

## **MOHAMMAD ZAHID ASHRAF**

*FNA, FASc, FNASc,*

### **PRESENT ADDRESS:**

Professor & Head  
Department of Biotechnology,  
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Wikipedia: [https://en.wikipedia.org/wiki/Mohammad\\_Zahid\\_Ashraf](https://en.wikipedia.org/wiki/Mohammad_Zahid_Ashraf)

### **AREA OF RESEARCH:**

High Altitude Biology, Translational Biology, Thrombosis, Cardiovascular Biology, Genomics, miRNA, Proteomics, Post-translational protein modification.

### **EDUCATION: PH.D. BIOSCIENCES (2001)**

Title: Endothelial dysfunction during experimentally induced atherosclerosis in animals". Department of Biosciences, Jamia Millia Islamia, New Delhi 110025 and Department of Physiology, Vallabhbhai Patel Chest Institute, University of Delhi, Delhi 110 007 INDIA

### **M.SC. BIOSCIENCES (1996)**

Department of Biosciences, Jamia Millia Islamia, New Delhi 110025 INDIA

### **B.SC. BIOSCIENCES (1994)**

Department of Biosciences, Jamia Millia Islamia, New Delhi

### **POST DOCTORAL TRAINING /EXPERIENCE:**

**Research Fellow**, Department of Molecular Cardiology, Lerner Research Institute of Cleveland Clinic, USA

**Post-doctoral Research Fellow**, Department of Cell Biology, Lerner Research Institute of Cleveland Clinic, USA

### **PROFESSIONAL AND RESEARCH APPOINTMENTS/POSITIONS:**

April 2017---	<b>Professor</b> , Dept of Biotechnology, JMI, New Delhi
2014 --- March 2017	<b>Scientist –E</b> , Head, Genomics Div., DIPAS, Delhi
2009 --- 2014	<b>Scientist –D</b> , Genomics Div., DIPAS, Delhi

### **AWARDS:**

1. **Visitors (Presidents) Awards for Research (Biological Sciences) 2021**, President of India
2. **Jamia Award of Research Excellence 2021**, Vice Chancellor Jamia Millia Islamia
3. **Ramachandran National Bioscience Award**, Department of Biotechnology, 2018
4. **Basanti Devi Amir Chand Award**, Indian Council of Medical Research, 2018
5. **PA Kurup Oration**, Indian Society for Atherosclerosis Research, 2014
6. **Surg. Rear Admiral M. S. Malhotra Awards**, , DRDO, 2014
7. **Innovations Award, Cleveland Clinic Foundation, USA**, 2008

### **HONORS:**

1. **Fellow**, Indian National Sciences Academy, Delhi
2. **Fellow**, National Academy of Sciences, Allahabad
3. **Fellow**, Indian Academy of Science, Bangalore
4. **Member**, Guha Research Conference
5. **Member**, National Academy of Medical Sciences

## OTHER ASSIGNMENTS/RECOGNITIONS:

- **Member**, CSIR-IGIB, Research Evaluation Committee
- **Member**, DST, committee for INSPIRE faculty selection.
- **Member**, ICMR Expert committee on Centre for Hemoglobinopathies.
- **Member**, NAMS Task Force on Venous Thrombosis (2020)
- **Member**, DBT , committee on Conference, Travel, Exhibition and Popular Lectures (CTEP)
- **Member**, DBT, Biotechnology Career Advancement & Re-orientation Programme (BioCARE)
- **Member**, ICMR Task Force on venous Thromboembolism (2020-)
- **Member**, Panel of Fats and Oil, FSSAI, Govt of India
- **National coordinator**, SPARC- India-Portugal collaborations, MHRD
- **Member**, Pharmacopeia Commission, Govt of India (2020-2023)
- **Member**, Research Council, University of Kashmir, J&K (2019-)
- **Member**, Board of studies, Department of Zoology, AMU

## ADMINISTRATIVE ASSIGNMENTS INSIDE UNIVERSITY

1. **Director (Academics)**, JMI, New Delhi (2018-)
2. **Chairman**, Animal House Facility, JMI, New Delhi (2018-)
3. **Chairman**, Patent & IPR Committee, JMI, New Delhi (2022-)
4. **Chairman**, Article Processing Committee, JMI, New Delhi (2018-)
5. **Institutional Coordinator**, MHRD-SPARC. (2019-)
6. **Coordinator**, DST-FIST Program, Department of Biotechnology, JMI,
7. **Member**, Board of Studies, Department of Biosciences, JMI, New Delhi (2019-)
8. **Member**, Board of Studies, Department of Geography, JMI, New Delhi (2019-)

## TECHNOLOGIES DEVELOPED/TRANSFERRED:

### Ongoing Clinical Trials:

1. Clinical Trials Registry - India **REF/2020/07/035484 AU**, Flowcytometric analysis of oral microbiome in orthodontic patients with Obstructive Sleep Apnea risk: A longitudinal case-control comparative pilot study (2020-)
2. Clinical Trials Registry - India **REF/2019/08/027916 N**, Evaluation of efficacy of Sharbat Ahmad Shahi in treatment of Mild to Moderate cases of Depression (2019-)

## PATENTS & TECHNOLOGIES DEVELOPED

### Patents

1. A Novel Approach to Cardiovascular Disease Treatment and Diagnosis. US and world Patent Pending: Filed with Cleveland Clinic Innovations in Cardiovascular Medicine.
2. A Method of Risk Assessment of Clot Formation (733/DEL/2014)
3. Specific Small Single Stranded RNA Molecules With Antithrombotic Properties And Uses Thereof (1398/DEL/2015)

## DEVELOPMENT OF PLATFORM/TECHNOLOGY/INFRASTRUCTURE:

1. Development of Machine learning based platform for analyzing pharmacogenomics of STATIN treatment.
2. Development of a field laboratory for High Altitude Research at Leh, Ladakh
3. Designing and Fabrication of Calpain based Biosensor for Risk Assessment of Clot Formation (733/DEL/2014)

4. Production of nanoparticle based delivery system for Specific Small Single Stranded RNA Molecules with Antithrombotic Properties (1398/DEL/2015):

## RESEARCH ACTIVITIES:

### *Ongoing projects:*

1. Investigating the role of Hypoxia Inducible Factors-1 $\alpha$  (HIF-1 $\alpha$ ) and NLRP3 Inflammasome axis in Pre-Eclampsia during Pregnancy. PI, National Bioscience Award-Grant, Department of Biotechnology, 2019-22. **15 Lakh- Principal Investigator**
2. Effect of Hypoxia on tissue factor mediated coagulation pathway and their function in hypoxia induced thromboembolism. PI in collaboration with National University Singapore, SPARC-MHRD, 2018-20. **57 Lakh- Principal Investigator**
3. Determination of antithrombotic potential of traditionally used unani formulations, PI, AYUSH, Govt of India, PI, 2018-2021. **58 lakhs- Principal Investigator**
4. Role of Poly(ADP-ribose) Polymerase-1 (PARP1) in Hypoxia-induced Thrombosis, PI in collaboration with Laval University, Canada, Shastri Institutional Indo-Canadian Collaborative Research Grant, 2018-2021. **10 Lakh- Principal Investigator**
5. Vitamin D level at HA is Attributable to Higher Incidence of Thrombosis at High Altitude and the Role of NLRP3 inflammasome, PI, Department of Biotechnology, 2019-2022. **60 lakhs- Principal Investigator**
6. The LONG NONCODING RNA (lncrna) Landscape of hypoxia induced thrombosis, PI, Science and Engineering research board, 2019-2022. **55 Lakhs-Principal Investigator**
7. Search for novel anti-platelet and anti-thrombin peptides from Indian viper venom (*Daboia russelii*): Purification, characterization and evaluation of its anti-thrombotic potential Co-PI, North Eastern Region- Biotechnology Programme, sanctioned, 2018-21 **64 lakhs Co- Investigator**
8. Characterizing Milk Colostrum of Ladakhi Cows and Yak for Identification of Biomolecules with Therapeutic Potential” Department of Science and Technology (DST)- **151-lakhs-Co-Investigator**

### *Completed projects:*

1. Identification of Biomarkers for High Altitude Induced Thromboembolic Disorders and screening of Natural Compounds for Antithrombotic Potential. Ministry of Defence, Govt. of India, 2015-2018, **532 Lakh, Principal Investigator**
2. High Altitude induced thromboembolic disorders. Ministry of Defence, Govt. of India, 2010-2015, **493 Lakh, Principal Investigator**
3. Platelet proteomic analysis in animals exposed to high altitude simulated conditions. Ministry of Defence, Govt. of India, 2009-2010, **10 Lakh, Principal Investigator**

## ADDITIONAL RECOGNITIONS

1. Selected among **Icons of India** by India Today Group publications.
2. Invited Judge (2008) for Basic Science Poster Competitions of the American Heart Association’s Scientific Sessions New Orleans.
3. Research Investigator (2007) Center for Stem Cell and Regenerative Medicine, National Center for Regenerative Medicine group, Case Western Reserve University and Cleveland Clinic Foundation.
4. Investigator (2008), Vascular Biology Working Group, sponsored by University of Florida College of Medicine.

5. External Review, Distinguished Scientists Selection committee-2008, American Heart Association

#### ***Awards received by Research Scholars/Post-Doctoral Fellows***

1. **Dr Aastha Mishra (DST-INSPIRE faculty working in our group)**  
SERB woman excellence award 2019.  
Young Investigator Award- International Society for Mountain Medicine 2018  
INSA Young Scientist award 2016
2. **Dr Neha Gupta (PhD student)**  
SERB woman excellence award 2019  
INSA Young Scientist award 2018  
DST-INSPIRE Faculty 2017
3. **Aatira Vijay (PhD student)**  
Early Career Investigator Award-American Heart Association 2019, Scientific Sessions in Philadelphia, Pennsylvania on November 16-18, 2019.
4. **Prabhash Kumar Jha ((PhD student)**  
2019 Paul Dudley White International Scholar Award- American Heart Association, Basic Cardiovascular Science Scientific Sessions 2019, Boston, Massachusetts, July 29, 2019
5. **Swati Sharma (PhD student)** 2019 Young Investigator Award, Indian Society for Atherosclerosis Research

#### **MEMBERSHIP AND ACTIVITY IN SCIENTIFIC AND PROFESSIONAL SOCIETIES:**

1. **Invited Member** Pulmonary Vascular Research Institute, UK
2. **Executive Council**, Indian Society for Atherosclerosis Research
3. **Life Member**, Society for Biological Chemistry
4. **Life Member**, Indian Society for Atherosclerosis Research
5. **Life Member**, International Atherosclerotic Society
6. **Life Member**, International Society for Heart Research (India Chapter)
7. **Life Member**, International Academy of Cardiovascular Sciences
8. **Life Member**, Indian Society for Hematology & Transfusion Medicine
9. **Member**, Society for Vascular Medicine and Biology
10. **Member**, North American Vascular Biology Organization
11. **Member**, American Heart Association (2003-2009)

#### **INTERNATIONAL COLLABORATIONS:**

1. **Prof. Girish M Shah, Laval University, Canada.** Role of Poly(ADP-ribose) Polymerase-1 (PARP1) in Hypoxia-induced Thrombosis. Shastri Institutional Indo-Canadian Collaborative Research Grant.
2. **Dr Manavendra Singh, National University Singapore.** Effect of Hypoxia on tissue factor mediated coagulation pathway and their function in hypoxia induced thromboembolism. SPARC-MHRD.

#### **SCIENTIFIC ACTIVITIES:**

##### **Editorial /Reviewer for Scientific Journals:**

1. Blood
2. Blood Advances
3. Thrombosis & Hemostasis
4. International Journal of Hematology Research
5. Frontiers in Chemical Sciences
6. Journal Of Thrombosis & Haemostasis
7. Thrombosis Research

8. High Altitude Medicine & Biology
9. Scientific Reports
10. American Journal of Hypertension
11. Journal of Hypertension
12. PLoS ONE
13. International Journal of Biochemistry & Cell Biology
14. Pharmaceutical Biology
15. Human Toxicology
16. Microbes & Infection

#### LIST OF RESEARCH PUBLICATIONS (*SELECTED*):

1. Aberrant promoter hypermethylation regulates thrombomodulin in high altitude induced deep vein thrombosis. Vijay A, Jha PK, Parveen S, Goel S, Prabhakar A, Sharma S, Kumar B, Chatterjee T, Bajaj N, Nair V, Sharma M, **Ashraf MZ**. *Thromb Res*. 2022 Jul;215:5-13.
2. Sadia K, **Ashraf MZ**, Mishra A. Therapeutic Role of Sirtuins Targeting Unfolded Protein Response, Coagulation, and Inflammation in Hypoxia-Induced Thrombosis. *Front Physiol*. 2021 Nov 5;12:733453.
3. Jha PK, Vijay A, Prabhakar A, Chatterjee T, Nair V, Bajaj N, Kumar B, Sharma M, **Ashraf MZ**. Transcriptome Profiling Reveals the Endogenous Sponging Role of LINC00659 and UST-AS1 in High-Altitude Induced Thrombosis. *Thromb Haemost*. 2021 Nov;121(11):1497-1511.
4. Masih D, Tripathi JK, Rakhra G, Vats A, Verma SK, Jha PK, Sharma M, **Ashraf MZ**, Singh SN. Deciphering Biochemical and Molecular Signatures Associated with Obesity in Context of Metabolic Health. *Genes (Basel)*. 2021 Feb 19;12(2):290. doi: 10.3390/genes12020290.
5. Mishra A, **Ashraf MZ**. Response: Comment and Update on "Using Artificial Intelligence to Manage Thrombosis Research, Diagnosis, and Clinical Management". *Semin Thromb Hemost*. 2021 Feb;47(1):115-116.
6. Aastha Mishra, Shankar Chanchal, Mohammad Z. Ashraf, Host–Viral Interactions Revealed among Shared Transcriptomics Signatures of ARDS and Thrombosis: A Clue into COVID-19 Pathogenesis. *Thrombosis & Homeostasis Open* 2020; 4: e403–e412.
7. Comment and Update on “Using Artificial Intelligence to Manage Thrombosis Research, Diagnosis, and Clinical Management” *Seminars in Thrombosis Hemostasis* 2020;00:1–1.
8. Chanchal S, Mishra A, Singh MK, **Ashraf MZ**, Understanding Inflammatory Responses in the Manifestation of Prothrombotic Phenotypes. *Front Cell Dev Biol*. 2020 Feb 14;8:73
9. Sharma S, Mishra A, **Ashraf MZ**. Involvement of Epigenetic Control and Non-coding RNAs in Cardiovascular System. *Adv Exp Med Biol*. 2020;1229:121-132. IF-2.2
10. Rakhra G, Masih D, Vats A, Vijay A, **Ashraf MZ**, Singh SN. Study of Metal-Metal Interactions and Their Biomarkers Using an Intestinal Human Cell Line. *Biol Trace Elem Res*. 2020 May;195(1):95-104. doi: 10.1007/s12011-019-01831-2.

11. Detao Gao, **Mohammad Z. Ashraf**, Lifang Zhang, Niladri S. Kar, Tatiana V. Byzova and Eugene A. Podrez, Cross-linking modifications of HDL apoproteins by oxidized phospholipids: Structural characterization, *in vivo* detection, and functional implications *Journal of Biological Chemistry*, 2020doi: 10.1074/jbc.RA119.008445
12. Prabhakar A, Chatterjee T, Bajaj N, Tyagi T, Sahu A, Gupta N, Kumari B, Nair V, Kumar B, **Ashraf MZ**. Venous thrombosis at altitude presents with distinct biochemical profiles: a comparative study from the Himalayas to the plains. *Blood Advances*. 2019 Nov 26;3(22):3713-3723.
13. Shankar Chanchal, Aastha Mishra and **Mohammad Zahid Ashraf**. Understanding inflammatory responses in the manifestation of prothrombotic phenotypes. *Frontiers in Cell and Developmental Biology*. 14 February 2020; <https://doi.org/10.3389/fcell.2020.00073>
14. **Mohammad S**, Mishra A, Ashraf MZ. Emerging Role of Vitamin D and its Associated Molecules in Pathways Related to Pathogenesis of Thrombosis. *Biomolecules*. 2019 Oct 24;9(11). pii: E649.
15. Mishra A, **Ashraf MZ**. Using Artificial Intelligence to Manage Thrombosis Research, Diagnosis, and Clinical Management. *Semin Thromb Hemost*. 2019 Sep 28. doi: 10.1055/s-0039-1697949.
16. Rakhra G, Masih D, Vats A, Vijay A, **Ashraf MZ**, Singh SN. Study of Metal-Metal Interactions and Their Biomarkers Using an Intestinal Human Cell Line. *Biol Trace Elem Res*. 2019 Aug 31. doi: 10.1007/s12011-019-01831-2
17. Vijay A, Garg I, **Ashraf MZ**. Perspective: DNA Copy Number Variations in Cardiovascular Diseases. *Epigenet Insights*. 2018 Dec 12;11:2516865718818839.
1. Jha, P. K., A. Sahu, A. Prabhakar, T. Tyagi, T. Chatterjee, P. Arvind, J. Nair, **Mohammad Zahid Ashraf**. "Genome-Wide Expression Analysis Suggests Hypoxia-Triggered Hyper-Coagulation Leading to Venous Thrombosis at High Altitude." *Thromb Haemost* 2018; 118, no. 7: 1279-95.
2. Brij Bhushan, A. Prabhakar, A. P. Yadav, M. Z. Ashraf S. B. Singh, L. Ganju, Activation of platelets and inflammatory cytokines in male participants of an Indian Antarctic expedition, *Polar Science*, 2019, (19), 146-150
3. Aatira Vijay, Prabhakar Kumar Jha, Iti Garg, Manish Sharma, **Mohammad Zahid Ashraf** and Bhuvnesh Kumar. micro-RNAs dependent regulation of DNMT and HIF1a gene expression in thrombotic disorders. *Scientific Reports* 2019;20;9(1):4815
4. Anita Sahu, Prabhakar Kumar Jha, Prabhakar A, Chatterjee T, Tyagi T, Kumari B, Khan N, Nair V, **Ashraf MZ**, MicroRNA-145 impedes thrombus formation via targeting tissue factor in venous thrombosis- *EBioMedicine*. 2017 Dec;26:175-186.
5. Ahmad I, Sharma S, Gupta N, Rashid Q, Abid M, **Ashraf MZ**, Jairajpuri MA. Antithrombotic potential of esculin 7, -O-pentasulfate (EPS) for its role in thrombus reduction using rat thrombosis model. *International Journal of Biology of Macromolecules*. 2018;119:360-368. ISSN: 0141-8130
6. Lake Louise AMS Score Consensus Committee, Eric Achatz, Edi Albert, Jon S. Andrews, James D. Anholm, **Mohammad Zahid Ashraf**, Paul Auerbach, Buddha Basnyat, Beth A. .... The 2018 Lake Louise Acute Mountain Sickness Score. *High Altitude Medicine Biology* 2018 Mar;19(1):4-6.
7. Gupta N, Sahu A, Prabhakar A, Chatterjee T, Tyagi T, Kumari B, Khan N, Nair V, Bajaj N, Sharma M, Ashraf MZ. Activation of NLRP3 inflammasome complex potentiates venous thrombosis in response to hypoxia. *Proceedings of National Academy of Sciences – USA* 2017: 114(18):4763-4768.
8. Yanamandra U, Singh SP, Yanamandra S, Mulajkar D, Grewal RS, Singh S, **Ashraf MZ**, Reddy P, Nair V. Endothelial markers in high altitude induced systemic hypertension (HASH) at moderate high altitude. *Med J Armed Forces India*. (2017) 73(4):363-369.
9. Jha PK, Vijay A, Sahu A, **Ashraf MZ**. Comprehensive Gene expression meta-analysis and integrated bioinformatic approaches reveal shared signatures between thrombosis and myeloproliferative disorders. *Scientific Reports* 2016 Nov 28;6:37099. doi: 10.1038/srep37099.
10. Sharma S, Garg I, **Ashraf MZ**., TLR signalling and association of TLR polymorphism with cardiovascular diseases. *Vascul Pharmacol*. 2016 Dec;87:30-37.
11. Kumari B, Prabhakar A, Sahu A, Chatterjee T, Tyagi T, Gupta N, Nair V, **Ashraf MZ**. Endothelin-1 Gene Polymorphism and Its Level Predict the Risk of Venous Thromboembolism in Male Indian Population. *Clin Appl Thromb Hemost*. 2016 Aug 1
12. **Ashraf MZ**. Hypertension at high altitude: the interplay between genetic and biochemical factors in the setting of oxidative stress. *Hypertension Research*. 2016 Apr;39(4):199-200.
13. Neha Gupta, Manish Sharma, Tathagata Chatterjee, Tarun Tyagi, Anita Sahu1, Amit Prabhakar, **Mohammad Zahid Ashraf**. Activation of NLRP3 Inflammasome Complex Regulates the Onset of Hypoxia Induced Thrombosis, *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2015; 35, A605

14. Tarun Tyagi, Amit Prabhakar, Shantanu Sengupta and **Mohammad Z Ashraf**. A Novel Role of Protein Disulfide Isomerase in Calpain Regulated Hypoxia Induced Prothrombotic Phenotype, 2014; *Blood*: 124 (21)
15. Kumari B, Srivastava S, Chatterjee T, Vardhan R, Tyagi T, Gupta N, Sahu A, Chandra K, **Ashraf MZ**. Study of associated genetic variants in Indian subjects reveals the basis of ethnicity related differences in susceptibility to venous thromboembolism. *Thrombosis*., 182762. Epub 2014 Sep 30. 2014
16. Qudsia Rashid, Mohammad Abid, Neha Gupta, Tarun Tyagi, **M. Zahid Ashraf**, M. Aman Jairajpuri, Polysulfated Trehalose as a Novel Anticoagulant Agent with Dual Mode of Action, *BioMed Research International ID 630482*, Epub 28 August 2014
17. Tarun Tyagi, Shadab Ahmad, Neha Gupta, Yasmin Ahmad, Shantanu Sengupta, **M. Zahid Ashraf** Altered expression of platelet proteins mediate hypoxia induced prothrombotic phenotype: Calpain playing a major role? *Blood*, 20;123(8):1250-60. 2014.
18. Chatterjee T, Gupta N, Choudhry VP, Behari M, Saxena R, **Ashraf MZ**. Prediction of ischemic stroke in young Indians: is thrombophilia profiling a way out? *Blood Coagulation & Fibrinolysis*. 24(4):449-53. 2013
19. **Ashraf MZ**, Anita Sahu, Implication of scavenger receptors in atherothrombotic disorders. *Biomolecular Concepts*, Volume 3, Issue 4, Pages 371–380, 2012 *Cover page article*
20. Gupta N. **Ashraf MZ**, Exposure to High Altitude: A Risk Factor for Venous Thromboembolism? *Seminars in Thrombosis and Hemostasis*; 38(2):156-63. 2012,
21. Swati Srivastava<sup>1\*</sup>, Shuchi Bhagi<sup>1</sup>, Babita Kumari<sup>1</sup>, Khem Chandra<sup>1</sup>, Soma Sarkar<sup>2</sup>, **Mohammad Z. Ashraf** Association of polymorphism in angiotensin and aldosterone synthase genes of renin-angiotensin-aldosterone (RAAS) system with HAPE. *J Renin Angiotensin Aldosterone Syst*. Mar; 13(1):155-60. 2012
22. **Ashraf MZ**, Gupta N., Scavenger Receptors: Implications in Atherothrombotic Disorders. *International Journal of Biochemistry & Cell Biology*. 43(5):697-700. 2011
23. Yi Ma, **Mohammad Z. Ashraf**, and Eugene A. Podrez Scavenger receptor BI plays a dual role in platelet reactivity and thrombosis, *Blood*. 16;116(11):1932-41. 2010
24. Jianzhong Shen, Unni M. Chandrasekharan, **Mohammad Z. Ashraf**, Eric Long, Richard E. Morton, Yusen Liu, Jonathan D. Smith, Paul E. DiCorleto, Lack of MAP Kinase Phosphatase-1 Protects ApoE-null Mice against Atherosclerosis. *Circulation Research*. 19;106(5):902-10. 2010
25. **Mohammad Z. Ashraf\***, Detao Gao\*, De Lin, Lawrence M. Sayre, Eugene A. Podrez. Structural basis for the recognition of oxidized phospholipids in oxidized low density lipoproteins by class B scavenger receptors CD36 and SR-BI. \* equal contribution, *Journal of Biological Chemistry* 12;285(7):4447-54. 2010
26. **Mohammad Z. Ashraf**, Niladri S. Kar, Eugene A. Podrez. Oxidized phospholipids: Biomarker for cardiovascular diseases, *International Journal of Biochemistry & Cell Biology*, 41(6):1241-4. 2009
27. **Mohammad Z. Ashraf**, Niladri Kar, Robert G. Salomon, Maria Febbraio and Eugene A. Podrez Specific Oxidized Phospholipids Inhibit Scavenger Receptor BI SR-BI Mediated Specific Uptake of Cholesteryl Esters, *Journal of Biological Chemistry*. 18;283(16):10408-14, 2008
28. Niladri S. Kar, **Mohammad Z Ashraf**, Manojkumar Valiyaveetil and Eugene A. Podrez Mapping and Characterization of Oxidized Low-Density Lipoprotein and OxPC<sub>CD36</sub> Binding Site of Scavenging Receptor CD36, *Journal of Biological Chemistry*. 28;283(13):8765-71, 2008
29. Valiyaveetil M, **Ashraf MZ\***, Kar N\*, Byzova TV, Febbraio M, Podrez EA. Oxidized high-density lipoprotein inhibits platelet activation and aggregation via scavenger receptor BI. *Blood*. 15;111(4):1962-71. 2008 \* equal contribution
30. Bandyopadhyay S, **Ashraf MZ**, Daher P, Howe PH, DiCorleto PE. HOXA9 participates in the transcriptional activation of E-selectin in endothelial cells. *Molecular and Cellular Biology*, 27(12): 4207-4216, 2007.
31. **Ashraf MZ**, Hussain ME, Fahim M, Antiatherosclerotic effects of dietary supplementations of garlic and turmeric: restoration of endothelial function in rats. *Life Sciences*, 77: 837-857, 2005.
32. **Ashraf M. Z.**, Hussain M.E. and Fahim M., Endothelium mediated vasorelaxant effect of garlic in isolated rat aorta: Role of nitric oxide. *Journal of Ethnopharmacology* 90(1):5-9, 2004.

### **Book Chapters**

- Swati Sharma, Shankar Chanchal, Yasir Khan and **Zahid Ashraf** , Post-Transcriptional Gene Regulation in Human Disease, “Noncoding RNAs as modulators of post-transcriptional changes and their role in CVDs Volume 32 Academic Press, ISBN: 978-0-323-91305-8
- Swati Sharma, Aastha Mishra, **M. Zahid Ashraf**, Involvement of Epigenetic Control and Non-coding RNAs in Cardiovascular System, **Book title** “Non-coding RNAs in Cardiovascular Diseases”. Adv Exp Med Biol. 2020;1229:121-132. Published by Springer Nature

- Neha Gupta, **Mohammad Zahid Ashraf**. Hypoxia Signalling in Cardiovascular Diseases, “Hypoxia Signalling in Cardiovascular Diseases, Hypoxia and Anoxia”. DOI:10.5772/intechopen.80456. by Intech-International Publication Group, 2018.
- Swati Srivastava, **Ashraf MZ**, Oxidized Phospholipids: Introduction & Biological Significance” in the forthcoming book “LIPOPROTEIN” ISBN 980-953-307-145-4 by Intech-International Publication Group, 2012

#### **LIST OF INVITED TALKS (*SELECTED*)**

1. Thrombosis at Altitude: A new perspective. National Seminar on Genetics of Complex Diseases, Guru Nanak Dev University; Amritsar Punjab, 29 March, 2019.
2. Deconstructing Thrombosis at Altitudes: A Translational Story. International Conference on Advances in Zoological Research 9 -10 th March, 2019, Department of Zoology, A.M.U., Aligarh.
3. Chair- Session XVI, International Conference on Advanced Materials scheduled March 6 - 7, 2019 at Jamia Millia Islamia (Central University) New Delhi-India.
4. Chairman -session on Unani Medicine for Public Health” at National Conference on Unani Medicine, Central Council for Research in Unani Medicine (CCRUM), on 11 th & 12 th February 2019, Vigyan Bhawan, New Delhi
5. Micro-RNA Based Therapy: Opportunities & Challenges, 7 th International Conference on Current Trends in Drug Discovery Research (CTDDR-2019) organized from 20th to 23rd February 2019 at CSIR-Central Drug Research Institute, Lucknow, India.
6. Deconstructing thrombosis at altitudes: Hypoxia Research: Current Progress and Future Scope, 25th Jan 2019 Centre for Medical Education & Technology (CMET), AIIMS, New Delhi
7. Pathogenesis of thrombosis at altitudes. National conference on “Chemistry for Human Health and Environment” (CHHE-2018) 15-16 December, 2018 at Conference Centre, University of Delhi,
8. Promises and Challenges of microRNA-based Therapy, Faculty Development program, Shyam Lal College, Delhi University, 10th Dec- 16th Dec 2018. JNU-Deconstructing thrombosis at altitudes: An Indian translational story. 23 rd Refresher Course in Life Sciences & Biotechnology beginning from 8th October - 2nd November, 2018 at the UGC-HRDC, JNU.
9. The Science behind Color, Pearl Academy, NOIDA, October 2018.
10. DU-Deconstructing thrombosis at altitudes: An Indian translational story, Refresher Course, Department of Botany, University of Delhi, 24 July, 2018.
11. Mirnas: A Novel Therapeutic Diagnostic Tool Against Cardiovascular Diseases, Faculty Development Program On Genomics; Human Health (July 2– 7, 2018) Organized By Department Of Biotechnology, Jaypee Institute Of Information Technology, Sector-62, NOIDA.
12. The NLRP3 Inflammasome: A sensor for Vascular Perturbance? 11 th Symposium, ‘Frontiers in Biomedical Research’. This year, the symposium will be held from February 19 th to 21 st , 2018 , University of Delhi, Delhi-7.
13. AMU-Protein Biomarker: A Translational Research Success Story I am happy to bring to your kind notice that the UGC human resource development centre (HRDC), Aligarh Muslim University, Aligarh is organizing a Subject Refresher Course in Food and Biotechnology for Teachers in the Faculty of Science/Life Sciences/ Medicine/Biology and Allied Sciences from 31 January 2018 to 20 February 2018.
14. The NLRP3 Inflammasome, A Sensor for Vascular Perturbance? 11th symposium, ‘Frontiers in Biomedical Research, Ambedkar Centre for Biomedical Research, University of Delhi, 19-21 Feb, 2018
15. MicroRNAs in Cardiovascular System: From Physiology to Pathology, VII Congress of Federation of Indian Physiological Societies (FIPS) & XXIX Annual Conference of Physiological Society of India (PSI), Defence Institute of Physiology & Allied Sciences, DRDO, Delhi, India, 5<sup>th</sup>- 7th November 2017
16. The NLRP3 inflammasome: implications in the pathophysiology of vascular diseases: Molecular Medicines for Lifestyle Diseases: Emerging Targets and Approaches" CSIR-Central Drug Research Institute, Lucknow, UP-India November 20-21, 2017



17. miRNA: A novel therapeutic & diagnostic tool. Annual meeting Society for Biochemical Sciences, Jawaharlal Nehru University, New Delhi. 17 Nov, 2017.
18. Inflammasome : A new paradigm in Cardiovascular Diseases, International Conference on Recent Advances in Cardiovascular Research: Impact on Health and Disease VP Chest Instt, Univ. of Delhi, Delhi 10 Feb, 2017
19. MicroRNA Therapeutics: An Emerging Concept, National Seminar on Recent Advances in nvironmental Toxicology, Dept of Biosciences, JMI, Delhi, 13 Feb, 2017
20. MicroRNAs: A promising option against Cardiovascular Diseases. Annual Conf. Of International Society for Heart Research, IIT Madras, Chennai , 23 Jan, 2016
21. MicroRNAs: A Novel Therapeutic & Diagnostic Tool against Cardiovascular Diseases. Annual Conf – ACBICON, PGIMER, Chandigarh, Nov. 30, 2015
22. Inflammasome Complex Regulates the onset of Hypoxia Induced Thrombosis” 28<sup>th</sup> Annual Conference of Indian Society for Atherosclerosis Research, 30th, October 2015, Hamdard Institute of Medical Sciences & Research, Delhi.
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