

## **BIOGRAPHICAL**

**Name:** Rais A. Ansari  
**Marital Status:** Married  
**Citizenship:** US Citizen.  
**Office:** Department of Pharmaceutical Sciences  
College of Pharmacy  
Health Professions Division  
Terry Building, Rm 1344  
Nova Southeastern University  
3200 S University Drive  
Fort Lauderdale, FL 33328  
Office: (954)-262-1342  
Lab: (954)-262-3316

**Email:** [ra557@nova.edu](mailto:ra557@nova.edu) and [ansarirais663@gmail.com](mailto:ansarirais663@gmail.com)

## **EDUCATION and TRAINING**

<i>Dates Attended</i>	<i>Name &amp; Location Of Institution</i>	<i>Degree Received and Year</i>	<i>Major Subject(s)</i>
1974-76	Lucknow University Lucknow, India	B.S. (1976)	Botany Zoology Chemistry
1976-78	Lucknow University Lucknow, India	M.S. (1978)	Biochemistry
1980-85	Kanpur University Kanpur, India	Ph.D. (1985)	Chemistry

## **APPOINTMENTS and POSITIONS**

July 2017 –Contd. Associate Professor  
Department of Pharmaceutical Sciences  
College of Pharmacy, Health Professions Division  
Nova Southeastern University  
Fort Lauderdale, FL 33328

2012-Contd. Affiliated Assistant/Associate Professor,  
Halmos College of Natural Sciences and Oceanography  
Fort Lauderdale, FL 33328

June 09 – June 2017. Assistant Professor  
 Department of Pharmaceutical Sciences  
 College of Pharmacy, Health Professions Division  
 Nova Southeastern University  
 Fort Lauderdale, FL 33328

Jan 2006 - May 09 Adjunct Professor  
 Kent State University, Cuyahoga Community College, Lorain  
 County Community College, Ursuline College and Baldwin-  
 Wallace College

Dec. 2000 - July 04 Research Assistant Professor  
 University of Arkansas for Medical Sciences, Little Rock &  
 New York Medical College, Valhalla, NY

Feb 89 - Sept 2000 Research Associate/Senior Research Associate  
 & Oct 2004 - Jan.06 University of Nebraska Medical Center, Omaha, NE  
 University of Pittsburgh, Pittsburgh, PA and Case Western  
 Reserve University, Cleveland, OH

March 1986-89 Group Leader/Research Associate  
 Department of Pharmacology  
 Central Drug Research Institute  
 Lucknow-226001, U.P., India

Jan.1984-86 Senior Research Fellow

Jan. 1980-83 Ph.D. Student  
 Junior Research Fellow  
 Industrial Toxicology Research Center  
 P.O. Box-80, Lucknow-226001, U.P., India

### **TEACHING EXPERIENCE:**

#### ***Undergraduate:***

**1-Biological Chemistry:** Bio-1100: Cuyahoga Community College

**2-Organic Chemistry:** Chem-10031: Kent State University, CHM-252L: Baldwin-  
 Wallace College

**3-Advanced Chemistry:** Organic Chemistry (Chem-162): Lorain Community College

**4-Microbiology** (Biol-2500: Cuyahoga Community College, Bio-251: Lorain  
 Community College, Bio-231-Clinical Microbiology: Ursuline College

#### ***Postgraduate:***

##### **Pharm D Courses:**

- 1- Biochemical Basis of Drug Therapy (PHRC 4280): Developed and coordinated from 2018 and 2019. A core course of Biochemistry. Coordinator: Teaching Carbohydrate and Amino Acids metabolism and Recombinant protein production.
- 2- Integrated Disease Management-7 (IDM7): Introduction and Mechanism of Toxicity, Industrial and Environmental Toxicology. (8 hrs.)

- 3- Pharmacodynamics V -Old Curriculum: ended 2019: (Clinical Toxicology, Immunopharmacology and Cancer Biology)- **Course Coordinator** (A core course: Teaching-Mechanism of toxicity, Management of poisoned patients, environmental toxicity (CO, SO<sub>2</sub>, Nitric oxide gases, O<sub>3</sub> etc), metals, alcohols, pesticide toxicity, endocrine disruptors, polychlorinated biphenyls, and analgesics, calcium channel blockers, digitalis and adrenergic blockers toxicity and syndromes (12 hrs. didactic teaching and 3 X 2Hrs exams).
- 4- Introduction to Molecular Medicine (PHRE 5221)-Course Coordinator (An elective course involving DNA technology from basic to applied which includes Human genome, DNA replication, Transcription, Translation, Gene Cloning, Molecular biological technique application for diagnostics of infection, Recombinant protein production, Biopharming, Transgenesis, Gene Therapy and Regenerative Medicine (14X 2 Hrs. =28 Hrs.)
- 5- Literature Research in Pharmaceutical Sciences (PHRE 5993)-Course Coordinator (Pharm D students' elective course involving literature review on selected topics of Pharmaceutical significance)
- 6- Pharmacodynamics Principles & Cardiovascular Pharmacology (PHA4220) (4 Hrs. of Xenobiotic metabolism)
- 7- Research in Pharmaceutical Sciences (PHA 5999) (Pharm D students' elective to conduct research in the lab)

#### **PhD Courses:**

- 8- Advanced Pharmacogenomics and Molecular Medicine (PHRP 7220)-Course coordinator (Human genome, Translation, DNA sequencing including next generation sequencing, Recombinant protein production and Biopharming, Transgenesis, Gene Therapy: 6X3 hrs. =18 hrs.)
- 9- Research Techniques and Instrumentation (PHRP 7204) (Protein Chemistry, Western blotting, Monoclonal antibody and enzyme immunoassay- 3hrs)
- 10- Applied Pharmacology (PHRP 7222-)(Pesticides and alcohol toxicity and Non-viral Gene therapy-6 hrs [example Cystic Fibrosis])
- 11- Molecular Cellular Pharmacology (Nuclear Receptor-3 hrs.)

### **PROFESSIONAL ACTIVITIES**

#### **Mentoring: Graduate/Master/Undergraduate students:**

##### **1- Undergraduate Students: (Biol 4950 and independent research studies):**

Gopi Naik, Paige Swalley (2012), Nida Rizvi, Daniel Sanders (2014), Cecilia Martins Goncalves Menezes (2016), Sami Ansari, Mois Khan, Bhoomi Patel (2017), Steven Brettler (2017), Samirah Khan, Salma Awad (2019-20) and Sahira Syed (2021).

##### **2- MS Students**

**Gaurang Patel: MS student** *"The production and use of a reporter gene for determining the biological activity of xenobiotics. Master's thesis (2001) submitted by Gaurang Patel, under the joint program of NCTR and University of Birmingham, UK.*

**Khlood Alghamdi.** Hypoxia and Non-alcoholic Fatty Liver Disease (NAFLD) (2022)

### 3- PhD Students

**Tahani Momenah: PhD student** "Regulation of human angiotensinogen gene after ethanol". 2020-Contd.

**Saleh Alfuraih:** Role of inflammation in expression of genes of Cell-cell contact. 2021-Contd.

**4- PhD Committees:** 1-Manasi Pimpley, 2-Ali Alaseem, 3-Khalid Hazzani, 4-Mohammad Mansoor Algahtani, 5- Saad Alobid, 6- Abdullah Alahmed, 7-Priya Dondapati, 8- Ali Almutairi, 9- Colton Simmons, 10- Ms Jowahar Alanazi, 11- Samia Alsubhi, 12- Amal Alzahrani and 13- Ahmed Alsarrani

### CHAIRMAIN: NATIONAL & INTERNATIONAL CONFERENCES:

**1-Health Professions Day: Feb 12, 2014**

**2-Gene-Environment Interactions:** Gene Regulation Session, Society of Toxicology, March 7-11, 2010 held at Salt Lake City Convention Center.

**3-Polycyclic Aromatic Hydrocarbon,** Society of Toxicology, March 6-10, 1995 held at Baltimore Convention Center.

### EDITOR / MEMBER EDITORIAL BOARD:

**1: Editor-in-Chief:** *The Asia Journal of Applied Microbiology* (Feb. 09, 2016)- two year term

**2: Editor:**  
**Executive Editor** - *Journal of Drug Metabolism and Toxicology*  
**Academic Editor** - *International STD Research and Reviews*

**3: Editorial Board Member (Selectively mentioned):**  
1-American Journal of Biochemistry  
2-ISRN-AIDS  
3-Advances in Genetic Engineering & Medicine  
4-Journal of Liver: Disease and Transplantation  
5-Drug Intoxication and Detoxification: Novel Approaches  
6-Bulletin of Environmental Contamination and Toxicology  
7- Biochemistry & Molecular Biology: Sciknow  
8-Journal of Developing Drugs  
9-Journal of Pharmacology & Clinical Toxicology  
10- Journal of Addiction and Neuropharmacology (JANP)  
11-The Journal of Animal Genetic Research  
12. Jacob Journal of Toxicology  
13. Toxicology Applied Pharmacology  
14. Biomolecules  
15. Endocrinology and Endocrine System

4. **Guest Editor:** *Frontier of Genetics: Epigenetics and Transcriptional Dysregulation in Cancer and Therapeutic Opportunities.*

- Total Manuscript Submitted -47
- Accepted Manuscript -17
- Total Rejected Manuscript -29
- Interactive Review -1

5. **Adhoc reviewer (Selectively mentioned):**

- 1-Biology of Reproduction., 2-Toxicological Sciences
- 3-Bulletin of Environmental Contamination and Toxicology
- 4- Journal of Pediatric Biochemistry, 5-Toxicologic Pathology
- 6-The Open Gastroenterology Journal, 7-Integrative Biology
- 8-American Journal of Biochemistry, 9-Toxicology Applied Pharmacology,
- 10-Toxicological & Environmental Chemistry, 11-Jacob journal of Toxicology
- 12- ISRN-AIDS

**Grant Submission(s) and Award(s):**

1. **Environmental Protection Agency. (Role: PI).** Development of Innovative Approaches to Assess the Toxicity of Chemical Mixtures. \$619,152.00 (Submitted Dec. 08, 2021).
2. **National Institutes of Health (NIH) (Role: Co-PI).** Nanoscale multimodal self-amplifying mRNA vaccine against invasive strains of Haemophilus influenza. (Submitted 10/05/20 21)
3. **National Science Foundation (Role: Co-PI). FMSG:** Modular Handheld Chem-Bio Detectors for Distributed Manufacturing-Bio. \$40,000 (Co-PI). Submitted August 2021- Not awarded
4. **National Science Foundation (Role: Co-PI). FMSG:** Modular Handheld Chem-Bio Detectors for Distributed Manufacturing-Bio. \$40,000 (Co-PI). Submitted August 2020-2016-Not awarded
5. **Health Profession Division (HPD), Nova Southeastern University Award (Role: PI):** Human angiotensinogen gene acute phase response after Interleukin-6 and Ethanol. July 2021 (\$7,500)
6. **President's Faculty Research and Development Grant (Role: PI):** Human angiotensinogen gene acute phase response after Interleukin-6 and Ethanol 2020 (\$15,000)-NOT AWARDED
7. **Alternate Research Development Foundation (Role: PI),** Cell based model for studying the human angiotensinogen gene regulation after ethanol and cytokines. July 2016 (\$40,000)-NOT AWARDED
8. **President's Faculty Research and Development Grant (Role: PI):** Hypoxia Inducible Factor mediated human angiotensinogen gene regulation. May 2015 (\$15,000). -Awarded

2. **Health Profession Division (HPD), Nova Southeastern University Award (PI):**  
“Role of ethanol and interleukin-1 $\beta$  on angiotensinogen gene in cell based model system” August, 2012 (\$5000). **Awarded**
3. **President’s Faculty Research and Development Grant (Co-PI):** “Crystal Engineering Strategy for Prevention of Hepatotoxicity” May 2012 (\$10,000). **Awarded**
4. **Health Profession Division (HPD), Nova Southeastern University Award (PI):**  
“Regulation of Human Angiotensinogen Gene by Ethanol” Jan. 13, 2010 (\$5000). **AWARDED**
5. “Regulation of human angiotensinogen gene after ethanol” **Submitted Sept. 01, 2010, Alcohol Foundation (ABMRF) and Resubmitted 2011- NOT AWARDED.**
6. “Regulation of human angiotensinogen gene after ethanol” **Submitted Feb. 2012: NIH/R15-Resubmitted. Not Awarded.**
7. Role of cytokines in regulation of human angiotensinogen after ethanol: **August 2011: PhRMA-Not Awarded.**
8. Regulation of human angiotensinogen gene transcription by sterol regulatory element binding protein, American Heart Foundation, \$240,000.00, (Apr, 2004 - Mar, 2008). **(PI) Not awarded.**
9. Estrogenic Potential of Xenoestrogens, National Institute of Health, \$875,000.00, (Dec, 2002 - Nov, 2007). **(PI) Not awarded.**
10. Nuclear Transcription in Xenoestrogens' induced Prostatic Hyperplasia, Arnold Mabel Beckman Foundation, \$40,000.00, (Oct, 2002 - Sep, 2003). **(PI) Not awarded.**
11. Estrogenic Potential of Xenoestrogens, NIH, \$875,000.00, (Dec, 2001 - Nov, 2006). **(PI) Not awarded.**

**College and Department Committees:**

2009- 2018: College Admission Committee  
 2010 -11 and 2012-13: College Research Committee  
 2010-11 and 2015: Departmental Curriculum and Assessment Committee  
 2012-13: College Admission and Research Committees  
 2013 -14: Students Engagement Task Force  
 2014-17: Awards Committee  
 2019-Contd. Award Committee  
 2017-Contd.: College Scholarship Committee  
 2021-Contd: Co-Chair College Scholarship Committee

**MEMBERSHIP in PROFESSIONAL and SCIENTIFIC ORGANIZATIONS:**

*Society of Toxicology: Full Member since 1993*

## **HONORS and AWARDS:**

Nominated for STUEY Award, College of Pharmacy 2018

Nominated for Professor of Year Award, College of Pharmacy 2020

National Merit Scholarship: 1972-76, Awarded after Matriculation till B.S.

Junior Research Fellowship: 1980-83, Awarded from Indian Council of Medical Research (ICMR) New Delhi, for Ph.D. Program.

## **Promotion Portfolios Evaluation:**

**2022:** Sirajudheen Anwar, Hail University, Kingdom of Saudi Arabia

**2021:** Mohammad Khalid Siddiqui, Faculty at King Saud University, Riyadh, KSA

**2019:** Ayman Shatnawi, University of Charleston, School of Pharmacy, WV

## **PUBLICATIONS:**

### **Proposed Book Chapters:**

1. Rais A Ansari, Ata Abbas, Saghir Shakil, Yadollah Omid and Saleem Javed (2022). Alternative Splicing and Cancer Metabolism in Alternative Splicing and Cancer edited by Muzafar A. Macha, Ph.D. (Under Review)
2. Rais A Ansari, Kamran Shekh, Yadollah Omid and Saghir A Shakil (2022). Endocrine Disruptors: Genomic, Epigenomic and Related Pathways in proposed book Genomic and Epigenomic Effects of Environmental Engineered Nanomaterials edited by Saura C. Sahu.
3. Kamran Shekh, Rais A Ansari, Yadollah Omid, and Saghir A Shakil, (2022). Impact of Engineered Nanomaterials in Genomics and Epigenomics in proposed book Genomic and Epigenomic Effects of Environmental Engineered Nanomaterials edited by Saura C. Sahu.

### **BOOK CHAPTER/Contributor:**

1. Saghir SA, and Ansari RA (2022). Fate of Chemicals Following Exposure I: Absorption. In, Encyclopedia of Toxicology, 4th Edition (Wexler et al., Eds.). Elsevier, Oxford, (submitted).
2. Saghir SA, and Ansari RA (2022). Fate of Chemicals Following Exposure II: Distribution. In, Encyclopedia of Toxicology, 4th Edition (Wexler et al., Eds.). Elsevier, Oxford, (submitted).
3. Saghir SA, and Ansari RA (2022). Fate of Chemicals Following Exposure III: Biotransformation/Metabolism. In, Encyclopedia of Toxicology, 4th Edition (Wexler et al., Eds.). Elsevier, Oxford, (submitted).

4. Saghir SA, and Ansari RA (2022). Fate of Chemicals Following Exposure IV: Excretion. In, Encyclopedia of Toxicology, 4th Edition (Wexler et al., Eds.). Elsevier, Oxford, (submitted).
5. Saghir SA, and Ansari RA (2022). Fate of Chemicals Following Exposure V: Toxicokinetics/Pharmacokinetics. In, Encyclopedia of Toxicology, 4th Edition (Wexler et al., Eds.). Elsevier, Oxford, (submitted).
6. Saghir SA, and Ansari RA (2022). Polybrominated Biphenyls (PBBs). In, Encyclopedia of Toxicology, 4th Edition (Wexler et al., Eds.). Elsevier, Oxford (submitted).
7. Saghir, S.A., Momenah, T., Husain K., and Ansari, R.A. (2022). Organophosphorous Pesticides. Patty's Toxicology, 7<sup>th</sup> Edition. Edited by Farland B., Klaunig J., and Paustenbach D., John Wiley and Sons Inc. (In Press)
8. Saghir, S.A., Ewert, D.H., and Ansari, R.A. (2022). Cadmium and Cadmium compounds. Patty's Toxicology, 7<sup>th</sup> Edition. Edited by Farland B., Klaunig J., and Paustenbach D., John Wiley and Sons Inc. (Submitted)
9. Ansari, R.A., Momenah, T., Husain K., and Saghir, S.A. (2022). Aliphatic Caroxylic Acids: Saturated. Patty's Toxicology, 7<sup>th</sup> Edition. Edited by Farland B., Klaunig J., and Paustenbach D., John Wiley and Sons Inc. (In Press)
10. Saghir SA, Ewert DH, and Ansari RA (2022). History and Trends in Industrial Toxicology. Patty's Toxicology, 7<sup>th</sup> Edition, Edited by Farland B, Klaunig J, Paustenbach D. John Wiley & Sons, Inc. (In Press).
11. Saghir SA, Ewert DH, and Ansari RA (2022). History and Trends in Industrial Toxicology. Patty's Toxicology, 7<sup>th</sup> Edition, Edited by Farland B, Klaunig J, Paustenbach D. John Wiley & Sons, Inc. (In Press).
12. Rais A Ansari, Shakil A Saghir, Rebecca Torisky and Kazim Husain (2020). Recombinant protein production: from bench to biopharming. Bentham publication e-book chapter. *Frontiers in Drug Design and Discovery*, 1-30
13. Saghir SA, and Ansari RA (2019). Metabolism. In, *Reference Module in Biomedical Research*, Elsevier, Oxford, pp1-26.
14. Saghir SA, and Ansari RA (2018). Pharmacokinetics. In, *Reference Module in Biomedical Research*, Elsevier, Oxford.
15. Lippincott's Illustrated Reviews: PHARMACOLOGY; Series Editor; Richard A. Harvey 5<sup>th</sup> Edition.
16. Rais Ansari, Kazim Husain and Claude L. Hughes (2016). Ligand-mediated Toxicology: Characterization and Translational Prospects; In *Molecular Integrative Toxicology*, Claude L. Hughes and Michael D. Waters (Eds): Translational Toxicology, 978-3-319-27447-8, 322177\_1\_En, (4)



## Research Publications:

17. Mohammad M Pourseif, Yosef Masoudi-Sobhanzadeh, Erfan Azari, Sepideh Parvizpour, Jaleh Barar, Rais Ansari, and Yadollah Omidi (2022). Self-amplifying mRNA vaccines: mode of action, design, development and optimization. *Drug Discovery Today* (In Press), Available online August 18, 2022; 103341
18. Mostafa Akbarzadeh-Khiavi, Hamed Farzi-Khajeh, Mohammad Hossein Somi, Azam Safary, Jaleh Barar, *Rais Ansari* and Yadollah Omidi (2022). Eradication of KRAS Mutant Colorectal Adenocarcinoma by PEGylated Gold Nanoparticles-cetuximab Conjugates Through ROS-Dependent Apoptosis. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* (In Press). Available online August 8, 2022; 129890
19. Shakil A Saghir, Saleem Javed and *Rais A Ansari*. SARS-CoV-2 Mode of Infection, Pathogenesis and Treatment Options employing other Retrovirus models. *BiolImpact* (Accepted). doi: 10.34172/bi.2022.23948
20. Ehsan Habeeb, Saad Aldosari, Mariam Cheema, Tahani Momenah, Shakil A Saghir, Kazim Husain, Yodallah Omidi, Syed Asad A Rizvi, Muhammad Akram and *Rais A Ansari* (2022). Role of Environmental Toxicants in the Development of Hypertensive and Cardiovascular Diseases. *Toxicology Reports*. 9; 521-533
21. Muhammad Omer Iqbal, Asad Saleem Sial, Imran Akhtar, Muhammad Naeem, Abu Hazafa, Rais A Ansari and Syed A.A. Rizvi (2021). The nephroprotective effects of *Daucus carota* and *Eclipta prostrata* against cisplatin-induced nephrotoxicity in rats. *BIOENGINEERED*. (In Press). KBIE #10.1080/21655979.2021.2009977, VOL 00, ISS 00
22. Nishat Fatima, Syed Shabihe Raza Baqri, Atrayee Bhattacharya, Nii Koney-Kwaku, Kazim Husain and *Rais Ansari* (2021). Role of Flavonoids as Epigenetic Modulators in Cancer Prevention and Therapy. *Frontier in Genetics*. 12; article 758733. 1-17 (111327): doi: 10.3389/fgene.2021.758733
23. Saghir A Shakil, *Rais A Ansari* and Michael Doroto (2020). Influence of Aging on the Outcome of Long-Term Toxicity Testing and Possible Remediation. *Food and Chemical Toxicology*. 141; 111327
24. Jacqueline Bullock, Syed AA Rizvi, Ayman M. Saleh, Sultan S Ahmed, Duc P Do, *Rais A Ansari* and Jasmine Ahmed (2019): Rheumatoid Arthritis: A brief Overview of the treatment. Accepted September 2, 2019: DOI: 10.1159/000493390
25. Kazim S, *Ansari R*, Hernandez W, Ferder L, Husain K. Therapeutic Intervention of Human Pancreatic Cancer. *Ann Clin Pharmacol Ther*. 2018; 1(1):
26. Samra Kazim, Rais A. Ansari and Kazim Husain (2016). Alcohol Beverages-induced hypertension and its management. *World Journal of Pharmaceutical and Life Sciences*. 2(5) 311-338

27. Rais Ansari, Kazim Husain and Syed A. Rizvi (2016). Role of transcription factors in steatohepatitis and hypertension after ethanol: The epicenter of metabolism. *Biomolecules*. 2016, 6(3), 29; doi:[10.3390/biom6030029](https://doi.org/10.3390/biom6030029)
28. Kazim Husain, Wilfredo Hernandez, Rais A Ansari and Leon Ferder (2015). Inflammation, oxidative stress and renin angiotensin system in atherosclerosis. *World Journal of Biological Chemistry*. Aug. 26; 6(3): 209-217
29. Kazim Husain, Rais A Ansari, and Leon Ferder (2014). Alcohol-induced hypertension: Mechanism and prevention. *World J Cardiol* 6(5): 245-252.
30. Monique L Hart, Duc P Do, Rais A Ansari and Syed A A Rizvi (2013). Brief overview of various approaches to enhance drug solubility. *J Develop Drugs* 2(3): 115. doi:[10.4172/2329-6631.1000115](https://doi.org/10.4172/2329-6631.1000115)
31. Rais A. Ansari, Syed A. A. Rizvi, Kazim Husain and Natalia Osna (2012). Role of angiotensin peptides precursor in Ethanol mediated Hepatotoxicity: perspective on angiotensinogen. *The Open Gastroenterology Journal* 6: 16-24
32. K. Husain, R.A. Ansari and Leon Ferder (2010). Pharmacological agents in the prophylaxis/treatment of organophosphorous pesticide intoxication. *Ind. J. Exp. Biol.* 48 (July): 642-650
33. Rais A. Ansari, Syed A. A. Rizvi, Kazim Husain, Anastasios Lymperopoulos and William O Berndt (2012): Effect of sulfhydryl modification on rat kidney basolateral plasma membrane transport function. *Bulletin of Environmental Contamination and Toxicology*. Oct. 89(4):699-703
34. Husain K, Ferder L, Ansari RA, Lalla J (2011). Chronic ethanol ingestion induces aortic inflammation/oxidative endothelial injury and hypertension in rats. *Hum Exp Toxicol*. Aug;30(8):930-9.
35. G. Vasiliver-Shamis, M. Tuen, T.W. Wu, T. Starr, T.O. Cameron, R. Thomson, G. Kaur, J. Liu, M.L. Visciano, H. Li, R. Kumar, R. Ansari, Dong P. Han, M.W. Cho, M.L. Dustin and C.E. Hioe (2008). Hiv-1 envelope gp120 induces a stop signal and virological synapse formation in non-infected CD4<sup>+</sup> T-cells. *J Virol*. Oct. **82** (19): 9445-57
36. A. Penn-Nicholson , D.P. Han, S.J. Kim, H. Park, R. Ansari, D.C.Montefiori and M.W. Cho (2008). Assessment of antibody response against gp41 in HIV-1 infected patients using soluble gp41 fusion proteins and peptides derived from M group consensus envelope. *Virology*. **372** (2): 442-456
37. K. Husain, M. Vazquez, R. A. Ansari, M.P. Malafa and J. Lalla (2008). Chronic alcohol-induced oxidative endothelial injury relates to angiotensin II levels in rat. *Mol. Cell. Biochem*. **307** (1-2): 51-58
38. R. A. Ansari, and J. Gandy (2007). Determining the Transrepression Activity of Xenoestrogen on Nuclear Factor-κB in Cos-1 cells by Estrogen Receptor-α. *Int. J. Toxicol*. 26 (5): 441-449

39. C. Li, R.A. Ansari, Z. Yu and D. Shah (2000). Definitive molecular evidence of renin-angiotensin system in human decidual cells. *Hypertension* 36 (2): 159-164.
40. T-L. Chang, M.G. Kramer, R.A. Ansari and S.A. Khan (2000). Role of individual monomers of a dimeric initiator protein in the initiation and termination of plasmid rolling circle replication. *J. Biol. Chem.* **275**(18): 13529-13534
41. A. C. Zhao, R.A. Ansari, M.C. Schmidt and S. A. Khan (1998). An oligonucleotide inhibits oligomerization of a rolling circle initiator protein at pT181 origin of replication. *J. Biol. Chem.* **273**(26): 16082-16089.
42. R. A. Ansari, R. S. Thakran and W. O. Berndt (1991). Effect of mercuric chloride on renal plasma membrane function after depletion or elevation of renal glutathione. *Toxicol. Appl. Pharmacology*, **111**(2): 364-372
43. R. A. Ansari, R. S. Thakran and W. O. Berndt (1991). Effect of potassium chromate and citrinin on renal membrane transporters. *Fund. Appl. Toxicol.* **16**: 701-709
44. R.A. Ansari, S. C. Tripathi, G. K. Patnaik and B.N. Dhawan (1991). Antihepatotoxic properties of *Picroliv*: the active fraction from rhizomes of *Picrorhiza Kurooa*. *J. Ethnopharmacol.* **34**: 61-68
45. R. A. Ansari, R. S. Thakran and W. O. Berndt (1991). The effect of mercuric chloride on transport by brush border and basolateral membrane vesicles isolated from rat kidney. *Toxicol. Appl. Pharmacol.* **106**: 145-153
46. W. O. Berndt and R. A. Ansari (1990). Nephrotoxicity of Metals: Effects on plasma membrane function. *Tox. Letters* **53**: 87-92
47. K. Hussain and R. A. Ansari (1990). Effectiveness of certain drugs in acute malathion intoxication in rats. *J. Ecotoxicol. Environ. Safety.* **19**: 271-275
48. K. Hussain and R. A. Ansari (1988). Influence of cholinergic and adrenergic blocking drugs on hyperglycemia and cerebral glycogenolysis in diazinon treated animals. *Canad. J. Physiol. Pharmacol.* **66**: 1144-1147
49. R. A. Ansari, B. S. Aswal, R. Chander, B. N. Dhawan, N. K. Garg, N. K. Kapoor, D. K. Kulshreshtha, H. Mehdi, B. N. Mehrotra, G. K. Patnaik and S. K. Sharma (1988). Hepatoprotective activity of *Kutkin*: the irridoid glycoside mixture of *Picrorhiza kurooa*. *Ind. J. Med. Res.* **87** (4): 401-404
50. R. A. Ansari, K. Hussain and P. K. Gupta (1987). Effect of Endosulfan on neurotransmitters in discrete brain regions: Its possible role in thermoregulation. *J. Environ. Biol.* **8** (3): 229-236
51. R. A. Ansari, K. Hussain and P. K. Gupta (1987). Effect of subchronic exposure of malathion on blood and tissue enzyme activities in female rats. *J. Environ. Biol.* **8** (2): 131-136

52. R. A. Ansari, M. K. J. Siddiqui and P. K. Gupta (1984). Toxicity of endosulfan: distribution of  $\alpha$  and  $\beta$ -isomers of racemic endosulfan following oral administration to rats. *Tox. Letters* **21** (1): 29-33
53. R. A. Ansari, and P. K. Gupta (1983). Effect of endosulfan on testes: A biochemical study. *Advances in Biosciences* **2** (1): 61-67
54. R. A. Ansari, and P. K. Gupta (1982). Effect of endosulfan on production and maturation of sperms of gonads in male rats. *J. Vet. Physiol. Allied. Sciences* **1** (1): 43-47

### **Editorial Letters:**

1. Ansari RA and Abbas A (2022) Editorial: Epigenetic and Transcriptional Dysregulations in Cancer and Therapeutic Opportunities. *Front. Genet.* 13:857380. doi: 10.3389/fgene.2022.857380
2. R. A. Ansari (2013). Drugs Needed for Treatment of Liver Cirrhosis. *J Drug Metab Toxicol* 2013, 4:3
3. R. A. Ansari (2012). Defining the Role of Single Nucleotide Polymorphic (SNP) in Drug Development and Toxicity. *J Drug Metab Toxicol* 2012, 3:2.
4. R. A. Ansari (2012). Welcome to Drug Metabolism and Toxicology. *J Drug Metab Toxicol* 2012, 3:2.
5. R. A. Ansari (2012). Defining Single Nucleotide Polymorphic (SNP) Variants Role of Human Angiotensinogen in Liver Fibrosis. *J Liver: Dis Transplant* 2012, 1:1.

### **Dissertation:**

6. Reproduction Toxicity and Fetal abnormality in rats exposed to endosulfan (1985). Advisor: Dr. P. K. Gupta, Chairman, Department of Pharmacology and Toxicology, Indian Veterinary Research Institute, Izat Nagar (Bareilly), U.P. India.

### **Patent(s):**

7. R. A. Ansari, R. Chander, S. K. Chatterjee, B. N. Dhawan, Y. Dwivedi, N. K. Garg, Km Poonam Jain, N. K. Kapoor, D. K. Kulshreshtha B. N. Mehrotra, G. K. Patnaik, Km Ravi Rastogi, J. P. S. Sarin, K. C. Saxena, S. C. Sharma, S. K. Sharma, Km. Binduja Shukla and K. P. S. Visen. An efficient simple process for obtaining *picrolov*: a standardized fraction from *Picrorhiza kurooa* Royle ex Benth. Indian Patent filed in 1988.

### **Published Abstracts:**

1. Sami A. Ansari, Mois A. Khan, Emily Schmitt-Lavin and R. A. Ansari. Human angiotensinogen gene regulation by Hypoxia Inducible factor- A cell based study. Undergraduate symposium at Nova Southeastern University, April 2019.

2. Steven A. Brettler and R. A. Ansari. Effect of ethanol on IL-6 mediated effect on human angiotensinogen using human hepatocytes: an in vitro model. Presented at US Society of Toxicology, 2018 Annual Meeting held at San Antonio, TX, March 12-16, 2018
3. Sami. A. Ansari and R. A. Ansari. A cell-based model for Studying Human Angiotensinogen Gene Regulation after Cytokines. Presented at US Society of Toxicology, 2017 Annual Meeting held at Baltimore, MD, March 12-16, 2017
4. Cecilia M.G. Menezes and R. A. Ansari. Establishment of cell based model for studying human angiotensinogen gene regulation after xenobiotics. Presented at US Society of Toxicology, 2016 Annual Meeting held at New Orleans, LA; March 13-17, 2016
5. Nida Rizvi, R. A. Ansari and A. Raja. Role of Hypoxiamimetics in regulation of Angiotensinogen in Human Hepatocytes: Undergraduate symposium at Nova Southeastern University, April 2015
6. Md. Rezaul Karim, Syed AA Rizvi and Rais A Ansari. Cell based Model for studying the regulation of human angiotensinogen gene. Health Professions Division (HPD) Day: Feb. 2014. Poster # 24, Nova Southeastern University, Fort Lauderdale, FL
2. R. A. Ansari, Karim, Md R, S. A. A. Rizvi and M. A. Clark. Role of hypoxiamimetics in regulation of angiotensinogen in human hepatocyte. Presented at US Society of Toxicology, 2014 Annual Meeting held at Phoenix, AR, March 21-24, 2014
3. Karim, Md R, R. A. Ansari, M. A. Clark and S. A. A. Rizvi. Role of cytokines in regulation of angiotensinogen in human hepatocyte. Presented at US Society of Toxicology, 2014 Annual Meeting held at Phoenix, AR, March 21-24, 2014
4. R.A. Ansari, S. A. A. Rizvi, and M. A. Clark (2013). Role of alcohol dehydrogenase in regulation of angiotensinogen in human hepatocyte. Presented at US Society of Toxicology, 2013 Annual Meeting held at San Antonio, TX, March 10-14, 2013
5. R.A. Ansari, S. A. A. Rizvi, and M. A. Clark (2012). Angiotensinogen gene regulation after ethanol exposure in hepatocytes: Presented at World Congress of Gastroenterology and Urology: Omaha, NE, March 12-14, 2012
6. R.A. Ansari and M. A. Clark (2011): Regulation of angiotensinogen gene after ethanol in hepatocytes: Presented at US Society of Toxicology, 2011 Annual Meeting held at Washington DC
7. Li, R. Ansari, Z. Yu and D. Shah (2000). Decidual renin secretion is dependent on *de novo* protein synthesis and may be supported by stable prorenin expression.

- "International Society for Study of Hypertension in Pregnancy (ISSHP). July 9-13, Paris, France.
8. A. Zhao., R. Ansari and S. Khan (1995) Initiation and termination of plasmid pT181 replication. 95<sup>th</sup> General Meeting of American Society for Microbiology, Washington D.C.
  9. W. O. Berndt, R. A. Ansari and R. S. Thakran (1993). The effect of SH reagents on SH content of renal basolateral and brush border vesicles. 32<sup>nd</sup> Annual Meeting of Society of Toxicology, March 14-18, New Orleans, LA.
  10. R. A. Ansari, R. S. Thakran and W. O. Berndt (1993). The protective effect of dithiothreitol (DTT) on SH reagent directed inhibition of p-aminohippurate (PAH) transport by basolateral vesicles. 32<sup>nd</sup> Annual Meeting of Society of Toxicology, March 14-18, New Orleans, LA.
  11. R. A. Ansari, R. S. Thakran and W. O. Berndt (1992). Effect of SH reagent on renal plasma membrane vesicles transport of organic compounds. FASEB 6:A 1280
  12. R. A. Ansari, R. S. Thakran and W. O. Berndt (1992). Effect of sulfhydryl reagents on transport of organic compounds by plasma membrane vesicles. Toxicologist 12(1) 91
  13. R. A. Ansari, R. S. Thakran and W. O. Berndt (1991). Glutathione (GSH) depletion and excess: modification of citrinin induced alterations in renal plasma membrane transport. Pharmacologist 33 (3) 232
  14. R. A. Ansari, R. S. Thakran and W. O. Berndt (1991). Glutathione (GSH) depletion: Effect of chromate (Cr-) induced alterations on renal plasma membrane transport. FASEB J. 5 A877
  15. R. A. Ansari, R. S. Thakran and W. O. Berndt (1991). The effect of glutathione monoethyl ester (GMEE) on mercuric chloride (Hg) induced alteration in renal plasma membrane function. Toxicologist. 11 (1) 232
  16. R. A. Ansari, R. S. Thakran and W. O. Berndt (1991). Effect of mercuric chloride on plasma membrane from glutathione depleted rats. Pharmacologist 32 (3) 165
  17. R. A. Ansari, R. S. Thakran and W. O. Berndt (1990). Effect of nephrotoxicants on renal membrane transport. In vitro studies. Toxicologist 10 (1) 179
  18. W. O. Berndt, R. S. Thakran and R. A. Ansari (1990). Effect of nephrotoxicants on renal membrane transport. In vivo studies. Toxicologist 10 (1) 179
  19. R. A. Ansari, G. K. Patnaik and B. N. Dhawan (1988). Hepatoprotective effect of *Kutkin*: The active principle of *Picrorhiza kurooa*. Presented at the symposium on indigenous drugs in India, June 1988 at IHMMR, New Delhi

20. R. A. Ansari, M. K. J. Siddiqui and P. K. Gupta (1983). Endosulfan accumulating tendency of body tissues of rats. 52<sup>nd</sup> Annual Meeting of Society of Biological Chemist (India), Nov. 26-28, 1983, Pune, India
21. P.K. Gupta, S. C. Srivastva and R. A. Ansari (1980). Toxic effect of endosulfan on male reproductive organs in rats. Golden Jubilee and 2<sup>nd</sup> Congress of Federation of Asian and Oceanic Biochemists, Bangalore, India (Dec.)
22. R. A. Ansari and P. K. Gupta (1980). Influence of endosulfan on biochemical parameters of rats testes. Golden Jubilee Meeting and 2<sup>nd</sup> Congress of Federation of Asian and Oceanic Biochemists, Bangalore, India (Dec.).

### **SEMINARS, ORAL PRESENTATIONS and LECTURES:**

“Angiotensinogen gene regulation after ethanol exposure in hepatocytes” March 12-14, 2012: World Congress of Gastroenterology and Urology, Omaha, NE.

“Regulation of human angiotensinogen gene after ethanol” April 2011, College of Pharmacy, Nova Southeastern University.

“Regulation of human Angiotensinogen gene transcription by Insulin: Possible link to Hypertension in Obese and type2 diabetes patients” Oct. 13, 2003, Department of Pathology, New York Med College, Valhalla, NY

“Estrogenic Potential of Xenoestrogens” April 30, 2002, ARS Center, Starkville, MS.

“Water Channel and Nephrogenic Diabetes Insipidus”. Oct. 30, 1995. Departmental Seminar at Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261

“Water Transport”. Oct. 04, 1993, Departmental Seminar at Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261

“Effect of xenobiotics on plasma membrane function. Nov. 30, 1992. Cancer Immunology Center, University of Texas Southwestern Medical Center, Dallas, TX.

“The effect of sulfhydryl reagents on transport of organic compounds by renal plasma membrane vesicles”. 1992. Poster Discussion at 31<sup>st</sup> Annual Meeting of US Society of Toxicology, Seattle, WA.

“The effect of Glutathione monethyl ester (GMEE) on mercuric chloride induced alterations in renal cell plasma membrane function”. 1991. Poster Discussion at 30<sup>th</sup> Annual Meeting of US Society of Toxicology, Dallas, TX.

“Effect of Nephrotoxicants on renal membrane transport: *In Vitro* study”. 1990. Oral presentation at 29<sup>th</sup> Annual Meeting of US Society of Toxicology, Miami, FL.

“Hepatoprotective effect of Kutkin: The active principle of *Picrorhiza Kurooa*” June 1988. Presented at Symposium on Indigenous drugs in 25 years in India at IHMMR, New Delhi, India.

“Reproduction toxicity after endosulfan”. 1986. Departmental Seminar at Central Drug Research Institute, Lucknow, India.

### **Contribution to Science**

My publication highlighted that HIV-1 gp120-presenting surfaces arrested the migration of primary activated CD4 T cells that occurs spontaneously in the presence of CD31 and induced the formation of a virological synapse, which was characterized by segregated supramolecular structures with a central cluster of envelope surrounded by a ring of CD31. We found that (i) antibody responses against different regions of gp41 varied tremendously among individual patients, (ii) patients with stronger antibody responses against membrane-proximal external region exhibit broader and more potent neutralizing activity, and (iii) several patients mounted antibodies against epitopes that are near, or overlap with, those targeted by 2F5 or 4E10. These soluble gp41 fusion proteins could be an important source of antigens for future vaccine development efforts.

- G. Vasiliver-Shamis, M. Tuen, T.W. Wu, T. Starr, T.O. Cameron, R. Thomson, G. Kaur, J. Liu, M.L. Visciano, H. Li, R. Kumar, **R. Ansari**, Dong P. Han, M.W. Cho, M.L. Dustin and C.E. Hioe (2008). Hiv-1 envelope gp120 induces a stop signal and virological synapse formation in non-infected CD4+ T-cells. *J Virol.* Oct. 82 (19): 9445-57
- A. Penn-Nicholson, D.P. Han, S.J. Kim, H. Park, **R. Ansari**, D.C. Montefiori and M.W. Cho (2008). Assessment of antibody response against gp41 in HIV-1 infected patients using soluble gp41 fusion proteins and peptides derived from M group consensus envelope. *Virology.* 372 (2): 442-456

As a co-author, my work showed that the role of Individual Monomers of a Dimeric Initiator Protein in the Initiation and Termination of Plasmid Rolling Circle Replication and we have shown that a DNA binding mutant of RepC can be targeted to the origin in the presence of the wild-type protein primarily through a protein-protein interaction. Interestingly, RepC\* is defective in its ability to oligomerize on the DNA. RepC\* inhibited the DNA binding and replication activity of wild-type RepC to only a very limited extent, suggesting that it may play only a minor regulatory role in replication in vivo. Based on these and earlier results, we propose a model for the role of RepC during the initiation and termination of pT181 RC replication.

- T-L. Chang, M.G. Kramer, **R.A. Ansari** and S.A. Khan (2000). Role of individual monomers of a dimeric initiator protein in the initiation and termination of plasmid rolling circle replication. *J. Biol. Chem.* 275(18): 13529-13534
- A. C. Zhao, **R.A. Ansari**, M.C. Schmidt and S. A. Khan (1998). An oligonucleotide inhibits oligomerization of a rolling circle initiator protein at pT181 origin of replication. *J. Biol. Chem.* 273(26): 16082-16089.

### **CURRENT RESEARCH INTERESTS:**

1. Regulation of human angiotensinogen and CYP11B2 (aldosterone synthase) gene by xenobiotics and their role in hypertension and fibrosis.
2. Mechanism of alcohol mediated breast cancer



3. Mechanism of Hepatosteatosis after Xenobiotics: Role of Transport Processes.
4. Role of transport protein(s) variants in drug toxicity and safety.
5. Biological activity and mechanism of transcriptional interference by environmental toxicants
6. Establishment of viral/eukaryotic/mammalian expression systems for expression and purification of recombinant proteins for drug discovery.