]
7. **Rahaman SO***, Zhou G, Silverstein RL*. Vav GEF regulates CD36-mediated macrophage foam cell formation via calcium and dynamin-dependent processes. *J Biol Chem*. 2011, 286(41):36011-9. [Impact Factor: 4.65]
(* *Corresponding author*)

8. Silverstein RL, Li W, Park YM, **Rahaman SO**. Mechanisms of cell signaling by the scavenger receptor CD36: Implication in atherosclerosis and thrombosis. *Transactions of the American Clinical and Climatological Association*. 2010, 121:206-20. Review article.
9. **Rahaman SO**, Lennon DJ, Febbraio M, Podrez EA, Hazen SL, Silverstein RL. A CD36-dependent signaling cascade is necessary for macrophage foam cell formation. *Cell Metabolism* (cover page), 2006, 4(3):211-221. [Impact Factor: 16.7]
10. **Rahaman SO**, Vogelbaum MA, Haque SJ. Aberrant Stat3 signaling by IL-4 in malignant glioma cells: involvement of IL-13Ralpha2. *Cancer Research*. 2005, 65:2956-63. [Impact Factor: 9.2]
11. Ghosh MK, Sharma P, Harbor PC, **Rahaman SO**, Haque SJ. PI3K-AKT-mTOR signaling pathway negatively controls the EGFR-mediated activation of Stat3 in glioblastoma cells. *Oncogene*. 2005, 24:7290-7300. [Impact Factor: 8.6]
12. **Rahaman SO**, Harbor PC, Chernova O, Barnett GH, Vogelbaum MA, Haque SJ. Inhibition of constitutively active Stat3 suppresses proliferation and induces apoptosis in glioblastoma multiforme cells. *Oncogene*. 2002, 21:8404-8413. [Impact Factor: 8.6]
13. **Rahaman SO**, Sharma P, Harbor PC, Aman MJ, Vogelbaum MA, Haque SJ. IL-13R(alpha)2, a decoy receptor for IL-13 acts as an inhibitor of IL-4-dependent signal transduction in glioblastoma cells. *Cancer Research*. 2002, 62:1103-1109. [Impact Factor: 9.2]
14. **Rahaman SO**, Ghosh S, Mohanakumar KP, Das S, Sarkar PK. Oxidative damage and altered neurofilament gene expression in vivo in hypothyroid rat brain. *Neuroscience Research*. 2001, 40:273-279. [Impact Factor: 2.3]
15. **Rahaman SO**, Ghosh S, Mandal SK, Sarkar PK. Reduced expression and altered distribution of neurofilaments in neurons cultured in thyroid hormone-deficient medium. *NeuroReport*. 2000, 11(12):2717-2722. [Impact Factor: 1.6]
16. Ghosh S, **Rahaman SO**, Sarkar PK. Regulation of neurofilament gene expression by thyroid hormone in the rat brain. *NeuroReport*. 1999, 10(11):2361-2365. [Impact Factor: 1.6]
17. **Rahaman SO**, Mukherjee J, Chakrabarti A, Pal S. Decreased membrane permeability in a polymyxin B-resistant *Escherichia coli* mutant exhibiting multiple resistance to beta-lactams as well as aminoglycosides. *FEMS Microbiol. Lett.* 1998, 161(2):249-254. [Impact Factor: 2.7]

II.B. Published Conference Proceedings

1. **Rahaman SO** et al. TRPV4 Calcium Channel Deficiency Protects Against Pulmonary Fibrosis In Mice And Abrogates Myofibroblast Differentiation. *ATS International Conference in San Diego, CA, 2014*.
2. Lisa M. Grove, **Rahaman SO**, et al. Phosphoinositide 3-Kinase Gamma (PI3K γ) Enhances Transient Receptor Potential Vanilloid 4 (TRPV4) Ion Channel Function And Myofibroblast Differentiation. *ATS International Conference in San Diego, CA, 2014*.

3. Rachel G. Scheraga, Susamma Abraham, **Rahaman SO**, Lisa M. Grove, Brian D. Southern, Kathryn Niese, Mitchell A. Olman. Macrophage Response To Endotoxin Depends On Mechanotransduction Through The TRPV4 Ion Channel. *ATS International Conference in San Diego, CA, 2014.*
4. B.D. Southern, L.M. Grove, **Rahaman SO**, S. Abraham, K. Niese, R.G. Scheraga, M.A. Olman. Myosin II Facilitates Guidance Of Fibroblast Migration In Normal Lung But Not Fibrotic Lung. . *ATS International Conference in San Diego, CA, 2014.*
5. Brian D. Southern, Lisa M. Dominak, **Rahaman SO**, Daniel J. Tschumperlin, Mitchell A. Olman. Consequences of myosin activation in fibroblasts vary in normal versus fibrotic lung. *ATS International Conference in Philadelphia, PA, 2013. A3999.*
6. **Rahaman SO**, S Paruchuri, L. M. Dominak, B. Southern, S. Abraham, K. Niese, S.V. Naga Prasad, W.P. Schilling, D.J. Tschumperlin, M.A. Olman. TRPV4 channel regulates TGFbeta-induced myofibroblast differentiation by activation of PI3K/AKT pathway. *ATS International Conference in Philadelphia, PA. 2013: A3838.*
7. **Rahaman SO**, Paruchuri S, Thodeti CK, Dominak L, Southern BD, Niese K, and Olman MA. TRPV4 channel-dependent Ca²⁺ influx potentiates TGFβ1-induced myofibroblast differentiation. Keystone meeting on “*Fibrosis: Translation of Basic Research to Human Disease and Novel Therapeutics*”, Montana, USA, 2012.
8. **Rahaman SO**, Paruchuri S, Thodeti CK, Dominak L, Southern BD, Niese K, Metzger A, and Olman MA. The TRPV4 channel is a novel regulator of myofibroblast transdifferentiation. *ATS International Conference in San Francisco, USA, 2012.*
9. **Rahaman SO**, Febbraio M, Zhou G, and Silverstein RL. Vav proteins are mechanistically involved in CD36-dependent atherogenic processes. *FASEB research conference, 2010, Los Angeles, USA*
10. **Rahaman SO**, Febbraio M, Silverstein RL. CD36-dependent sensitization results in increased activation of MAPKs and NF-κB by LPS in NO₂LDL pretreated cells. *Annual Institutional Research Day, 2007, Cleveland Clinic, Cleveland, USA.*
11. **Rahaman SO**, Lennon DJ, Febbraio M, Podrez EA, Hazen SL, Silverstein RL. A CD36-dependent signaling cascade is necessary for macrophage foam cell formation. *FASEB research conference, 2006, San Francisco, USA.*
12. **Rahaman SO**, Lennon DJ, Febbraio M, Podrez EA, Hazen SL, Silverstein RL. A CD36-dependent signaling cascade is necessary for macrophage foam cell formation. *Annual Institutional Research Day, 2005, Cleveland Clinic Foundation, Cleveland, USA.*
13. **Rahaman SO**, Lennon DJ, Febbraio M, Podrez EA, Hazen SL, Silverstein RL. CD36-dependent activation of c-jun N-terminal kinase by modified LDL is involved in macrophage foam cell formation. *Gordon Research Conference, 2005, Maine, USA.*
14. **Rahaman SO**, Lennon DJ, Febbraio M, Podrez EA, Hazen SL, Silverstein RL. CD36-dependent activation of c-jun N-terminal kinase by modified LDL is involved in macrophage foam cell formation. *North American Vascular Biology Organization, 2005, Chicago, USA.*

15. **Rahaman SO**, Lennon DJ, Febbraio M, Podrez EA, Hazen SL, Silverstein RL. CD36-dependent activation of c-jun N-terminal kinase by modified LDL is involved in macrophage foam cell formation. *Research ShowCASE, 2005, Cleveland, USA.*
16. Ghosh MK, **Rahaman SO₂** and Haque SJ. AKT attenuates EGFR-dependent DNA-binding activity of Stat3 in glioblastoma multiforme cells. *Society for Neuro-Oncology, 2004, Toronto, Canada.*
17. **Rahaman SO₂**, Vogelbaum MA and Haque SJ. IL-4 potentiates persistent activation of Stat3 in glioblastoma multiforme cells: Cause and consequence. *Society for Neuro-Oncology, November, 2004, Toronto, Canada.*
18. Ghosh MK, **Rahaman SO₂** and Haque SJ. PI3K-AKT-mTOR signaling pathway negatively controls the EGFR-mediated activation of Stat3 in glioblastoma cells. *AACR, 2004, Orlando, USA*
19. **Rahaman SO**, Vogelbaum MA and Haque SJ. Aberrant Stat3 signaling via IL-4R/IL-13R activation in malignant glioma cells: involvement of IL-13R α 2. *AACR, 2004, Orlando, USA*
20. **Rahaman SO** and Haque SJ. Multiple signaling pathways contribute to Stat3 activation in GBM cells: Participation of IL-4R/IL-13R and EGFR. *AACR, 2003, Washington, D.C.*
21. **Rahaman SO**, Harbor PC, Chernova O, Barnett GH, Vogelbaum MA and Haque SJ. Inhibition of constitutively active Stat3 suppresses proliferation and induces apoptosis in glioblastoma multiforme cells. *Cleveland Clinic, Research, 2002, Cleveland, USA.*
22. **Rahaman SO**, Harbor PC, Chernova O, Barnett GH, Vogelbaum MA and Haque SJ. Constitutive activation of Stat3 signaling inhibits apoptosis and promotes proliferation of glioblastoma cells. *Society for Neuro-Oncology, Nov 21-24, 2002, San Diego, USA.*
23. **Rahaman SO**, Sarma P, Harbor PC, Aman MJ, Vogelbaum MA and Haque SJ. IL-13R(alpha)2 is a negative regulator of both IL-4 and IL-13 dependent signal transduction. *ISICR meeting, Oct. 7-11, 2001, Cleveland, OH. USA*
24. **Rahaman SO**, Sharma P, Vogelbaum MA, and Haque SJ. IL-13R(alpha)2, a decoy receptor for IL-13 acts as an inhibitor of IL-4-dependent signal transduction in glioblastoma cells. *World Federation of Neuro-oncology Meeting, 2001, Washington, DC.*

II.C. Conferences, Workshops, and Talks

- Invited talk at ATS International Conference in San Diego, CA, 2014.
- Invited talk at FASEB research conference, San Francisco, CA, 2006.

II.D. Sponsored Research Grants

- Source: American Heart Association
Title: National Center Scientist Development Grant (13SDG17310007)
Amount Awarded: \$308,000/4yrs
Time period: 2013-2017
Role: Principal Investigator

- Source: American Heart Association
Title: GRA Beginning Grant-in-Aid (12BGIA17240022)
Amount Awarded: \$132,000/2yrs (Rescinded)
Time period: 2013-2015
Role: Principal Investigator

III. TEACHING, MENTORING AND ADVISING.

III.A. Courses Taught

III.B. Teaching Innovations

III.B.1. Major Programs Established
III.B.4. Instructional Workshops and Seminars Established
III.B.5. Course or Curriculum Development
III.B.7. Other

III.C. Advising: Research

This refers to students whose projects the faculty has supervised as adviser, committee chair, or committee member (indicate role). The name of student, academic year(s) involved, and the name of institution if other than UMD should be indicated, as well as placement of the student(s), if the project is completed. List completed work first.

III.C.1. Undergraduate
III.C.2. Master's
III.C.3. Doctoral
III.C.4. Post-doctoral
III.C.5. Other Research Directions (*K-12 Interactions*)

III.D. Advising: Other than Research Direction

III.E.1. Undergraduate
III.E.2. Master's
III.E.3. Doctoral
III.E.4. Post-doctoral
III.E.5. Other Advising Activities
(*Include advising student groups, special assignments, recruiting, etc.*)

III.E. Other Teaching Activities

IV. SERVICE AND OUTREACH

IV.A. Editorships, Editorial Boards, and Reviewing Activities

IV.A.1. Reviewing Activities for Journals

- American Journal of Respiratory Cell and Molecular Biology
- Surgical Neurology International
- Journal of Experimental Medicine (invited)
- Journal of Clinical Investigation (invited)
- Cell Metabolism (invited)
- International Journal of Radiation Oncology, Biology, Physics
- Journal of Biological Chemistry (invited)
- Circulation Research (invited)
- Journal of Lipid Research (invited)

IV.A.2. Reviewing Activities for Agencies and Foundations

- Reviewer for American Heart Association

IV.B. Committees, Professional & Campus Service

IV.B.1. Campus Service - Department

IV.B.2. Campus Service – College

- 2014- Judging at AGNR annual poster presentation

IV.B.3. Campus Service - University

- 2014- Judging at Bioscience day annual poster presentation

IV.B.4. Other Non-University Committees, Memberships, Panels, etc.

- Life member of Indian Science Congress
- Member of American Thoracic Association
- Member of American Heart Association

IV.C. External Service and Consulting

IV.C.1. Community Engagements, Local, State, National, International

2013-present- Reviewer for American Heart Association,

V. AWARDS, HONORS AND RECOGNITION

V.1. Research Fellowships, Prizes and Awards

- Selected as early stage reviewer to CSI-NIH, 2014
- National Scientist Development Award by American Heart Association, 2013
- BGIA grant in Aid Award by American Heart Association, 2013
- Reviewer for American Heart Association, 2013
- Elsa Albrecht Award (1st place) by Cleveland Clinic for outstanding publication, 2006
- Travel Award winner from The American Society for Biochemistry and Molecular Biology
- Junior Investigator Award finalist in The North American Vascular Biology meeting, 2006
- Awarded 2nd place in the poster competition in Research Day, 2005, Cleveland Clinic
- 2nd place in the poster competition in Gordon Conference on “atherosclerosis”, 2005
- Awarded Research Fellowship by Government of India for Ph.D. thesis work
- Awarded Scholarship for Bachelor of Science examination by Government of India