

CURRICULUM VITAE (as of June 14, 2023)

Full name Devendra Kumar Agrawal

Present Academic Rank *Professor and Director*

Office Address *Department of Translational Research
Western University of Health Sciences
309 East Second Street
Pomona, California 91766-1854, USA
Tel : (909) 469-7040
Fax : (909) 469-5577
E-mail: DAgrawal@WesternU.edu*

Citizenship United States of America

EDUCATION

2003 – 2005 **M.S. (Information Technology and Management)**
Creighton University, Omaha, NE
College of Business

2002 -2004 **M.B.A. (Business Administration)**
Creighton University, Omaha, NE
College of Business

1984 – 1985 **Postdoctoral Fellow (Pharmacology)**
University of British Columbia
Faculty of Pharmaceutical Sciences
Vancouver, Canada
Mentor: John H. McNeill, Ph.D.

1982 – 1984 **Postdoctoral Fellow (Physiology and Pharmacology)**
McMaster University
Faculty of Health Sciences
Hamilton, Ontario, Canada
Mentor: Edwin E. Daniel, Ph.D.

1980 – 1984 **Ph. D. (Medical Sciences)**
McMaster University
Department of Neurosciences
Hamilton, Ontario, Canada
Mentor/Major Advisor: Edwin E. Daniel, Ph.D.

1973 – 1978 **Ph.D. (Biochemistry)**
King George's Medical College
Lucknow University
Postgraduate Department of Pathology & Bacteriology

Lucknow, U.P., India
Mentors/Major Advisors: Professor Abhaya Kumar, D. Phil. and
Professor R. M. L. Mehrotra, MBBS, MD, FRCPath

1971 – 1973 **Master of Science (Chemistry) with specialization in
Organic Chemistry**

Lucknow University
Department of Chemistry
Lucknow, U.P., India

1969 – 1971 **B. Sc. (Major in Biology and Chemistry)**

Lucknow Christian College
Lucknow University
Lucknow, U.P., India

APPOINTMENTS

07/2019 – Present Professor and Director, Department of Translational Research, College
of Osteopathic Medicine of the Pacific, Western University of Health
Sciences, Pomona, California, USA

07/2019 – 02/2022 Senior Vice President for Research & Biotechnology, Western University
of Health Sciences, Pomona, California, USA

01/2016 – 06/2019 Professor and Chairman, Department of Clinical & Translational
Science, Creighton University School of Medicine, Omaha, NE

09/2009 – 06/2019 Director, Graduate Programs (MS and PhD)
Clinical & Translational Science
Creighton University Graduate School, Omaha, NE

07/2012 – 06/2017 Senior Associate Dean for Clinical & Translational Research
Creighton University School of Medicine, Omaha, NE

04/2009 – 06/2012 Associate Dean for Translational Research
Creighton University School of Medicine, Omaha, NE

04/2009 – 12/2015 Director
Center for Clinical and Translational Science
Creighton University School of Medicine, Omaha, NE

07/2004 – 12/2016 Professor
Department of Biomedical Sciences (primary)
Creighton University School of Medicine, Omaha, NE

07/2004 – 06/2019 Professor
Department of Internal Medicine (secondary)
Department of Medical Microbiology & Immunology (secondary)

Creighton University School of Medicine, Omaha, NE

- 01/1998 – 06/2004 Professor
Department of Biomedical Sciences (secondary)
Creighton University School of Medicine, Omaha, NE
- 07/1997 – 06/2004 Professor
Department of Internal Medicine (primary)
Department of Medical Microbiology & Immunology (secondary)
Creighton University School of Medicine, Omaha, NE
- 07/1990 – 06/1997 Associate Professor (**Tenure granted effective July 1990**)
Department of Internal Medicine (primary)
Creighton University School of Medicine, Omaha, NE
- 07/1995 – 06/1997 Associate Professor
Department of Medical Microbiology & Immunology (secondary)
Creighton University School of Medicine, Omaha, NE
- 07/1990 – 06/1995 Associate Professor
Department of Pharmacology (secondary)
Creighton University School of Medicine, Omaha, NE
- 07/1990 – 06/1995 Associate Professor
Department of Biomedical Sciences (secondary)
Creighton University School of Medicine, Omaha, NE
- 07/1990 -06/2002 Director, Multidisciplinary Cardiovascular Research Group (formerly
Creighton Vascular Center), Creighton University Medical
Center, Omaha, NE
- 10/1985 – 06/1990 Assistant Professor
Department of Internal Medicine (primary)
Department of Pharmacology (secondary)
Creighton University School of Medicine, Omaha, NE
- 10/1985 – 06/2003 Director of Pre-Clinical Research, Center for Allergy, Asthma and
Immunology, Creighton University School of Medicine, Omaha, NE
- 09/1980 – 06/1982 Teaching Assistant (a resource person to M.D. students in
Pharmacology), Faculty of Health Sciences
McMaster University Medical Center
Hamilton, Ontario, Canada
Supervisor: Edwin E. Daniel, Ph.D.
- 10/1978 – 08/1980 Clinical Biochemist
King George's Medical College (Now King George's Medical
University)

Gandhi Memorial & Associated Hospitals
Lucknow, U.P., India

08/1973 – 08/1978 Research Assistant
Postgraduate Department of Pathology and Bacteriology
King George's Medical College, Lucknow, U.P. India
Supervisors: Professor Abhaya Kumar and Professor RML Mehrotra

HONORS and FELLOWSHIPS

02/2016 **Alpha Omega Alpha Honor Medical Society**

Since 09/2014 Fellow, International Academy of Cardiovascular Sciences

Since 04/2013 Fellow, American Physiological Society

07/2009-06/2019 The Peekie Nash Carpenter Endowed Chair in Medicine

Since 10/2001 Fellow, American Heart Association

Since 10/2001 Fellow, Council of Arteriosclerosis, Thrombosis and Vascular Biology

Since 03/2001 Fellow, American Academy of Allergy, Asthma and Immunology

AWARDS, PRIZES, and RECOGNITIONS

10/2023 Selected for the **Jan Slezak Award for Excellence in Cardiovascular Sciences**, to be bestowed upon at the 9th Meeting of International Academy of Cardiovascular Sciences - European Section, to be held October 4-7, 2023, in **Timișoara, Romania**.

05/2017 **Robert F. Kennedy Memorial Award for Teaching Achievement** – the Highest Teaching honor at Creighton University; Presented at the annual commencement ceremony on 13th May 2017

03/2017 **Special Recognition Award for Outstanding contribution as a Teaching Professor, Researcher, and Mentor** by Nebraska and Iowa Physicians of India (NIPI); 11th March 2017

10/2016 **Professor Ricardo Gelpi Award for Excellence in Cardiovascular Sciences**, presented at the annual meeting of the International Academy of Cardiovascular Sciences –South America section, Belo Horizonte, Brazil, 21-23 October 2016.

10/2015 **Professor Bohuslav Ostadal Award for Excellence in Cardiovascular Sciences**, presented at the annual meeting of the International Academy of Cardiovascular Sciences –European section, Belgrade, Serbia, 8-10 October 2015.

- 09/2015 **Distinguished Leadership Award**, International Academy of Cardiovascular Sciences, Winnipeg, Canada; 12 September 2015
- 05/2015 **Distinguished Service Award**, School of Medicine, Creighton University
- 03/2015 **Harpur S. Buttar Oration Award in Cardiovascular Sciences**, International Academy of Cardiovascular Sciences – India section; March 10, 2015, New Delhi, India
- 02/2015 **Keynote speaker** at the 46th Midwest Student Biomedical Research Forum, Omaha, NE; 28 February 2015
- 06/2013 **Best poster presentation award** at the 81st annual meeting of the European Atherosclerosis Society, Lyon, France 2-6 June 2013
- 01/2013 **Award of Excellence by the India Association of Nebraska** in appreciation of outstanding service and contribution to Nebraska Community at large
- 02/2012 **Creighton University Distinguished Faculty Service Award** presented by the President of Creighton University
- 05/2011 **Distinguished Professor Award by the Faculty of School of Medicine**, Creighton University
- 02/2011 **University Research Award**, Creighton University, presented by the President of Creighton University
- 05/2010 **Outstanding Mentor Award by the Faculty**, Creighton University School of Medicine
- 2010-2019 **The Peekie Nash Carpenter Endowed Chair in Medicine**, Creighton University
- 04/2008 **Distinguished Faculty Award**, presented by the Health Sciences Multicultural & Community Affairs (HS-MACA), Creighton University Medical Center
- 04/2006 One of the three nominees for the **Golden Apple Award for Excellence in Teaching** by Medical Students of Creighton University School of Medicine, Omaha, NE
- 10/2001 **Recognition** by the Midwest Chapter of American Association of Physicians of India for the contribution **as a teaching professor, researcher, and mentor**
- 10/2000 **“Man of the Year” Award**, presented by the India Association of Nebraska, USA for the outstanding services to the community at-large in the State of Nebraska
- 05/1998 Creighton University **“Distinguished Research Career Award”** presented by the Faculty, Creighton University School of Medicine.

- 03/1994 **Premier Allergy Research Award**, American Academy of Allergy and Immunology, Milwaukee, WI.
- 05/1990 School of Medicine "**Young Investigator Award**" presented by the Faculty, Creighton University School of Medicine.
- 10/1987 **Morris F. Miller Faculty Development Award** granted by the Health Future Foundation.
- 10/1986 **James M. Keck Faculty Development Award** granted by the Health Future Foundation.
- 10/1986 **American Diabetes Association Travel Award** to attend the University of Virginia/ American Diabetes Association International conference on research and therapeutic issues in diabetes in Charlottesville, Virginia, USA.
- 10/1983 **Dr. Robert F. Furchgott Travel Award** to attend and present a paper at the American Society for Pharmacology and Experimental Therapeutics meeting in Indianapolis, USA.

GRANT SUPPORT

ACTIVE SUPPORT:

1. **R01 HL144125-01 (NIH-NHLBI)**
Principal Investigator: Devendra K. Agrawal
 Title: Novel Approach to Stabilize Atherosclerotic Plaque in Carotid Artery
 Dates of entire project: 06/01/2018– 04/30/2024
 Total amount Awarded: **\$2,863,992**

2. **1R01 HL147662-01 (NIH-NHLBI)**
Principal Investigator: Devendra K. Agrawal
 Title: Novel Molecular Target to Prevent Maturation Failure of Arteriovenous Fistula
 Dates of entire project: 08/01/2019– 07/31/2024
 Total amount Awarded: **\$2,819,916**

GRANTS SUBMITTED/PENDING REVIEW

1. **1R25 AI179582-01 (NIH-NIAID)**
Principal Investigator: Devendra K. Agrawal
 Title: Research Education Program to Promote Diversity in Immunologic and Allergic Diseases
 Dates of entire project: 12/01/2023– 11/30/2028
 Requested Total amount: **\$1,895,400**

2. **1R15 HL (NIH-NHLBI)**
Principal Investigator: Finosh G. Thankam

Co-Investigator: Devendra K. Agrawal

Title: Regenerative Left Ventricular Stromal Cells for the Accelerated Healing of the Infarct Zone

Dates of entire project: 04/01/2024– 03/31/2027

Requested Total amount: **\$428,928**

3. Department of Defense Application submitted May 31, 2023

Principal Investigator: Vikrant Rai

Co-Investigator: Devendra K. Agrawal

Title: Targeting the Novel Molecular Targets to Attenuate Plaque Vulnerability in Carotid Artery

Dates of entire project: 10/01/2024– 09/30/2028

Requested Total amount: **\$2,249,593**

PAST FUNDING

1. R01 HL128063-01 (NIH-NHLBI)

Principal Investigator: Devendra K. Agrawal

Title: Gene and Stem Cell Therapy in Coronary Artery Bypass Graft

Dates and total award of entire project: 03/13/2015– 02/28/2020 **\$2,903,260**

2. R01HL144125-01S1 (NIH-NHLBI)- Diversity Supplement (*a Graduate Research Supplement to support Mr. Kouassi Tata Kouassi, a PhD student*)

Principal Investigator: Devendra K. Agrawal

Title: Novel Approach to stabilize Atherosclerotic Plaque in Carotid Artery

Dates and total award of entire project: 12/26/2018– 06/30/2019 **\$138,308**

3. Dialysis Clinic Inc.

Principal Investigator: Devendra K. Agrawal

Title: Gene Therapy to Induce Maturity of Arteriovenous Fistula in Swine Model

Dates of entire project: 07/01/2018– 06/30/2019; Total Award: **\$249,300**

4. State of Nebraska, Department of Health and Human Services

Principal Investigator: Devendra K. Agrawal

Title: Collagen Phenotype and Inflammation in Shoulder Tendon Tissue in Current Smokers

Dates of entire project: 07/01/2018– 06/30/2019; Total Award: **\$50,000**

5. **Principal Investigator: Devendra K. Agrawal**

Title: Epicardial Adipose Tissue, Obesity, and Inflammation in Atherosclerosis

Dates and total award of entire project: 07/23/2013– 05/30/2018 **\$3,516,675**

6. R01HL116042 (NIH-NHLBI)

Principal Investigator: Devendra K. Agrawal

Title: Vitamin D and Immunomodulation in Coronary Artery Disease

Dates and Total award of entire project: 07/16/2012– 04/30/2018 **\$3,121,285**

7. R01 HL112597 (NIH-NHLBI);

Principal Investigator: Devendra K. Agrawal

Title: "Mesenchymal Stem Cells in the Prevention of Thrombosis and Neointimal Hyperplasia"

Dates and Total award for entire project: 12/01/2011 – 11/30/2017 **\$3,295,563**

8. R01HL104516 (NIH-NHLBI)

Principal Investigator: Devendra K. Agrawal

Title: Gene Therapy with SOCS3 in Intimal Hyperplasia and In-stent Restenosis

- Dates and total award of entire project: 04/01/2011 – 02/28/2017 **\$2,577,718**
9. ICW Technology, Omaha, NE, USA
Principal Investigator: Devendra K. Agrawal
 Title: “Magnesium binding modifiers in the therapy of hypertension and type II diabetes mellitus”
 Dates and Total award for entire project: 01/15/2014 – 02/28/2017 **\$78,400**
 10. 3R01 HL112597-01S1 (NIH-NHLBI Diversity Supplement)
Principal Investigator: Devendra K. Agrawal; (*Postdoctoral Fellow Supplement to support Kokouvi Paul Djossou, MD*);
 Title: “Mesenchymal Stem Cells in the Prevention of Thrombosis and Neointimal Hyperplasia”
 Dates and Total award for entire project: 04/06/2013 – 11/30/2016 **\$298,947**
 11. 3R01 HL112597-01S1 (NIH-NHLBI Diversity Supplement)
Principal Investigator: Devendra K. Agrawal (*a Graduate Research Supplement to support Mr. Yovani Llamas, a PhD student*);
 Title: “Mesenchymal Stem Cells in the Prevention of Thrombosis and Neointimal Hyperplasia”
 Dates and Total award for entire project: 2/06/2012 – 11/30/2016 **\$223,132**
 12. 3R01 HL120659-01S1 (NIH-NHLBI Diversity Supplement)
Principal Investigator: Devendra K. Agrawal
(Graduate Student Supplement to support Kouassi Tata Kouassi, MD)
 Title: “Epicardial Adipose Tissue, Obesity and Inflammation in Atherosclerosis”
 Dates and Total award for entire project: 01/01/2014 – 12/31/2016 **\$113,472**
 13. 3R01HL116042-S1 (Supplement) NIH-Office of Dietary Supplement-NIH Director’s office
Principal Investigator: Devendra K. Agrawal
 Title: Vitamin D and Immunomodulation in Coronary Artery Disease
 Dates and Total award of entire project: 06/01/2014– 04/30/2016 **\$140,000**
 14. 2R01HL073349-09 (NIH-NHLBI)
Principal Investigator: Devendra K. Agrawal
 Title: Apoptosis of Smooth Muscle cells in Carotid Plaques
 Dates and total award of the entire project: 01/01/2010 – 11/30/2015 **\$1,300,500**
 15. 1R01HL090580 (NIH-NHLBI)
Principal Investigator: Devendra K. Agrawal
 Title: Smooth Muscle Cell Proliferation in Human Coronary Artery Bypass Conduits
 Dates and total cost of the entire project: 01/01/2009 – 12/31/2014 **\$1,445,000**
 16. 1R01AI075315 (NIH-NIAID)
Principal Investigator: Devendra K. Agrawal
 Title: TGF-beta, Chloride Channels and Migration of Eosinophils
 Dates and total cost of the entire project: 04/01/2008 – 03/31/2014 **\$1,793,750**
 17. 3R01HL116042-01S1 (NIH-Office of Dietary Supplement-NIH Director’s Office)
Principal Investigator: Devendra K. Agrawal
 Title: Vitamin D and Immunomodulation in Coronary Artery Disease
 Dates and total award cost of entire project: 07/23/2013– 05/30/2014 **\$70,000**
 18. November 2007 – June 2012; **Principal Investigator;** Title: Gene Therapy Program at Creighton University in Occlusive Vascular Diseases; \$1,648,065
 10. July 2009 – June 2012; 1R01HL085680 (NIH-NHLBI) – ARRA Funds; **Principal Investigator;**
 Title: TGF-β, Chloride Channels and Apoptosis of Airway Epithelial Cells **\$874,490**
 11. July 2009 – June 2010; LB692 DHHS State of Nebraska, Nebraska Tobacco Settlement Funds;

- Principal Investigator**; Title: Gene Therapy Program at Creighton University in Occlusive Vascular Diseases **\$458,640**
12. July 2009 – June 2010; LB506 DHHS State of Nebraska, Nebraska Cancer and Smoking-related Diseases; **Principal Investigator**; Title: Flt3-Ligand and Lung Dendritic Cells in Allergic Asthma **\$40,000**
 13. June 2008 – December 2009; R01HL073349-05 S2 (NIH-NHLBI) (Relinquished due to non-joining of the student); **Principal Investigator**; Title: Apoptosis of Smooth Muscle cells in Carotid Plaques – Research Training of a Minority Student (Mr. Chester N. Ashong) **\$17,418**
 14. June 2008 – December 2009; R01HL073349-05 S1 (NIH) **Principal Investigator**; Title: Apoptosis of Smooth Muscle cells in Carotid Plaques – Research Training of a Minority Student (Ms. Tochi O. Ibekwe): Dates and direct cost of entire project: **\$17,418**
 15. January 1, 2004 – December 31, 2008; **National Institutes of Health R01HL073349 (NIH score → 4 percentile)**; **Principal Investigator**; Title: Apoptosis of Smooth Muscle cells in Carotid Plaques. **\$875,000**
 16. July 2008 – March 2009; **TAIHO Pharmaceuticals, Tokyo, Japan**; “Effect of Suplatast tosilate (IPD) on chloride channel function in mouse BALF eosinophils”; **Principal Investigator**; **\$50,000**
 17. July 1, 2008 – June 30, 2009; **Creighton University Nebraska Tobacco Settlement Funds (LB692)**; “Gene Therapy Program at Creighton University in Occlusive Vascular Diseases”; **Principal Investigator**; total direct cost awarded **\$452,607**
 18. September 1, 2008 – June 30, 2009; **Creighton University Nebraska Tobacco Settlement Funds (LB692)**; “Angiographic and Fluoroscopic Facility for Large Animals at Creighton: Purchase of C-arm; **Principal Investigator**; **\$170,000**
 19. July 2008 – June 2009; **Nebraska Cancer and Smoking-related Disease Program (LB506); State of Nebraska**, Department of Health and Human Services; “Protein kinase C isozymes and chloride channels in asthma”; **Principal Investigator**; **\$40,000**
 20. March 2008– February 2009; **National Institutes of Health Application #3R01 HL070885-01A2S1** for Minority Graduate Student (Halvor Sim McGee) Supplement; Total cost awarded **\$22,960**
 21. March 2004 – February 2009; **National Institutes of Health #1R01AI070885**; Flt3-Ligand, Immunomodulation and Therapy in Asthma; **Principal Investigator**- Total cost funded for four years **\$948,428**
 22. January 2005 – May 2008; **National Institutes of Health**; Supplement to the grant application #3R01HL073349 for Minority Graduate Student (Edward P. Moran) Supplement; Total cost awarded **\$171,000**
 23. July 2007 – September 2008; **Sepracor Inc., Marlborough, MA**; “Comparative effects of the enantiomers of formoterol on importins in human bronchial smooth muscle cells”; **Principal Investigator**; **\$98,250**
 24. July 1, 2007 – June 30, 2008; **Department of Health Nebraska; Cancer and Smoking-related Diseases Program (LB 506-2008-01)**; “Chloride channels in mouse bronchial epithelial cells”; **Principal Investigator**; **\$40,000**
 25. November 1, 2007 – June 30, 2008; **Creighton University Tobacco Settlement Funds (LB692)**; “Gene Therapy Program at Creighton University in Occlusive Vascular Diseases”; **Principal Investigator**; total direct cost awarded **\$240,775**.
 26. September 2004 – February 2008; **National Institutes of Health Application #3R01 HL070885S1** for Minority Graduate Student Assistantship; Total cost awarded **\$149,625**.
 27. July 1, 2006 – June 30, 2007; **Nebraska Cancer and Smoking-related Disease Program (LB506)**; State of Nebraska, Department of Health and Human Services; “CLC-3 Channels

- and apoptosis of airway epithelial cells”; **Principal Investigator; \$40,000.**
28. April 2006 – March 2007; **Sepracor Inc.**; “Both AP-1 and CREB amplify NF-kB-induced Pro-inflammatory and Pro-constrictory Effects of (S)-Albuterol and (RS)-Albuterol”; **Principal Investigator.**
 29. April 2006 – March 2007; Vice President for Health Sciences Discretionary Funds, Creighton University; “Restenosis in Coronary Artery Bypass Graft”; **Principal Investigator; Total direct cost awarded \$50,000.**
 30. July 2005 – June 2006; **Nebraska Department of Health, Nebraska Cancer and Smoking-Related Diseases**; “Survivin in TRAIL-induced apoptosis in breast cancer”; **Principal Investigator; \$40,000.**
 31. July 2005 – March 2006; TAIHO Pharmaceuticals Inc., Tokyo, Japan; “Characterization of Suplatast tosilate (IPD) binding sites in human airway epithelial cells”; **Principal Investigator**
 32. September 2004 – September 2005; Nebraska Tobacco Settlement Funds (LB692) through Creighton University; “Restenosis in Coronary Artery Bypass Graft”; **Principal Investigator; Total direct cost awarded \$100,000**
 33. July 2004 – December 2005; Sepracor Inc., Marlborough, MA: “Is the intracellular (S)-Albuterol Binding site a part of the Transcription factor, NF-kB and acts as Amplification Loop in Inflammation?” **Principal Investigator**
 34. July 2004 – December 2005; Sepracor Inc., Marlborough, MA: “Class Specificity of (S)-Albuterol Binding Sites in Human Airway Smooth Muscle Cells”. **Principal Investigator**
 35. January 2004 – December 2004; TAIHO Pharmaceuticals, Tokyo, Japan, “Chloride channel in airway epithelial cells: Effect of Suplatast tosilate”; **Principal Investigator**
 36. January 2004 – December 2004; Sepracor Inc., “Further characterization of (S)-albuterol binding sites in human airway smooth muscle cells”; **Principal Investigator**
 37. April 2004 – December 2004; **Hybridon, Inc.**, Cambridge, MA: “Effect of Hybridon compounds on the reversal of allergic airway inflammation in an established asthma model. **Principal Investigator**
 38. July 2004 – March 2005; TAIHO Pharmaceuticals Inc., Tokyo, Japan; “Interaction of Suplatast tosilate (IPD) with chloride channels in human blood eosinophils and human airway epithelial cells”; **Principal Investigator**
 39. July 2003 – June 2004; Nebraska Department of Health; Cancer and Smoking-related Disease Program; “Chloride channels in eosinophils and bronchial asthma”; **\$40,000; Principal Investigator**
 40. January 2003-March 2004; **National Institutes of Health**; Immune Tolerance Network; Subcontract #3104sc; Prime Subcontract Number N01-AI-15416. “Phase II, Double Blinded, Placebo-Controlled, Efficacy and Safety Evaluation of Allergen Immunotherapy Co-Administered with Omalizumab, and Anti-IgE Monoclonal Antibody”; **\$1,356,000; Co-investigator – 25% efforts**
 41. May 2003 – May 2004; TAIHO Pharmaceuticals, Tokyo, Japan; “Mechanisms underlying anti-allergic effects of Suplatast tosilate (IPD); **\$50,000; Principal Investigator**
 42. May 2003 – March 2004; Hybridon Inc., “Effect of Hybridon oligonucleotides in reversing allergic airway inflammation in mouse model”; **\$84,500; Principal Investigator**
 43. November 2002 – March 2004; Orchid Chemicals & Pharmaceuticals Ltd. (OCID -02-02); “Effect of OCID-1001 on allergic airway inflammation in mouse and guinea pig models”; **\$60,320; Principal Investigator**
 44. November 2002- October 2003; Sepracor Inc.; “Investigation of the (S)-albuterol binding site(s) in Human Airway Smooth Muscle Cells”; **Principal Investigator**
 45. September 2002-August 2003; LB692 Nebraska Tobacco Settlement Funds; “IGF-1 receptors,

- apoptosis and plaque stability”; **\$90,000; Principal Investigator**
46. July 2002 – June 2003: Nebraska Department of Health and Human Services (LB506); “Monocyte ion channels, smoking and vascular diseases”; **\$40,000; Principal Investigator**
47. November 2002 – July 2003; Hybridon Inc., “Effect of Hybridon oligonucleotides in allergic airway inflammation in mouse model”; **Principal Investigator**
48. April 2002-June 2003; TAIHO Pharmaceuticals, Tokyo, Japan; “Suplatast tosilate (IPD) and ion channels in human blood eosinophils and human bronchial epithelial cells”; **Principal Investigator**
49. September 2001-August 2002; LB692 Nebraska Tobacco Settlement Funds; “IGF-1 receptors, apoptosis and plaque stability”; **Principal Investigator**
50. September 2001- December 2002; Sepracor, Inc.: “Effect of tecastemizole on early and late phase response, and airway hyperresponsiveness in antigen-sensitized mice, and on antigen-induced delayed pulmonary eosinophilia”; **Principal Investigator**
51. September 2001- December 2002; Sepracor, Inc.: “Tecastemizole and eosinophil chemotaxis and adhesion to endothelial cells, and production and release of superoxide anions and leukotriene C4 from human blood eosinophils”; **Principal Investigator**
52. February 2001 – June 2001; Magnesium Diagnostics, Inc., “Effect of MDI compounds on blood pressure in hypertensive rats”; **Principal Investigator**
53. November 2000 – December 2001; Ranbaxy Pharmaceuticals, India; “Effect of experimental drugs as anti-asthmatic agents in guinea pigs”; **Principal Investigator**
54. July 2001 – June 2002; Health Future Foundation; “Alleviating the Asthma Epidemic: From Omaha to the World”; **Co-investigator**
55. July 2000 – December 2001: Sepracor, Inc; “Effect of Formoterol stereoisomers on G-proteins, transcription factors and intracellular free Ca²⁺ concentration in human airway smooth muscle cells” – **Principal Investigator**
56. June 2000 – October 2001: Schering-Plough Research Institute, Kenilworth, NJ; “Effect of DL on the apoptosis of human blood eosinophils” – **Principal Investigator**
57. July 2000 – December 2001: TAIHO Pharmaceuticals, Inc., Tokyo, Japan; “Effect of Suplatast tosilate (IPD) on the expression and activity of G-proteins, intracellular free Ca²⁺, and nuclear transcription factors, NF-κB and Fos-Jun in human blood eosinophils and bronchial epithelial cells” – **Principal Investigator**
58. December 1999 – December 2000: Sepracor, Inc., MA; “Effect of Formoterol stereoisomers on early and late phase response and airway hyperresponsiveness in antigen-sensitized mice, and on antigen-induced delayed pulmonary eosinophilia”; **Principal Investigator**
59. December 1999 – October 2000: ISIS Pharmaceuticals, Carlsbad, CA: “Effect of antisense oligonucleotides in a mouse model of bronchial asthma”; **Principal Investigator**
60. August 1999 – April 2000: Atherogenics, Inc., Alpharetta, GA; “Effect of Atherogenics compounds in a mouse model of bronchial asthma”; **Principal Investigator**
61. July 1999 – June 2000: Department of Health, Nebraska; “Smoking and Pathogenesis of Intest Restenosis”; **Principal Investigator**
62. July 2000 – June 2001; Health Future Foundation; “Alleviating the Asthma Epidemic: From Omaha to the World”; **Co-investigator**
63. July 1999 – June 2000; Health Future Foundation; “Alleviating the Asthma Epidemic: From Omaha to the World”; **Co-investigator**
64. March 1999; Guidant Corp., Santa Clara, CA: “Influence of ultrasound on dye uptake in porcine vascular smooth muscle cells”; **Principal Investigator**
65. December 1999 – June 2000; ISIS Pharmaceuticals, Carlsbad, CA: “Effect of Novel drugs in a mouse model of bronchial asthma.” **Principal Investigator**

66. February 1999: Guidant Corp., Santa Clara, CA: "Local Delivery of an Investigational drug into pig coronary artery": **Co-Principal Investigator**
67. January 1999: Guidant Corp., Santa Clara, CA: "Local drug delivery into pig coronary and iliac arteries". **Co-Principal Investigator**
68. November 1998 - March 1999; ISIS Pharmaceuticals, Carlsbad, CA: "Effect of antisense oligonucleotides in a mouse model of bronchial asthma." **Principal Investigator**
69. November 1998; Guidant Corporation; "Comparison of Guidant VI guide wires in producing vascular injury response in a pig model"; **Co-Principal Investigator**
70. September 1998 - June 1999; Schering-Plough Research Institute: "Pre-clinical studies with DCL in human blood eosinophils"; **Co-investigator and Leader of Project 1**
71. July 1998 - June 1999: Health Future Foundation; "Creighton regional center for venous disorder"; **Co-investigator**
72. July 1998 - June 1999: Health Future Foundation; "Alleviating the Asthma Epidemic: From Omaha to the World". **Co-investigator**
73. July 1998- June 1999; Sepracor Inc., Marlborough, MA; "Differential effect of racemic albuterol, (S)-albuterol and (R)-albuterol on early and late phase reactions, airway hyperresponsiveness, and BAL eosinophilia in the guinea pig model of asthma"; **Principal Investigator**
74. July 1998 - June 1999; Nebraska Department of Health and Human Services, Cancer and Smoking Disease Research; "Smoking and Nitric Oxide effects on airway responsiveness"; Co-investigator.
75. July 1998 - June 1999; Nebraska Department of Health and Human Services, Cancer and Smoking Disease Research; "Apoptosis of Vascular Smooth Muscle Cells"; **Principal Investigator**.
76. April 1998- June 1999; TAIHO Pharmaceutical Co, Tokyo, Japan; "Effect of IPD on chemotaxis and cell adhesion molecules expression in human blood eosinophils"; **Principal Investigator**.
77. April 1998-March 1999; Wayne Hughes Institute; "Effect of test compounds vs dexamethasone on early and late phase response, and airway hyperreactivity in antigen-sensitized mice, and on antigen-induced delayed pulmonary eosinophilia. **Principal Investigator**.
78. Department of Veterans Affairs Merit Review Application: "Effects of Cirrhosis on the Pathogenesis of Pneumococcal Infection"; **Collaborator**.
79. January - December 1998: Creighton University Department of Medicine Research Grant; "Cytokines and β -adrenoceptors in Th1 and Th2 cells in bronchial asthma"; **Principal Investigator**.
80. July 1997- June 1998: Health Future Foundation; "Creighton regional center for venous disorder"; **Co-investigator**.
81. July 1997 - June 1998: Health Future Foundation; "Alleviating the Asthma Epidemic: From Omaha to the World". **Co-investigator**.
82. July 1997- June 1998: Health Future Foundation; "The Creighton Vascular Center"; **Principal Investigator** - 25% effort.
83. April 1997 - December 1998: Hoescht Marion Roussel, Clinical Research Division, Kansas City, Kansas: "Protective effect of fexofenadine on β -adrenoceptor desensitization in the airways"; - **Principal Investigator**.
84. August 1996 - June 1998; Drug Research Laboratories, Whitehouse Station, NJ, and Hoescht Marion Roussel, Cincinnati, OH: "Effect of MX7 and Dexamethasone on early and late phase reaction of asthma, and on airway hyperreactivity and bronchoalveolar lavage eosinophilia" - **Principal Investigator**.

85. July 1996 - June 1997: Health Future Foundation; "Comparative effect of Palmaz stent versus wall stent on intimal hyperplasia", **Co-investigator**.
86. July 1996 - June 1997; Health Future Foundation; "The Creighton Vascular Center"; **Co-investigator**-50% effort.
87. January 1996 - December 1996: Bracco Research Program: "Radiographic Contrast Media and Leukocyte Adherence to Cultured Endothelial Cells" - **Co-investigator**.
88. September 1995 - December 1996: Hoescht Marion Roussel; "Determination of the effect of the terfenadine metabolite, Fexofenadine, on inflammatory cell function"; **Co-investigator**.
89. July 1995 - June 1996; Health Future Foundation; "The Creighton Vascular Center"; **Co-investigator**-50% effort.
90. January 1995 - October 1995; Abbott Laboratories, Abbott Park, IL: "Urokinase and leukocyte adherence to endothelial cells"; **Co-investigator**.
91. January 1995 - June 1996; Department of Health, Nebraska; Pilot project Grant; "Effect of smoking on monocyte integrins for endothelial cell adhesion molecules"; **Co-investigator**.
92. July 1994 - June 1995; Health Future Foundation; "The Creighton Vascular Center"; **Co-investigator**-50% effort.
93. July 1993 - June 1995; Department of Health, Nebraska; "Bicyclic isoquinolines as thromboxane A₂ antagonists"; **Co-investigator**.
94. July 1993 - June 1994; Health Future Foundation; "The Creighton Vascular Center"; **Co-investigator** - 50% effort.
95. July 1992- December 1992: Daiichi Pharmaceutical Co., Tokyo, Japan: "Pre-clinical studies with DP 1904"; **Principal Investigator**.
96. July-1992 - June 1993: Health Future Foundation; "The Creighton Vascular Center"; **Co-investigator**-50% effort.
97. Biomedical Research Support Grant; "Vein preservation and storage solution: The use of the University of Wisconsin solution"; **Co-investigator**.
98. July 1991 - February 1992: Daiichi Pharmaceuticals, Japan; 'Effect of DP 1904 on human blood monocyte function'; **Principal Investigator**.
99. May 1992 - September 1992: American Heart Associate, Nebraska Affiliate: "Cell adhesion molecules on vascular endothelial cells: Effect of kinases on the adhesion of human blood neutrophils"; **Sponsor and Supervisor** of summer student fellowship.
100. April 1991- December 1991: The Purdue Frederick Company, Norwalk, CT.: "Effect of PF compounds on the release of cytokines"; **Principal Investigator**.
101. January 1991 - December 1991: The Purdue Frederick Company, Norwalk, CT.: "Evaluation of anti-inflammatory drugs"; **Principal Investigator**.
102. January 1991- December 1991: Daiichi Pharmaceutical Co., Tokyo, Japan; "Effect of DP 1904 on PAF receptors"; **Principal Investigator**.
103. January 1991- March 1992: Ciba-Geigy Pharmaceutical Company, NJ: 'Effect of Formoterol on β -adrenoceptors'; **Principal Investigator**.
104. 1990-1991: Biomedical Research Support Grant; "Effect of neuropeptides on lymphocyte function and airway smooth muscle"; **Supervisor** and co-investigator.
105. 1990-1991; Biomedical Research Support Grant; "Regulation of Monocyte function"; **Supervisor** and co-investigator.
106. 1990-1991; Biomedical Research Support Grant; "Gastrin Receptors on human blood eosinophils"; **Supervisor** and Co-investigator.
107. January 1990 - January 1991: The Purdue Frederick Company, Norwalk, CT.; entitled 'Pre-clinical Testing of Purdue Frederick Drug Candidates': **Principal Investigator**.
108. August 1989 - June 1990: Daiichi Pharmaceutical Co., Ltd., Tokyo, Japan, entitled "Effect of

- Midaglizole on cAMP Production in Human Blood Neutrophils and Lymphocytes"; Co-investigator.
109. August 1989 - June 1990: Daiichi Pharmaceutical Co., Ltd., Tokyo, Japan, entitled "Effect of Midaglizole on Beta-adrenoceptors and Calcium Channels in Guinea Pig Airways"; **Principal Investigator.**
 110. July 1989 - December 1990: National Institute of Health; entitled "Effect of Platelet-activating Factor on Osteoclasts"; **Principal Investigator.**
 111. January 1989 - March 1990: The Purdue Frederick Company, Norwalk, Conn., USA, entitled "Testing of PAF and LTB₄ Receptor Antagonists in Human Blood Neutrophils"; **Principal Investigator.**
 112. October 1988 - September 1989: Health Future Foundation; entitled "The *in vitro* Effect of PAF on the Bone Resorption Capacity of Osteoclasts"; Co-investigator.
 113. August 1988 - December 1989: The Purdue Frederick Company, Norwalk, Conn., USA, entitled "Testing of LTB₄ receptor Antagonists in Guinea Pig Spleen"; **Principal Investigator.**
 114. July 1988 - June 1989; Department of Health, Nebraska: entitled "Adrenergic Receptors in Colon Cancer"; Co-investigator.
 115. January 1988 - December 1989: Institut Henri Beaufour Laboratories, Robinson, France, entitled "Studies on BN 52021, a PAF Receptor Antagonist"; **Principal Investigator.**
 116. January 1988 - December 1989: SANDOZ Research Institute Grant; entitled "Mechanism of Action of Ketotifen in the Guinea Pig Model of Asthma"; **Principal Investigator.**
 117. December 1987 - November 1988: Biomedical Research Support Grant, entitled "Role of Platelet-activating Factor and Platelets in Airway Hyperreactivity in Asthmatics", **Principal Investigator.**
 118. October 1987 - September 1988; Health Future Foundation; entitled "Platelet-activating Factor and Signal Transduction Mechanisms in the Airways and Their Involvement in Asthma"; **Principal Investigator.**
 119. July 1987 - June 1988: American Lung Association of Nebraska; entitled "The effect of Platelet Activating Factor on Eosinophil Chemotaxis and Leukotriene C₄ Production", **Principal Investigator.**
 120. November 1986 - October 1987: Health Future Foundation Young Investigator Award, entitled "Epithelium and Airway Hyperresponsiveness in Asthma", **Principal Investigator.**
 121. April 1986 - March 1987: Biomedical Research Support Grant entitled "Role of leukotrienes in chronic experimental asthma" **Principal Investigator.**

CONSULTING POSITIONS AND PROFESSIONAL SERVICES

02/2022	Secretary General and Treasurer, International Academy of Cardiovascular Sciences – North America section, Winnipeg, Canada
01/2022 – Present	Advisory Board Member, Global Young Researchers' Academy
08/2021- 07/2022	Consultant to establish MD-MS and MD-PhD programs in Clinical & Translational Science, Universidad Peruana Cayetano Heredia, Lima, Peru.

- 12/2020 Member of the International Review Panel to select best paper published in the *Journal of Environmental Biology*
- 12/2019 – Present Member, Vice President for Research Planning Committee, Association of Academic Health Centers (AAHC-AAMC)
- 01/2019 Co-convenor of the International Conference: “From Health to Well-being: An Interdisciplinary approach from Fundamental Sciences to Translational Medicine”, at St. Xavier’s College, Mumbai, India 9-11 January 2019
- 09/2015 Organizer and co-Chair of the International Academy of Cardiovascular Sciences-North American Section, annual meeting at Creighton University, Omaha, NE; 10-12 September 2015
- 01/2013 – 2021 Re-elected Member of the Editorial Board, *American Journal of Respiratory Cell and Molecular Biology*
- 01/2009 – 12/2012 Elected Member of the Editorial Board, *American Journal of Respiratory Cell and Molecular Biology*
- 09/2008 – 06/2010 Journal Editor, The Open Immunology Journal-Bentham Science Publications
- 04/2009 – 12/2011 The NIH-NHLBI eMentor
- 07/2005 – 06/2009 Associate Editor, *Journal of Immunology*
- 03/2005 – 03/2010 Elected member of the Editorial Board, *Journal of Allergy and Clinical Immunology*
- 07/1995 – present Associate Editor, *Canadian J. of Physiology and Pharmacology*
- 01/1992 – 12/2001 Editorial Board, *Journal of Pharmacological and Toxicological Methods*, Elsevier's Publication
- 01/1990 – present Regular ad-hoc reviewer of manuscripts for various scientific journals including *Journal of Thoracic & Cardiovascular Surgery*, *Journal of Clinical Investigation*, *Circulation*, *Circulation Research*, *American Journal of Respiratory and Critical Care Medicine*, *Journal of Clinical Pathology*, *Journal of Allergy and Clinical Immunology*, *Journal of Pharmacology and Experimental Therapeutics*, *Journal of Immunology*, *European J. Pharmacology*, *International Immunopharmacology*, *Gastroenterology*, *Frontiers in Immunology*, *Respiration Physiology*, *Coronary Artery Disease*, *Atherosclerosis*, *Annals of Allergy, Asthma and Immunology*, *Drugs, Blood Vessels*, *Arteriosclerosis, Thrombosis and Vascular Biology*, *Journal of Clinical Pathology*, *Pulmonary Pharmacology & Therapeutics*, *Mucosal Immunology*, and many more.

- 07/1989 – 12/1991 Consultant to the International Molecular Discovery Unit of the Purdue Frederick company, Norwalk, CT, USA in the development of anti-inflammatory drugs
- 02/1998 – 12/1999 Consultant to the Wayne Hughes Institute, Minneapolis, MN, in Allergy, Immunology and Infectious Diseases

RESEARCH GRANTS REVIEWER for National and International Organizations

- 10/2022 Reviewer of the Research Grant from the NWO Talent Programme (previously the Innovational Research Incentives Scheme) – Vici - Netherlands
- 09/2022 Expert Reviewer of a PhD Thesis, Nirma University, Ahmedabad, Gujarat, India
- 07/2022 Reviewer of the Research Grant application in the 2022 United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP)
- 07/2022 Reviewer of the Research Grants from the Czech Science Foundation, Prague, Czech Republic
- 07/2022 Reviewer of the Research Grants from the European Science Foundation
- 06/2022 Expert Reviewer of a PhD Thesis, Nirma University, Ahmedabad, Gujarat, India
- 02/2022 Reviewer of the Research Grant, University of Washington Diabetes Research Center, Seattle, WA
- 10/2021 Reviewer of the Research Grant applications for the 2021 United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP)
- 10/2020 Reviewer of the Research Grant from the Austrian Science Fund, Vienna, Austria
- 09/2020 Consultant and Reviewer of the Doctoral Program in *“Immunity in Cancer and Allergy”*, FWF Science & Medicine Austrian Science Fund, Vienna, Austria
- 06/2020 Reviewer of the Research Grant from the European Science Foundation
- 03/2020 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A-K (20) L Cardiovascular and Respiratory Sciences; Washington, DC, 26-27 March 2020
- 12/2019 Reviewer of the Gulf War SPLD VA Grant Review Panel; Washington, DC; December 6, 2019.
- 08/2019 Chairman of the Grant Review Panel, 2019 United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP); Tysons, Virginia; 26-27 August 2019
- 08/2019 Reviewer of the Research Grant from the Austrian Science Fund, Vienna, Austria

07/2019 Reviewer and Co-Chair of the NIH-CSR-ZRG1 MOSS (R02) SEP

06/2019 Reviewer of the NIH-CSR-ZRG1-VH SEP

05/2019 Reviewer of the S19 SPLD VA Grant Review Panel; Washington, DC; Washington, DC
May 30, 2019

05/2019 Reviewer of the Research Grant applications in the 2019 United States Department of
Defense Congressionally Directed Medical Research Programs (CDMRP)

04/2019 Reviewer of the Research Grant applications in the 2019 United States Department of
Defense Congressionally Directed Medical Research Programs (CDMRP)

03/2019 NIH-CSR F10B NRSA Fellowships Review Panel: ZRG1 F10B–Musculoskeletal and
Oral Sciences, Imaging, Surgery, and Informatics; 26-27 March 2019

03/2019 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A–Cardiovascular and
Respiratory Sciences; Washington, DC, 6-7 March 2019

12/2018 NIH Director’s New Innovator Award DP2 Stage 1 Reviewers’ Panel; ZRG1 MOSS-R
(70); November-December 2018

12/2018 Reviewer of the Gulf War SPLD VA Grant Review Panel; Washington, DC; December
7, 2018.

11/2018 Reviewer and Co-Chair of the NIH-CSR Special Emphasis Panel/Scientific Review
Group- The Lasker Clinical Research Scholar Program; 2019/01 ZRG1 CVRS-S (55)
R; Teleconference; 29th November 2018

11/2018 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A–Cardiovascular and
Respiratory Sciences; Washington, DC, 6-7 November 2018

10-11/2018 **Chairman** of the Grant Review Panel, 2018 United States Department of Defense
Congressionally Directed Medical Research Programs (CDMRP); Defense Medical
Research Program; Heart Disease (HD); October 31 - November 2, 2018; Reston, VA.

10-11/2018 Reviewer of a Grant, Icelandic Research Fund, The Icelandic Centre for Research,
Borgartun, Reykjavik, Iceland

08/2018 Grant Reviewer for the Vinmec Healthcare System, Hanoi, Vietnam

07/2018 Reviewer of the Research Grant application in the 2018 United States Department of
Defense Congressionally Directed Medical Research Programs (CDMRP)

07/2018 NIH-CSR F10B NRSA Fellowships Review Panel: ZRG1 F10B–Musculoskeletal and
Oral Sciences, Imaging, Surgery, and Informatics; 10-11 July 2018

- 06/2018 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A-Cardiovascular and Respiratory Sciences; 21-22 June 2018
- 06/2018 NIH-CSR Skeletal Muscle and Exercise Physiology (SMEP) study section; 4-5 June 2018
- 05/2018 Spring 2018 BL/CS Gulf War Veteran's Illnesses (SPLD) Merit Review Subcommittee; May 31, 2018
- 04/2018 NIH-CSR F10B NRSA Fellowships Review Panel: ZRG1 F10B-Musculoskeletal and Oral Sciences, Imaging, Surgery, and Informatics; 3-4 April 2018
- 03/2018 Reviewer of the Grant Review Panel, 2017 United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP); Defense Medical Research Aid Development Program; Wound and Injury-3; 28-29 March 2018
- 03/2018 Grant Review Panel of the NIH-CSR- Vascular Hematology Special Emphasis Panel/Scientific Review Group 2018/05; ZRG1 (VH); 27th March 2018
- 03/2018 Grant Review Panel of the NIH-CSR- Musculoskeletal Physiology Special Emphasis Panel/Scientific Review Group 2018/05; ZRG1 MOSS-C (02); 16th March 2018
- 03/2018 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems; 8-9 March 2018
- 12/2017 Reviewer of the BLR&D and CSR&D Award for Research on Gulf War Veteran's Illness (GWVI [101]) Grant Review Panel; Veteran Health Administration
- 12/2017 Mail Reviewer of the NIH Director's New Innovator Award DP2 Grant Review Panel 2017-2018 Stage 1, ZRG1 MOSS-R (70)R
- 12/2017 Reviewer of the Full Grant Review Panel, 2017 United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP); PRMRP DIS-Heart Disease Focussed Program; 8-10 December 2017
- 11/2017 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 26-27 June 2017 (Invited but declined due to schedule conflict)
- 09/2017 Member of the Program Project Review Panel and Hearing/Interim Evaluation of the Doctoral Programme in "Immunity in Cancer and Allergy" in Vienna, Austria; 29 September 2017
- 08-09/2017 Online Reviewer of the Grant Review Panel, 2017 United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP); PRMRP-Disease Focussed Program
- 06-07/2017 Grant Review Panel of the Czech Science Foundation; Czech Republic

- 06-07/2017 NIH-NIAID ZAI1 KP-M(S1) Special Emphasis Panel to review R13 applications
- 06/2017 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 26-27 June 2017
- 06/2017 US Veterans Administration Merit Reviews: Gulf War Illnesses Grant Review Panel; 06/01/2017
- 05/2017 Kansas City Area Life Science Institute Patton Trust Grant Review Panel; 05/19/2017
- 05/2017 Center for Translational and Basic Research Hunter College Seed Funds Grant Review Panel; 05/11/2017
- 04/2017 NIH-NIAID Extramural Loan Repayment Program for Clinical Research and Pediatric Research (LRP-CR and LRP-PR) - ZAI1-EC-M(S1); 04/17/2017 - 04/21/2017
- 04/2017 Life Sciences Grant Review Panel of the National Science Centre, Krakow, Poland; 04/03/2017
- 03/2017 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 23-24 March 2017
- 02/2017 Grant Review Panel of the NIH-CSR- Vascular Hematology Special Emphasis Panel/Scientific Review Group 2017/05; ZRG1 (VH)
- 01/2017 Joint Research Projects Grant Reviewer: Austrian Science Fund, Vienna, Austria
- 12/2016 - 01/2017 Grant Reviewer of the Medical Research Council, United Kingdom
- 12/2016 United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP); PRMRP Focused Program Panel Reviewer; December 2016
- 11/2016 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 3-4 November 2016; Arlington, VA
- 09/2016 Grant Review Panel of the NIH-NIEHS Program Project Special Emphasis Panel/Scientific Review Group 2017/01 ZES1 LWJ-K (S2) 1; 2nd September 2016 IAM
- 08-09/2016 **Chairman and Reviewer**; United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP); Discovery Award- Vascular Malformations (VM) Peer Review Panel; August-September 2016

- 06-07/2016 Grant Review Panel of the United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP); Preapplication - Vascular Malformations (VM) Peer Review Panel; June-July 2016
- 7/2016 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 18-19 July 2016; Chicago, IL
- 5/2016 Agence Nationale de la Recherche (ANR), France Programme 2016 grant review panel May-June 2016
- 4/2016 NIH-NIAID Extramural Loan Repayment Program for Clinical Research and Pediatric Research (LRP-CR and LRP-PR) - ZAI1 AWA-M(S1); 04/24/2016 - 04/30/2016
- 4/2016 NIH-CSR - NIH Director's Early Independence Award (DP5) - ZRG1 RPHB-W 53 R - mail reviewer 11 April 2016
- 3/2016 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 9-10 March 2016
- 2/2016 NIH-CSR Aging Systems and Geriatrics Study section - mail reviewer 29 February - 1 March 2016
- 12/2015 VA Merit Review Panel - SPLD; 11 December 2015
- 12/2015 **Chairman and Reviewer;** United States Department of Defense Congressionally Directed Medical Research Programs (CDMRP); Vascular Malformations (VM) Peer Review Panel; December 2, 2015
- 11/2015 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 23-24 November 2015
- 10/2015 DoD-CDMRP FY15 Peer Review Panel of Congressionally Directed Medical Research Program, MRMC-BAA Combat Casualty Care; October 2015
- 10/2015 NIH-CSR Vascular and Hematology (VH) IRG Special Emphasis Panel: 26-27 October 2015
- 09/2015 United States Army Medical Research and Materiel Command; DoD Broad Agency Announcement for Extramural Medical Research Panel; W81XWH-BAA-15-1; September 2015
- 07/2015 DoD-CDMRP FY15 Peer Review Panel of Congressionally Directed Medical Research Program, Pre-application Stage of the Congenital Heart Diseases Program; July 2015
- 07/2015 DoD-CDMRP FY15 Peer Review Panel of Congressionally Directed Medical Research Program, Pre-application Stage of Acute Lung Injury Program; July 2015

07/2015 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 30-31 July 2015

06/2015 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases (HAI) Study Section; 4-5 June 2015

05/2015 NIH-CSR NHLBI Systems Biology Review Panel; 2015/10 ZRG1 VH-D (55) 18-19 May 2015

04/2015 NIH-CSR Members Conflict Special Emphasis Review Panel: ZRG1 VH-N (02)M 23-24 April 2015

03/2015 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 16-17 March 2015

02/2015 NIH-CSR Special Emphasis Review Panel; ZRG1 IMM-D (90)S, "Autoimmune and Airways Inflammatory Disease"; 24 February 2015

02/2015 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases (HAI) Study Section; 5-6 February 2015

01/2015 NIH-CSR NHLBI Systems Biology Grants Review Panel 2015/05 ZRG1 VH-D (55); 22 - 23 January 2015

01/2015 Ministry of Health of the Czech Republic National Priority Health Population P02 Grant Review Panel - 20 January 2015

12/2014 DoD-CDMRP FY14 Peer Review Panel of Congressionally Directed Medical Research Program, Vienna, VA; 8-9 December 2014

12/2014 NIH-CSR F10A NRSA Fellowships Review Panel: ZRG1 F10A- Physiology and Pathobiology of Cardiovascular and Respiratory Systems 1-2 December 2014

10/2014 Member of the Panel for Hearing Evaluation of Program Project Grant of Austrian Science Fund on "Immunity in Cancer and Allergy" in Vienna, Austria; 9 October 2014

10/2014 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases (HAI) Study Section; 9-10 October 2014 (Teleconference from Vienna)

10/2014 NIH-CSR Applications Comparison Pilot Program Panel; 6 October 2014

8/2014 Member of the Grant Review Panel of Austrian Academy of Sciences, Vienna, Austria; August-September 2014

08/2014 NIH-NHLBI Ancillary Study in Clinical Trials (R01)-Special Emphasis Panel ZHL1 CSR-I (M1) 1; 22 August 2014

07/2014 MRC-UK 2014 Grant Review Panel

07/2014 Swiss National Science Foundation 2014 Grant Review Panel

06/2014 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases (HAI) Study Section; 5-6 June 2014

05/2014 Asthma UK Innovation Grants 2014 Review Panel

04/2014 NIH-CSR Member Conflict: Immune Mechanism; Special Emphasis Panel ZRG1 IM-N (03) M; 14 April 2014

04/2014 NIH-NHLBI Ancillary Study in Clinical Trials (R01)-Special Emphasis Panel ZHL1 CSR-I (M1) 1; 11 April 2014

03/2014 NIH-NIMHD Basic and Applied Biomedical Research on Minority Health and Health Disparities (R01)- Special Emphasis Panel ZMD1 MLS (02); 12-13 March 2014

03/2014 NIH-NIAID Investigator Initiated Program Project Applications (P01) 2014/05 ZAI1 BDP-I (M1) 1; 10-11 March 2014

02/2014 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases (HAI) Study Section; 6-7 February 2014

12/2013 American Academy of Allergy, Asthma, and Immunology APFED/ARTrust Hope Award Grant Review Panel

12/2013 NIH-CSR Special Emphasis Panel ZRG1 HAI-D (08)F Airway Hypersensitivity Syndrome; 4 December 2013

12/2013 American Academy of Allergy, Asthma, and Immunology ARTrust K&R Bridge Award Grant Review Panel

11/2013 Grant Review Panel (Winter session) of the Austrian Science Fund, Vienna, Austria on "Investigator Development Award" of Stand-Alone Project

11/2013 NIH-CSR NeuroAIDS and other End-organ Diseases (NAED) Study Section; 14 November 2013

11/2013 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases) Study Section; 14-15 November 2013

8/2013 Grant Review Panel (Summer session) of the Austrian Science Fund, Vienna, Austria on "Investigator Development Award" of Stand-Alone Project

8/2013 LYTMOS: James and Esther King Biomedical Research Program, State of Florida Grant Review Panel

- 8/2013 NIH-CSR Special Emphasis Panel ZRG1 VH-B (02) S; Vascular and Hematology Grants; 14 August 2013
- 7/2013 Veteran's Affairs - Grant Review Panel on CSR&D Award for research on Gulf War Veterans Illnesses (GWVI); 25 July 2013
- 6/2013 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases) Study Section; 6-7 June 2013
- 5/2013 LYTMOS: Kansas City Area Life Science Institute Patton Research Grant Review Panel
- 5/2013 Grant Review Panel of the Austrian Science Fund, Vienna, Austria
- 4/2013 NIH-NHLBI Ancillary Studies to Clinical Trials Review Panel; 23 April 2013, Bethesda, MD
- 4/2013 American Heart Association Grant Review Panel- Molecular Signaling 3 Study Section
- 2/2013 Veterans Affairs - Grant Review Panel for Gulf War Illnesses and Military Environmental Exposures; 11 February 2013
- 2/2013 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases) Study Section; 7-8 February 2013
- 1/2013 Review Panel of Scientific Programs, Shota Rustaveli National Science Foundation, Tbilisi, Georgia
- 1/2013 American Academy of Allergy, Asthma, and Immunology APFED/ARTrust HOPE Award Review Panel
- 12/2012 American Academy of Allergy, Asthma, and Immunology K&R Bridge Grant Award Review Panel
- 11/2012 NIH-NHLBI BAA-NHLBI-CSV-HV-2013-02-JS Vascular Interventions/ Innovations and Therapeutic Advances (VITA) Stage-A (Concept to Proof and Principle) and Stage B (Proof of Principle to IND or IDE); 15-16 November 2012
- 10/2012 NIH Special Emphasis Panel/Scientific Review Group; Member Conflicts: Immunologic Mechanisms; 2013/01 ZRG1 IMM-G (02) M meeting; 17 October 2012
- 10/2012 China-Israel Cooperative Scientific Research jointly with the Ministry of Science and Technology, P.R. China and the Ministry of Science and Technology State of Israel
- 10/2012 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases) Study Section; 4-5 October 2012

- 06/2012 CSR-NIH Special Emphasis Panel- Vascular and Hematology Member Conflict- ZRG1 VH-D 90S; 25-26 June 2012
- 05/2012 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases (HAI) Study Section
- 05/2012 NIH-CSR Bioengineering, Technology, and Surgical Sciences (BTSS) study section
- 04/2012 NIH-NHLBI Conference Grant Review Special Emphasis Panel; "NIH Support for Conferences and Scientific meetings (R13); ZHL1 CSR-G M1
- 04/2012 Standing member of the Grant Review Panel; American Heart Association - Molecular Signaling 3 Section
- 03/2012 NIH-NHLBI Heart, Lung, and Blood Program Project Review Panel; "Translational Programs in Lung Diseases", ZHL1 CSR-Q M1
- 02/2012 American Lung Association Research Grant Review Committee, Section B
- 02/2012 NIH-NHLBI Heart, Lung, and Blood Program Project Review Committee, HLBP 1 Workgroup 024
- 02/2012 NIH-CSR Hypersensitivity, Autoimmunity, and Immune-mediated Diseases (HAI) Study Section
- 12/2011 American Academy of Allergy, Asthma, and Immunology K & R Bridge Grant Award Review Panel
- 11/2011 Member of the Grant Review Panel; South African Medical Research Council, Cape Town, South Africa
- 10/2011 CSR-NIH Special Emphasis Panel- Vascular and Hematology Member Conflict- ZRG1 VH-90S; 25-26 October 2011
- 09/2011 Member of the Grant Review Panel; James and Esther King Biomedical Research Program, State of Florida
- 07/2011-06/2015 **Regular Member of the NIH-HAI (Hypersensitivity, Autoimmunity, and Immune-mediated Diseases) NIH-CSR Study Section**
- 06/2011 **Chairman** of the CSR-NIH Special Emphasis Panel- Vascular and Hematology Member Conflict- ZRG1VH-J (02) M; 20-21 June 2011
- 05/2011 Member of the Panel for Hearing/ Interim Evaluation of W 1213-B12: "Immunity in Cancer and Allergy" in Vienna, Austria; 25-26 May 2011
- 03-05/2011 Member of the Grant Review Panel; James and Esther King Biomedical Research Program, State of Florida

04/2011 NIH-NIEHS Special Emphasis Panel for Extramural Loan Repayment Program for Clinical Researchers (NOT-OD-10-106)

04-05/2011 NIH-NIEHS Special Emphasis Panel for Extramural Loan Repayment Program for Pediatric Researchers (NOT-OD-10-107)

04/2011 Grant Review Panel; American Heart Association – Molecular Signaling 3 Study Section

04/2011 Grant Review Panel of the American Academy of Allergy, Asthma & Immunology/Merck Two-Year Postdoctoral Fellowship Award in “Heterogeneity of Therapeutic Responses for Respiratory Diseases”

03/2011 CSR-NIH Special Emphasis Panel- Vascular and Hematology Member Conflict-ZRG1VH-B (02) M; 22-23 March 2011

03/2011 Special NIAID-NIH Review Panel for RFA-AI-10-013, “Asthma and Allergic Diseases Cooperative Research Centers (AADCRC) U19 Program Project Grants – ZAI1 PA-I (M1) 1; 9-11 March 2011

02/2011 CSR-NIH Special Emphasis Panel on Vascular Biology and Hematology – ZRG1 VH-D (02) M; 21-22 February 2011

02/2011 CSR-NIH Vascular Cell and Molecular Biology (VCMB) study section; 7-8 February 2011

12/2010 Grant Review Panel of the American Academy of Allergy, Asthma & Immunology, K and R Award

10-11/2010 Grant Review Panel; Asthma Research Foundation of Western Australia, Perth, Western Australia

10/2010 Grant Review Panel; American Heart Association – Molecular Signaling 3 Section

09/2010 Grant Review Panel of the American Academy of Allergy, Asthma & Immunology, CSL/Behring Young Investigator Award for Primary Immunodeficiency

09/2010 NIH-NHLBI Program Project Review Panel ZHL1 SRC (99)

05/2010 NIH-HAI (Hypersensitivity, Autoimmunity, and Immune-mediated Diseases) NIH-CSR Study Section

05/2010 NIEHS-NIH ZES1 LWJ-G (LR) 1 Clinical and Pediatric Loan Repayment Research Review Panel

04/2010 Grant Review Panel of “Asthma UK” Foundation

04/2010 Grant Review Panel; American Heart Association – Molecular Signaling 3 Study Section

03/2010 Grant Review Panel; James and Esther King Biomedical Research Program, State of Florida

02/2010 NIH ZRG1 IMM-E (02) M Study Section; 24 February 2010

02/2010 NIH ZRG1 SBIB-E (02) M Study Section; 11 February 2010

01/2010 American Academy of Allergy, Asthma, and Immunology K & R Bridge Grant Award Review Committee

01/2010 Grant Review Panel (Biological & Medical Sciences), Austrian Science Fund, Vienna, Austria

10/2009 Grant Review Panel of Georgia National Science Foundation, Tbilisi, Georgia

10/2009 National Science Foundation CHE-2/ARI Review Panel, Arlington, VA; 7-8 October 2009

10/2009 NIH-HAI (Hypersensitivity, Autoimmunity and Immune-mediated Diseases) CSR Study Section; 1-2 October 2009

09/2009 Co-chair, NIH ZRG1 CVRS-J (02) M Study Section; 24-25 September 2009

07/2009 NIH-Minority and Health Disparity Grant Review Panel; 22-24 July 2009

06-07/2009 NIH-NHLBI AsthmaNet Grant Review Panel; 30 June - 1 July 2009

06-07/2009 NIH-NIAID ARRA Challenge Grants in Immunology Panel

05/2009 Ad-hoc reviewer, NIH-HAI Study Section

05/2009 Member, Swiss National Science Foundation Grant Review Panel

05/2009 Member, National Grant Review Committee, Austrian Science Fund

04/2009 NIH-NHLBI Special Emphasis Panel on Smooth Muscle Cells in Clinical Asthma, Washington, DC, 14-15 April 2009

11/2008 Ad-hoc reviewer, VA MERIT (Respiration) Panel, Washington, DC

10/2008 Grant Review Panel of Georgian National Science Foundation

06/2008 Grants Review Panel of the Austrian Science Fund, Austria

11/2007 Grant Review Panel of Georgian National Science Foundation

- 10/2007 Member: NIH-National Institutes of Allergy and Infectious Diseases Special Emphasis Panel for Asthma and Allergic Diseases Cooperative Research Centers (ADCRC)
- 10/2007 Grants Review Panel of the Austrian Science Fund, Austria
- 09/2007 Grants Review Panel of the British Lung Foundation
- 07/2007 - present Elected member of the "Faculty of 1000 Medicine" in the "Allergy, Clinical Immunology and Rheumatology" section.**
- 06/2007 - present Reviewer and Advisory Panel for the "Immunity in Allergy and Cancer" DK Program, Austrian Science Fund, Vienna, Austria
- 03/2007 - 03/2011 Chairman, Committee on Cells and Mediators of Allergic Airway Inflammation, American Academy of Allergy, Asthma, and Immunology**
- 10/2006 Ad-hoc reviewer for Project EXPORT Center grant, University of Illinois College of Medicine, Rockford, IL
- 09/2006 Grants Review Panel of the Austrian Science Fund, Austria
- 08/2006 US-Israel BSF Grant Committee
- 08/2006 Grants Review Panel of the Research Frontiers and Biotechnology Programs, Science Foundation Ireland, Dublin, Ireland
- 03/2006 Member: NIH-National Institutes of Allergy and Infectious Diseases Special Emphasis Panel for Asthma and Allergic Diseases Cooperative Research Centers (ADCRC)
- 02/2006 US-Israel BSF Grant Review Committee
- 02/2006 Grants Review Panel of the Research frontiers and Biotechnology Programs, Science Foundation Ireland, Dublin, Ireland
- 01/2006 Peer-Review Panel for Wellcome Trust, United Kingdom
- 11/2005 Ad-hoc member: NIH Special Emphasis Panel - Cardiovascular IRG Endothelial Cells and Inflammation
- 10/2005 Ad-hoc member: NIH Hypersensitivity, Autoimmune and Immune-mediated Diseases (HAI) Study Section
- 07/2005 - 06/2009 Regular Member of the NIH Lung, Cellular and Molecular Immunobiology (LCMI) Study Section**
- 06/2005 Ad-hoc member: NIH Hypersensitivity, Autoimmune, and Immune-mediated Diseases (HAI) Study Section

- 06/2005 Ad-hoc member: NIH Special Emphasis Panel of the LCMI Study Section
- 02/2005 Ad-hoc member: NIH Hypersensitivity, Autoimmune and Immune-mediated Diseases (HAI) Study Section
- 10/2004 Ad-hoc member: NIH Lung Injury, Repair and Remodeling (LIRR) Study Section
- 10/2004 Ad-hoc member: NIH Hypersensitivity, Autoimmune and Immune-mediated Diseases (HAI) Study Section
- 07/2004 – 06/2007 **Standing Member, VA Merit Review Panel for RESPIRATION**
- 07/2004 Ad-hoc Member: NIH Special Emphasis Panel of Renal Physiology, ZRG1 RUS-D
- 06/2004 Ad-hoc Member: NIH Hypersensitivity, Autoimmune and Immune-mediated Diseases (HAI) Study section
- 05/2004 Member: Department of Defense – Army Review Panel for Respiratory Diseases & Pulmonary Injury Study section
- 05/2004 Member: Department of Defense – Army Review Panel for Muscle Function Research & Muscular Dystrophy Study section
- 03/2004 Ad-hoc Member: NIH Vascular Cell and Molecular Biology (VCMB) Study section
- 02/2004 Ad-hoc Member: NIH Lung Cellular and Molecular Immunobiology (LCMI) Study section
- 08/2003 – 06/2004 Ad-hoc Member: VA Merit Review Panel for RESPIRATION
- 02/1992 - 08/2003 Ad-hoc Reviewer of grant applications from the National Science Foundation, American Heart Association, Canadian Heart Foundation, Canadian Geriatric Society, Medical Research Council of Canada, NIH, VA Merit Review Grant applications, and BSF and US grant applications.

MEMBERSHIP in PROFESSIONAL SOCIETIES

- 1986- present Regular member of the American Association for the Advancement of Science (AAAS)
- 1987- present Regular member of the American Academy of Allergy, Asthma & Immunology (AAAAI)
- 1987- present Regular member of the American Thoracic Society (ATS)

- 1988- present Regular member of the American Society for Pharmacology and Experimental Therapeutics (ASPET)
- 1988- present Regular member of the American Society for Biochemistry & Molecular Biology (ASBMB)
- 1989-1999 Member of the Phi Beta Delta- Honor Society for International Scholars
- 1999- present Regular member of the American Heart Association (AHA)
- 1999-present Regular member of the American Association of Immunologists (AAI)
- 2000-present Regular member of the European Academy of Allergology and Clinical Immunology (EAACI)
- 2008-present Regular member of the American Society for Investigative Pathology (ASIP)
- 2009-present Regular member of the American Society for Bone and Mineral Research (ASBMR))
- 2009-present Regular member of European Atherosclerosis Society (EAS)
- 2010-present Regular member of American Physiological Society (APS)
- 2017 – present Regular Member of the Society for Biomaterials & Artificial Organs (India)

INVITED FACULTY/LECTURES/KEYNOTE SPEAKER

- 10/2023 Invited keynote speaker at the 9th Meeting of International Academy of Cardiovascular Sciences - European Section, to be held October 4-7, 2023 in **Timișoara, Romania**; Lecture title: *“Novel Therapeutic Targets to Prevent Atherosclerotic Plaque Burden and Rupture”*
- 09/2023 Invited speaker and Chair of a session, 10th Annual Meeting of the International Academy of Cardiovascular Sciences – North America section, to be held September 7-9, 2023, **Tampa, FL**.
- 06/2023 Invited speaker (Virtually) at the 12th International Congress of Cardiology and Diabetes, to be held in **Kosice, Slovakia**, June 9-10, 2023; Lecture title: *“Cardiovascular complications of Long COVID-19”*.
- 05/2023 Plenary Lecture speaker (Virtually) at the First HiSTCon 2023 – National Conference on Himalyan Science and Technology 2023, Shoolini University, Solan, HP, India, May 20, 2023; Lecture title: *“Translational Science: Sustainable development in the Himalayas”*.

- 02/2023 Invited speaker at the Annual meeting of the IACS-ISHR – India section on “*Advances in Cardiovascular Medicine and Research – 2023*” held at the Postgraduate Institute of Medical Sciences, **Chandigarh, India**; February 16-18, 2023; Lecture title: “*Rejuvenation of “Broken Heart” with Smart Exosomes and Intelligent Hydrogels*”.
- 02/2023 Invited keynote speaker in the Department of Biotechnology, Punjab University, **Chandigarh, India**; 16 February 2023. Lecture title: “*Novel Treatment Strategies to Attenuate Plaque Vulnerability in Atherosclerosis*”.
- 01/2023 Organized a Plenary Session on “*Complications of COVID-19 – Long COVID*”, co-chaired and keynote speaker of the session at the Indian Science Congress, **Nagpur, India**; January 03-07, 2023.
- 10/2022 Invited speaker and chair of a session at the International Society of Adaptive Medicine, **Orlando, FL**; October 25-28, 2022.
- 09/2022 Invited speaker, Chair of a session, and judge of the poster session at the 8th European Section of the International Academy of Cardiovascular Sciences; **Szeged, Hungary**; September 27 – October 1, 2022.
- 09/2022 Invited speaker, Chair of a session, Judge of Young Investigator Award, International Academy of Cardiovascular Sciences and International Society of Heart Research annual meeting, **Winnipeg, Canada**; September 05 – September 09, 2022.
- 08/2022 Invited Plenary Session a keynote speaker, International Congress on Diabetic Foot Ulcer, **Varadero, Cuba**; August 30 – September 04, 2022.
- 02/2022 Invited Plenary Session a keynote speaker, 6th Nirma Institute of Pharmacy International Conference jointly organized with Indian Pharmacological Society (NIPiCON-IPS) February 19, 2022, **Ahmedabad, India**.
- 11/2021 Invited speaker, Brigham Young University, Provo, UT; “*Pathological Features of Rotator Cuff Tendon Injury: Potential Treatment Strategies to Enhance Healing Response*”; November 17, 2021.
- 09/2021 Invited speaker at the 7th European Section and 8th North American section International Academy of Cardiovascular Sciences; **Banja Luka, Serbia**; September 20-23, 2021
- 02/2021 Keynote Speaker at the International Seminar on Recent Biochemical Approaches in Therapeutics (RBAT-VII) – 2021; February 9, 2021
- 09/2020 Invited Speaker at the International Webinar on Science and Technology for Sustainable Development, Indian Science Congress; September 19, 2020
- 02/2020 Co-Chair and Invited speaker at the International Conference of Cardiovascular Sciences (ICCS-2020) focused on the “*Convergence of Clinicians and Scientists for Cardiovascular Health*”; **Delhi, India**; February 21–23, 2020

- 02/2020 Invited keynote speaker as an Eminent Scientist at the Guru Nanak Dev University, **Amritsar, Punjab, India** "*Vitamin D Deficiency and Coronary Artery Disease*"; February 19–20, 2020
- 01/2020 Chair and Invited speaker in a Plenary session at the 107th Indian Science Congress, **Bangalore, India**: 3-7 January 2020.
- 11/2019 Invited speaker to deliver a lecture on the Pathogenesis and Novel Treatment Strategies at the Central Drug Research Institute, **Lucknow, India**, 26-27 November 2019
- 11/2019 Invited speaker in a series of symposia at the Delhi Pharmaceutical Sciences and Research University, **New Delhi, India**, 21-25 November 2019
- 08/2019 Invited Speaker at the XIII Intencicardio – Brazilian Congress of Intensive Cardiology in **Brasilia, Brazil**; 14-17 August 2019
- 09/2019 Invited speaker at the 6th Meeting of European Section and 7th Meeting of North American Section of the International Academy of Cardiovascular Sciences, **Vrnjacka Banja, Serbia**; 11-15 September 2019
- 02/2019 Invited Keynote Speaker at the 11th India Section Meeting of the International Academy of Cardiovascular Sciences (IACS-India), NIHANS Convention Center, **Bangalore, India**; 15-17 February 2019 (Cancelled due to conflict)
- 01/2019 Co-convener and speaker, international conference entitled "From Health to Well Being: An Interdisciplinary Approach from Fundamental Sciences to Translational Medicine"; St. Xavier's College, **Mumbai, India**; 9-11 January 2019
- 01/2019 Invited speaker in a Plenary session at the 106th Indian Science Congress, **Jalandhar, Punjab, India**; 3-7 January 2019
- 11/2018 Invited Speaker at the 28th Scientific Forum of the International Congress of Cardiovascular Sciences in **Maceio, Brazil**; 22-24 November 2018
- 09/2018 Invited speaker at the 4th Congress of Physiological Sciences of Serbia with International Participation: "Current Trends in Physiological Sciences: From cell signals to the biology of aging", University of NIS, **NIS, Republic of Serbia**; 19-23 September 2018
- 05/2018 Invited speaker at the 5th European Section meeting of the International Academy of Cardiovascular Sciences (IACS-ES): Advances in Cardiovascular Research – from basic mechanisms to therapeutic strategies, **Bratislava, Slovakia**; 23-26 May 2018
- 04/2018 Invited speaker at the Neurocardiology International Conference, **Dubai, UAE**; 9-11 April 2018 (Declined due to conflict)

- 02/2018 Invited Speaker at the 10th India Section Meeting of the International Academy of Cardiovascular Sciences (IACS-India), Madurai Kamaraj University, **Madurai, India**; 8-10 February 2018
- 01/2018 Invited to organize and chair a plenary symposium on cardiovascular and metabolic diseases at the 105th Indian Science Congress, **Hyderabad, India**; 3-7 January 2018 (Postponed to March 2018 – to be held at **Imphal, Manipur, India**)
- 11/2017 Invited Speaker at the International Conference on Advances in Degenerative Diseases and Molecular Interventions, **Trivandrum, Kerala, India**; 23-24 November 2017
- 11/2017 Invited Speaker at the International Symposium, “Molecular Medicines for Lifestyle Diseases: Emerging Targets and Approaches”; **CSIR-CDRI, Lucknow, UP, India**; 20-21 November 2017
- 10/2017 Invited Speaker and Poster Reviewer at the 6th Asian Biomaterial Congress: Innovative Biomaterials: Technologies for Life and Society; **Trivandrum, Kerala, India**; 25-27 October 2017
- 10/2017 Invited Speaker at the Cardiovascular Research Meeting in **Belgrade, Serbia**, 2-3 October 2017
- 09/2017 Invited Speaker at the 4th European Section Meeting of the International Academy of Cardiovascular Sciences (IACS-ES) in **Pécs, Hungary**; 28-30 September 2017
- 09/2017 Invited Speaker and Chair of a session at the 5th Annual Midwest Conference on Cell Therapy and Regenerative Medicine, University of Kansas Medical Center, Sheraton Overland Park Hotel, **Overland Park, Kansas**, 15-16 September 2017
- 08/2017 Invited Speaker at the 5th North American Section Meeting of the International Academy of Cardiovascular Sciences (IACS-NA) in **Orlando, FL**; 31 August - 02 September 2017 (Declined due to conflict in the schedule)
- 07/2017 Invited speaker at the 5th Argentina-Brazil Postdoctoral Joint Meeting on Cardiovascular Sciences, **Buenos Aires, Argentina**, 21 July 2017
- 06/2017 Invited Faculty, VCU Interdepartmental Seminar Series for Excellence in Cardiovascular and Kidney Research, Virginia Commonwealth University, **Richmond, VA**; 29-30 June 2017
- 04/2017 85th European Atherosclerosis Society Congress, **Prague, Czech Republic**, 23-26 April 2017
- 04/2017 Invited Faculty at the 9th International Congress of Cardiovascular Disease and Diabetes, **Dubai, UAE**; 7-9 April 2017.

- 03/2017 Invited Speaker at the American Association of Physicians of India – Midwest Chapter; **Omaha, NE**, 11 March 2017
- 02/2017 Invited speaker at the 9th International Conference of the Academy of Cardiovascular Sciences, **New Delhi, India**; 9-11 February 2017 (declined)
- 12/2016 Invited speaker at the CSIR - National Institute for Interdisciplinary Science & Technology (NIIST), **Thiruvananthapuram, India**; 7-9 December 2016.
- 10/2016 Invited speaker at the 7th International Congress of Cardiology, **Cairo, Egypt**, 28-30 October 2016
- 10/2016 Invited speaker at the annual meeting of the International Academy of Cardiovascular Sciences – South America section, **Belo Horizonte, Brazil**; 22-24 October 2016.
- 10/2016 Invited speaker at the annual meeting of the International Academy of Cardiovascular Sciences – European section, **Marseille, France** (on the cruise ship); 1-4 October 2016.
- 09/2016 Invited speaker and Chairman of a session at the annual meeting of the International Academy of Cardiovascular Sciences – North America section, **Sherbrooke, Quebec, Canada**; 22-24 September 2016
- 09/2016 Grand Round Department of Surgery, Creighton University School of Medicine, **Omaha, NE**; “Vulnerable Atherosclerotic Plaques in Carotid Arteries”; 16 September 2016.
- 06/2016 Keynote invited speaker in the International Congress on Biology and Pathology (ICBP2016), **Guangzhou, China**, 25-26 June 2016
- 05/2016 Oral Presentation at the annual meeting of the European Atherosclerosis Society, **Innsbruck, Austria**, 29 May – June 1, 2016
- 02/2016 Invited speaker and the Chair of a Plenary Session at the 8th International Conference on Translational Research in Cardiovascular Science; **Anand, Gujarat, India**; 5-6 February 2016
- 01/2016 Invited speaker and the Chair of a Plenary Session at the 103rd Indian Science Congress, **Mysore, Karnataka, India**, 3-7 January 2016
- 11/2015 Invited speaker at the 11th International Congress on Coronary Artery Disease; **Florence, Italy** 29 November – 2 December 2015

- 11/2015 Invited speaker at the **Scientific Forum** 25th International Congress of Cardiovascular Sciences and South American section of the International Academy of Cardiovascular Sciences; **Vitoria, Brazil** 12-14 November 2015
- 10/2015 Invited speaker at the 26th Great Wall International Congress of Cardiology Asia Pacific Heart Congress 2015: International Congress Cardiovascular Prevention and Rehabilitation 2015, **Beijing, China**; 29 October - 1 November 2015
- 10/2015 Invited speaker at the 6th International Congress of Cardiology meeting, **Dubai, UAE** 23-24 October 2015
- 10/2015 Invited speaker at the European Section 2nd European meeting of the International Academy of Cardiovascular Sciences, **Belgrade, Serbia** 8-10 October 2015
- 09/2015 Invited speaker in the School of Pharmacy, University of Nebraska Medical Center, **Omaha, NE**; 25 September 2015
- 09/2015 Invited speaker in the Pulmonary & Critical Care Medicine Grand Round, Department of Internal Medicine, University of Nebraska Medical Center, **Omaha, NE**; 17th September 2015
- 08/2015 Invited speaker at the 8th International Congress of Cardiovascular Diseases, **Recife, Brazil**; 13-15 August 2015
- 07/2016 Invited speaker at the International Symposium on Surgical Trauma, Colombian Association of Surgery, held at the Central Military Hospital of **Bogota, Colombia** 23-24 July 2015
- 05/2015 Invited speaker at the Institute for Clinical and Translational Science (iCATS), School of Medicine, University of Missouri at Columbia, MO; 11-13 May 2015
- 04/2015 Invited speaker at the Regenerative Medicine Symposia, Mahoney State Park Lodge, Omaha, NE; 17 April 2015
- 04/2015 Invited speaker at the Genetics Seminar, University of Nebraska at Lincoln, NE; 10 April 2015
- 03/2015 Invited speaker at the First Indo-Canadian Symposium on Heart Failure: Progress and Prospects, held at the Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, India; 12-14 March 2015
- 03/2015 Invited speaker at the 7th International Conference on "Recent Advances in Cardiovascular Sciences" held on 10 - 11 March 2015 at The Amity University, UP, India

- 10/2014 Invited speaker at the Biochemistry & Molecular Biology Department, University of Nebraska Medical Center, Omaha, NE; 26 January 2015
- 01/2015 Invited speaker at the annual meeting of the Indian Science Congress, Mumbai, India 3-7 January 2015
- 11/2014 Faculty and Invited speaker at the 5th International Congress of Cardiology, UAE Fujairah City, 21-23 November 2014
- 11/2014 Faculty and Invited speaker at the XXIV Scientific Forum of the International Congress of Cardiovascular Sciences, Maceio, Alagoas, Brazil; 13-15 November 2014
- 10/2014 Invited speaker at the Regenerative Medicine Seminar Series, University of Nebraska Medical Center, Omaha, NE; 29 October 2014
- 09/2014 Faculty and Invited speaker at the 25th Annual Vascular Biology and Hypertension Symposium, University of Alabama at Birmingham, AL; 22-23 September 2014
- 08/2014 Invited speaker at the 2nd Cardiovascular Forum for Promoting Centres of Excellence and Young Investigators, International Academy of Cardiovascular Sciences, Winnipeg, Canada; 4-7 September 2014
- 04/2014 Invited speaker at the "Addressing Health Disparities: Focus on Asthma" Symposium at the Health Sciences Multicultural Affairs, Creighton University; 26 April 2014
- 02/2014 Invited Speaker at the 6th International Conference on Drug Discovery & Therapy in Dubai, UAE; 10-12 February 2014
- 02/2014 Invited Speaker at the 101st Indian Science Congress, Jammu, India in the Plenary session entitled "Nutrition and Cardiovascular Diseases"; 3-7 February 2014
- 12/2013 Invited speaker at the annual meeting of the Italian Society of Cardiology, Rome, Italy 14-16 December 2013; "Immunomodulation of Coronary Artery Disease".
- 12/2013 Invited speaker at Temple University, Philadelphia, PA in the Pharmacology Seminar series, and the Center for Metabolic Diseases Research, Cardiovascular Research & Thrombosis Research; 10-11 December 2013
- 10/2013 Invited speaker at the 7th International Congress on Cardiovascular Diseases (ICCD) and the 17th World Congress on Clinical Nutrition (WCCN), Sofia, Bulgaria 24-26 October 2013
- 08/2013 Invited speaker at the National Jewish Health, Denver, Colorado in the Department of Medicine - Allergy & Immunology Program as an "Accomplished and Distinguished Scientist"; 4-5 August 2013
- 04/2013 Invited speaker at the Vermont Center for Immunology & Infectious Diseases (VCIID), University of Vermont, Burlington, VT; 18-19 April 2013

- 04/2013 Invited speaker at the Center for Stem Cell and Regenerative Medicine, University of Nebraska Medical Center, Omaha, NE; 9 April 2013
- 03/2013 Invited speaker at the University of Tennessee, College of Veterinary Medicine, Atlanta, GA; 16-17 March 2013
- 01/2013 Invited speaker at the Cardiovascular Research Institute, Morehouse School of Medicine, Atlanta, GA; 9-10 January 2013
- 11/2012 Invited Speaker at the 22nd National Annual Conference of the Indian Society of Hypertension in conjunction with the International Conference of Cardiovascular Disease Prevention, Mumbai, India to speak on "Vitamin D as an Immunomodulator in Coronary Artery Disease"; 2-4 November 2012
- 10/2012 Invited speaker in the Anesthesiology Department at Creighton University Medical Center to speak on "Clinical & Translational Research at Creighton - Future Prospects"; 17 October 2012
- 09/2012 Invited Speaker at the Northwestern University School of Medicine, Chicago, IL to speak on the Molecular Mechanisms of Dendritic Cell Migration in Allergic Asthmatic Lungs; 6-7 September 2012
- 05/2012 Invited Speaker at the University of Pittsburgh Medical Center, Pittsburgh, PA to speak on Novel Mechanisms in the Pathogenesis of Chronic Asthma; 30 April-1 May 2012
- 01/2012 Invited Speaker at the 99th Indian Science Congress, Plenary session on Preventive Maternal and Child Health Care; Role of Vitamin D; Bhubaneswar, India, 3-9 January 2012
- 12/2011 Invited speaker at the 60th annual meeting of the American Society of Tropical Medicine & Hygiene, Philadelphia, PA, 4-8 December 2011
- 11/2011 Invited speaker at the mid-west regional meeting of the Network of Minority Research Investigators, NIH-NIDDK; November 3-4, 2011
- 06/2011 Invited speaker at the University of Nebraska Medical Center Immunology Interest Group; the title of my talk was "Novel Mechanisms in the Migration of Lung Dendritic Cells in Allergy and Asthma"
- 04/2011 Keynote Speaker at the Annual research Day of Creighton University; 5 April 2011; Title of the talk was "Multidisciplinary Knowledge Integration: Challenges and Rewards"
- 03/2011 Invited speaker and Co-chair at the luncheon seminar on "Th17 cells in Asthma and Autoimmunity"; 20 March 2011

- 02/2011 Invited Speaker at the annual meeting of the International Academy of Cardiovascular Sciences: Bridging the Gap: Basic Sciences and Clinical Practice, Vadodara, Gujarat, India, 1-3 February 2011
- 02/2011 Invited Speaker at the 4th World Congress of the International Academy of Cardiovascular Sciences: CIMS-3C-CON, Ahmedabad, Gujarat, India, 4-6 February 2011
- 01/2011 Invited Speaker at the 98th Indian Science Congress, Medical Sciences section; Chennai, India, 3-9 January 2011
- 12/2010 Invited Speaker at the Pittsburgh International Conference: LUNG CONFERENCE on the Understanding the Interface between Asthma, Host Defense, and Mucosal immunity, University of Pittsburgh, PA December 10-11, 2010
- 06/2010 Invited Speaker at the C. S. Medical University (formerly King Georg's Medical University), Lucknow, India; "Flt3-Ligand, Immunomodulation and Therapy in Asthma"
- 06/2010 Invited speaker at the Institute of Genomics and Integrative Biology, New Delhi, India; "Newer Treatments in Allergic Asthma"
- 03/2010 Invited Speaker at the annual meeting of the American Academy of Allergy, Asthma and Immunology, New Orleans, LO, in the Panel Discussion on "Who Dunit: Which cells drive the asthma phenotype?"
- 01/2009 Invited speaker, Wayne State University, Detroit, MI; "Vein Graft Disease; why is the internal mammary artery immune to restenosis?"
- 12/2008 Invited speaker in an International Symposium at the University of Vadodara, India on the Translational Research in Cardiovascular Medicine: From bench to bedside and vice-versa, Vadodara, India on December 11, 2008; "Vein-graft disease: Why is the internal mammary artery almost immune to restenosis?"
- 12/2008 Invited speaker in the 42nd Annual Conference of the Indian College of Allergy, Asthma and Applied Immunology, Ahmedabad, India on December 12, 2008; "Immunomodulation in the Therapy of Asthma".
- 12/2008 Invited speaker in the 42nd Annual Conference of the Indian College of Allergy, Asthma and Applied Immunology, Ahmedabad, India on December 13, 2008; "Are Eosinophils Pivotal in Allergic Diseases?"
- 12/2008 Invited speaker at the Delhi Institute of Pharmaceutical Sciences and Research, New Delhi, India in the Third International Symposium on "Recent Advances in Cardiovascular Sciences" on December 17, 2008; "Carotid Artery Disease: Why some people are symptomatic and others not?"

- 12/2008 Chair of a scientific session in the Third International Symposium on "Recent Advances in Cardiovascular Sciences", the Delhi Institute of Pharmaceutical Sciences and Research, New Delhi, India on December 17, 2008.
- 12/2008 Chair/Judge of the Poster session in International Conference on Translational Pharmacology, New Delhi, India on December 18, 2008.
- 12/2008 Invited speaker at the All-India Institute of Medical Sciences, New Delhi, India, in the International Conference on Translational Pharmacology, on December 19, 2008; "Mechanisms underlying airway inflammation due to racemic β 2-agonists".
- 11/2008 Invited speaker at the University of Virginia BB Carter center for Immunology Research, Charlottesville, VA on 3rd November 2008; "Flt3-Ligand, Immunomodulation and Therapy in Asthma".
- 09/2008 Invited Speaker in the Annual Research Forum, Sepracor Inc., New Orleans, LA; 18-20 September 2008; "Comparative effects of the enantiomers of formoterol on importins in human bronchial smooth muscle cells".
- 04/2008 Invited speaker at the University of Salzburg, Austria, in the 3rd International Symposium on Molecular Allergology - ISMA 2008 (Basic, Translational and Clinical Aspects), Salzburg, Austria, April 18-20, 2008.
- 03/2008 Invited speaker at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Philadelphia, PA, March 13-18, 2008, to speak on "VEGF and Angiopoietins in Allergic Airway Inflammation and Airway Remodeling in Chronic Asthma".
- 03/2008 Invited speaker at the International Society for Heart Research - Indian section, held at the Postgraduate Institute of Medical Education and Research, Chandigarh, India, February 29- March 2, 2008.
- 02/2008 Invited speaker at the at the Delhi Institute of Pharmaceutical Sciences and Research, New Delhi, India to speak in the international symposium on Recent Advances in Cardiovascular Sciences, on February 28, 2008.
- 12/2007 Invited speaker at the annual meeting of the Indian Association of Clinical Biochemists, held in New Delhi, India, December 17-21, 2007.
- 08/2007 Invited speaker at the School of Medicine, St. Louis University in the Department of Medicine center for Immunobiology on 6th August 2007; "Novel Therapies in the Treatment of Allergic asthma".
- 03/2007 Invited speaker at the University of Nebraska Medical Center, Immunology Program on 14th March 2007; "Immunomodulation in Asthma".

- 11/2006 Invited speaker at the Cardiovascular Research Institute, Morehouse School of Medicine, Atlanta, GA; "Cellular and Molecular Mechanisms underlying Atherosclerotic Plaque Instability".
- 11/2006 Invited speaker at the International Symposium on Recent Research Advances in Asthma Pathogenesis, Grand Royal Antiguan Beach Resort, St. John's, Antigua, November 19-22, 2006.
- 10/2006 Invited speaker at the Biomedical Sciences Seminar Series, College of Veterinary Medicine, University of Minnesota, St. Paul, MN
- 03/2005 Invited speaker at the 3rd TAIHO Pharmaceutical Research Symposium, Pittsburgh, PA
- 10/2004 Chairman, A major symposium on Eosinophils at the 6th Asia-Pacific Congress of Allergology and Clinical Immunology, Tokyo, Japan.
- 10/2004 Invited speaker in a luncheon seminar, "Th1/Th2 Polarized Immunity" at the 6th Asia-Pacific Congress of Allergology and Clinical Immunology, Tokyo, Japan.
- 09/2004 Invited Speaker at the Sepracor, Inc. headquarters, Marlborough, MA
- 08/2004 Invited Speaker; University of Missouri, Columbia; Title of the talk was "Is the (S)-enantiomer of albuterol a silent bystander or culprit in worsening asthma?"
- 04/2004 Invited speaker at the 2nd TAIHO Pharmaceutical Research Symposium, Pittsburgh, PA.
- 01/2004 Invited Speaker at the TAIHO Pharmaceuticals, Tokushima Facility, Japan
- 01/2004 Invited Speaker, University of British Columbia, Vancouver, BC, Canada
- 09/2003 Invited speaker at the SEPRACOR Research Forum, New Orleans, LO.
- 03/2003 Invited speaker in a dinner symposium, "Can the β 2-agonists be pro-inflammatory or anti-inflammatory agents?" at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Denver, CO.
- 11/2002 Invited speaker in a dinner symposium, "Novel concepts in the treatment of allergic rhinitis" at the annual meeting of the American College of Allergy, Asthma and Immunology, San Antonio, TX
- 10/2002 Chairperson of an oral presentation session on "Asthma" at the 7th Asian Pacific Congress of Respiriology, Taipei, Taiwan
- 10/2002 Invited Speaker in a Symposium on "Innovative Therapies in Asthma" at the 7th Asian Pacific Congress of Respiriology, Taipei, Taiwan.

- 02/2001 Invited speaker at the University of California, Davis, CA.
- 10/2000 Invited speaker at the 5th Tokyo Allergy Symposium, Tokyo, Japan
- 06/2000 Invited speaker at the Guidant Corporation, Santa Clara, CA.
- 11/1999 Invited speaker at the AtheroGenics, Alpharetta, GA.
- 03/1998 Invited speaker at the Genentech Corp, South San Francisco, CA, to speak on "Mechanisms underlying restenosis/intimal hyperplasia".
- 10/1996 Invited speaker at the IBC's 3rd International Conference on Restenosis, Cambridge, MA. The title of my talk was "Comparative effects of various stents on restenosis/intimal hyperplasia".
- 04/1992 Co-Chairperson of a session on "Vascular Smooth Muscle Pharmacology II" at the 1992 FASEB meeting, Anaheim, CA.
- 10/1991 Chairman of a session on monocyte/macrophage at the XIV International Congress of Allergology and Clinical Immunology, held in Kyoto, Japan, October 13-18, 1991.
- 02/1991 Chairman of a session on PAF Receptor Antagonists at the Tokyo PAF symposium on Allergic, Respiratory and Cardiovascular Diseases, held in Tokyo, Japan.
- 02/1991 Invited speaker at the Tokyo PAF symposium on allergic, respiratory and cardiovascular diseases, held in Tokyo, Japan.
- 05/1987 Invited speaker at the American Thoracic Society Annual meeting symposium on Bronchial Reactivity to speak on "Smooth Muscle: Modulation of Receptors and Response".
- 09/84-10/85 Postdoctoral fellow of the Canadian Heart Foundation to work on my research in the Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver, Canada.
- 07/82-09/84 Postdoctoral fellow of the Canadian Heart Foundation to work on my research project entitled "Alpha-adrenoceptors in vascular smooth muscle and their role in hypertension", at McMaster University, Hamilton, Ontario, Canada.

PROFESSIONAL AND TEACHING EXPERIENCE

A. At Creighton University, Omaha, NE (1985-2019):

- 1985 - 1993 Didactic lectures- up to 24 lectures per year (PHR 631 and PHR 632) in receptor Pharmacology, calcium channel blockers, autacoids, and respiratory Pharmacology to sophomore medical, pharmacy and junior dental students & graduate students at Creighton University School of Medicine, Omaha, NE

- 1986 - 2004 Didactic lectures (two contact hours per week) in Immunopharmacology (MIC 737) to medical and graduate students, residents and Allergy/Immunology Clinical Fellows at Creighton University School of Medicine, Omaha, Nebraska.
- 1996- 2016 Director and the Instructor of the Recent Advances in the Immunopharmacology of Allergic Diseases (MIC 737)
- 1986 - 1992 Co-director of the Advanced Immunology (three contact hours per week) (MIC 746) course to graduate students
- 1986 - 2016 Supervision of graduate students in the Departments of Medical Microbiology and Immunology, and Biomedical Sciences, Creighton University School of Medicine, Omaha, NE.
- 1991 - 2002 Supervision and teaching of biomedical research methods to Department of Surgery residents and research fellows.
- 1985 - 2019 Teaching biomedical research methods to 3-4 undergraduate/pre-med students per year (up to 20 hours per week).
- 1996 - 2019 Lectures in the Host-Defense course (Immunology) to first year medical students
- 1995 - 2004 Clinical tutorials in Pulmonary/Allergy and Immunodeficiency cases to second year medical students
- 1998 -2010 Director and the Instructor of a graduate course MIC747 (3 contacts hours per week), *"Cellular and Molecular Mechanisms of Transmembrane signaling"*
- 1999 - 2004 Director and Instructor, *"Cellular and Molecular Biology of Cardiovascular Diseases"* to clinical fellows in cardiology
- 1999 - 2019 Faculty in the Case-based Learning (Tutorial cases) of 1st year medical students (IDC 101)
- 2000-2001 Faculty in the Case-based Learning (Tutorial cases) of 2nd year medical students (IDC 233)
- 2004-2012 Lecturer in the Physiology course to Pharmacy students (BMS 404) on *Muscle Physiology*
- 2005 - 2006 Director, *"Molecular and Cellular Biology"* (IDC101) course to M-1 students
- 2005- 2019 Lectures in the Molecular and Cell Biology course (IDC101) course to M-1 students
- 2005- 2019 Director, *"Molecular and Cellular Biology"* course to Post-Bac Pre-Matriculation (Medicine) students before starting the MD Program

2007-2010	Director, BMS791 course on seminar in the Department of Biomedical Sciences, Creighton University
2009-2019	Director, Graduate Program (Graduate Certificate and Master of Science) in Clinical and Translational Science
2010-2019	Co-Director of the course, CTS715- " <i>Applied Pharmacokinetics and Pharmacodynamics for Clinicians</i> "
2011 - 2019	Course Director and sole Instructor of the course, CTS747 - " <i>Transmembrane Signaling in Immune Cells</i> "
2013 - 2015	Lecturer in the Medical Physiology course (BMS 601)
2017 - 2019	Course Director and sole Instructor of the course, CTS713 - " <i>The Discipline of Scientific Writing and Preparation of Competitive Grant Applications</i> " - Graduate level course

B. Teaching Experience (1973 - 1985)

1984 - 1985	Formal lectures in Pharmacology to the graduate students in the Faculty of Pharmaceutical Sciences, The University of British Columbia, Vancouver, BC, Canada
1980 - 1982	M.D. resource person (as a teaching assistant to Professor EE Daniel) in the field of Pharmacology in the Faculty of Health Sciences, McMaster University, Hamilton, Ontario, Canada
1977 - 1980	Formal lectures in Chemical Pathology (theoretical and practical aspects) to M.D. and Diploma in Clinical Pathology students in the Postgraduate Department of Pathology & Bacteriology, King George's Medical College, Lucknow, India
1978 - 1980	Research guidance: co-supervised the theses of M.D. and M.S. degrees of the King George's Medical College, Lucknow University, India
1973 - 1980	Chemical Pathology: Seven years' experience in methodology and interpretations of diagnostic investigations in Clinical Biochemistry, King George's Medical College, Lucknow, India

Postdoctoral fellows/Clinical Residents trained in my research laboratory and their current Employment:

1. Avinash C. Dwivedy, Ph.D.; January 1989 - November 1989; currently Scientist and Joint Director, Science & Technology, Government of India
2. Nawab Ali, Ph.D.; January 1990 - September 1991; currently working as an Associate Professor at the University of Arkansas School of Medicine, Arkansas

3. Toshio Numao, M.D., Ph.D.; July 1990 - June 1992; currently Vice President of Utsonomiya Hospital in Japan, and Associate Professor, Department of Medicine and Clinical Immunology, Dokkyo University School of Medicine, Mibu, Tochigi, Japan
4. Worku Abebe, Ph.D.; January 1991 - October 1992; currently an Associate Professor, School of Dentistry, Medical College of Georgia, Augusta, GA
5. Sarita Agarwal, Ph.D.; July 1991 - October 1991; Visiting Scientist and Research fellow; currently a Scientist and Professor at the Sanjay Gandhi Medical Research Institute, Lucknow, India
6. Jane M Rowley, M.D.; Vascular Surgery Research Fellow; July 1992-June 1993; completed a clinical fellowship in the Plastic and Reconstructive Surgery, New York Hospitals, NY; currently a practicing surgeon
7. Paolo Sapienza, M.D.; Vascular Surgery Research fellow from the University of Rome, Italy; July 1992 - August 1993; currently a faculty at the University of Rome, Italy
8. Patrick E McGregor, M.D.; Vascular Surgery Research Fellow; July 1993-June 1994; currently a practicing surgeon in Kansas City, MO
9. Peter S Dovgan, M.D.; Vascular Surgery Research Fellow; July 1994 to June 1995; did fellowship in vascular surgery at Henry Ford Hospital, Detroit, MI; currently a vascular surgeon in Florida
10. Lindsey Chisholm, MB,BS, FRCS; Surgical Research Fellow; August 1994 - September 1995; currently a Registrar in Surgery, United Kingdom
11. Sandhya K. Balaram, M.D.; Vascular Surgery Research Fellow; July 1995 – June 1997 (also a PhD student). She completed fellowship in Cardiothoracic Surgery, and is working as an Associate Professor of Cardiothoracic Surgery, Columbia University, NY
12. Ashwini Dhume, PhD, Postdoctoral Fellowships at the NIH and at the Mount Sinai Hospital, Department of Cardiology, New York, NY; currently a Senior Scientist in one of the Pharmaceutical Industries, New Jersey, USA
13. Gang Cheng. MD, PhD, after 4 years of Senior Research Associate position, Dr. Cheng completed Clinical residency program in Internal Medicine at Medical College of Georgia, Augusta, GA followed by clinical fellowship in Allergy & Immunology
14. Jianhui Yang, MD, PhD, after postdoctoral fellowship in my laboratory, joined NCI-NIH, Bethesda, MD
15. Abdo Ibrahim Berro, Ph.D.; joined a postdoctoral fellow in the division of Allergy & Immunology at Creighton University School of Medicine, Omaha, NE
16. Jehad Edwan, PhD, currently a senior scientist at the NIH-NINDS, Bethesda, MD
17. Arpita Bharadwaj, Ph.D., after graduation joined a postdoctoral fellow at Mount Sinai School of Medicine, New York, NY

18. Kriti Rakesh, Ph.D., after graduation joined a postdoctoral fellow at Duke University Medical Center, Durham, NC.
19. Amit K. Mitra, MBBS, MD, PhD, a postdoctoral fellow in my laboratory from July-December 2007. After that he worked at the Univ. of Nebraska Medical Center, Omaha, NE
20. Anshu Aggarwal, PhD; after graduation, did postdoctoral fellowship at Duke University followed by at the Albany Medical College, Albany, NY; now working as an Instructor in Anatomy & Physiology at Auburn University in Montgomery, AL.
21. Halvor Sim McGee, PhD, after graduation did postdoctoral fellowship in the division of Pulmonary Medicine and Critical Care, Department of Medicine, University of California at San Diego, CA, and at the UIC, Chocago, IL; then worked as an Assistant Professor.
22. Guanghong Jia, MD, PhD, worked as a postdoctoral fellow from 2004 – 2010, and then appointed as a Resident Assistant Professor in the Department of Biomedical Sciences at Creighton University School of Medicine, Omaha, NE until June 2012.
23. Zhifei Shao, MD, PhD: After finishing his PhD, Dr. Shao worked as a postdoctoral fellow for one year from 2009 – 2010, followed by Resident Assistant Professor in the Department of Biomedical Sciences at Creighton University School of Medicine until April 2011. Then, he joined a research associate position at Stanford University and Palo Alto VA Medical Center, CA. Currently working at Genentech as a Principal Scientist.
24. Gleb Ivanov, PhD: worked as a postdoctoral fellow from 2008 – 2010; Currently a scientist in Russia
25. Sameer Goyal, PhD: worked as a postdoctoral fellow from June 2010- October 2010
26. Xiang Wang, Ph.D.: worked as a postdoctoral fellow from November 2008 – November 2010. Currently working in a pharmaceutical company in China.
27. Raj K. Verma, PhD; worked as a postdoctoral fellow from January-August 2011.
28. Suneel Kumar, MBBS; worked as a postdoctoral fellow from January 2011 – June 2012
29. Divya Pankajakshan, PhD, worked as a postdoctoral fellow from November 2008 – April 2012
30. Lanre Makinde, PhD worked as a postdoctoral fellow from September 2009 – April 2012
31. Kajari Dhar, PhD, worked as a postdoctoral fellow September 2010 – April 2012
32. Kush Lohani, MBBS, worked as a postdoctoral fellow April 2013 – June 2014
33. Harit Kapoor, MBBS, worked as a postdoctoral fellow May 2014 – May 2015
34. Lin Tang, MD, PhD, worked as a postdoctoral fellow September 2012 – June 2015

35. Liang Mo, MD, worked as a postdoctoral fellow March 2014 - July 2015
36. Yong You, MD, worked as PhD student (registered in China) March 2014 – July 2015
37. Kai Yin, MD, PhD, worked as a postdoctoral fellow July 2013 – August 2015
38. Mohamed M. Radwan Ahmed, M.D. – July 2011 – 10 January 2016
39. Vickie Swier, Ph.D. – January 3, 2011 – 10 January 2016
40. Christopher Pelham, PhD – August 2012 – 10 January 2016
41. Chandra S. Boosani, PhD - September 2012 – 10 January 2016
42. Amit Kumar Pandya, Pharm D., PhD – May 2012 – 4 February 2016
43. Saurabh Singhal, MBBS, MS – August 2015 – June 2016.
44. Shreya Agarwal, MBBS – July 2015 – May 2016.
45. Jubing Zheng, MD, PhD – September 2015 – 8th September 2016
46. Kokouvi Paul Djossou, M.D. – June 2013 – October 2016
47. Santosh K. Yadav, PhD – January 2016 – December 2016
48. Gopal K. Jadhav, PhD – May 2016 – January 2017
49. Antu Kalathookunnel Antony, PhD – August 2015 – March 3, 2017
50. Velidi Rao, PhD – August 2011 – February 2017
51. Izuagie A. Ikhapoh, Ph.D. – September 2016 – April 2017
52. Lili Huang, M.D. – January 15, 2016 – May 2017
53. Saravanan Subramanian, PhD (in collaboration with Dr. Kalyana Nandipati) – September 2014 – December 2017
54. Zefu Zhang, MD, an Interventional Radiologist – January 2014 – June 2018
55. Palanikumar Guneseekar, M.B.B.S. - March 2015 – June 2019
56. Finosh G Thankam, PhD – August 2015 – July 2019
57. Harbinder Singh, PhD – August 2020 – April 2023

58. Sunil K. Nooti, MBBS, PhD – September 2020 - February 2022

59. Drishtant Singh, PhD – April 2022 – November 2022

60. Merlin Rajesh Lal L.P., PhD – March 2023 – Present

61. Sudharshan S. J., PhD – April 2023 - Present

Resident Assistant Professors worked under my mentorship:

1. Zhifei Shao, MD, PhD (January 2011 – December 2011) → now at AMGEN, CA
2. Guanghong Jia, MD, PhD (January 2011 – June 2012) → now at UMKC
3. Kajari Dhar, PhD (May 2012 – December 2012) → now at UNMC
4. Lanre Makinde, PhD (May 2012 – March 2013)
5. Divya Pankajakshan, PhD (May 2012 – December 2014) → now at LakePharma, Inc., CA
6. Songcang Chen, MD (September 2013 – October 2016) → now at UCSF
7. Christopher Pelham, PhD (January 2016 – December 2016) → now at Wash U, St. Louis, MO
8. Vicki Swier, Ph.D. (January 11, 2016 – October 2017) → now at Sanford Health, Sioux Falls, SD

Research Associate worked under my direct supervision:

1. Min-Jung Kim, M.S., an electrophysiologist → January 3, 2011 – 31 March 2015
2. Min-Jung Kim, M.S., an electrophysiologist → February 27, 2017 – December 14, 2017

Assistant Professors:

1. Mohamed M. Radwan, MD, FRCS (January 11, 2016 – Present)
2. Finosh G. Thankam, PhD (August 1, 2019 – Present)
3. Vikrant Rai, MBBS, MS, PhD (August 2020 – Present)
4. Chandra S. Boosani, PhD (January 11, 2016 – June 30, 2020)
5. Halvor Sim McGee, PhD (September 2016 – June 30, 2019)
6. Gopal K. Jadhav, PhD (January 2017 – June 30, 2019)

GRADUATE STUDENTS TRAINED UNDER MY DIRECT SUPERVISION AND GRADUATED:

1. Marlin Fugate, M.S. (Microbiology) graduated in May 1991. The title of his thesis was "**Studies on the mechanism of interleukin-2 induced microvascular permeability**". Dr. Fugate is a practicing Radiologist in the State of Kansas.
2. Sharmishtha D. Joshi, M.S. (Pharmacology) graduated in August 1992. The title of her thesis dissertation was "**Guanine nucleotide binding-regulatory proteins in bovine and guinea pig trachea**". Ms. Joshi is a practicing pharmacist in Washington DC/Maryland area.

3. Berdine TY Chong, M.S. (Medical Microbiology and Immunology) –graduated in August 1998; Thesis title “**Beta-adrenoceptor desensitization in the airways following administration of IL-1 β and chronic β -adrenoceptor agonist**”. Dr. Chong completed Psychiatry residency in Chicago, IL, followed by Clinical Fellowship in Geriatric Psychiatry, currently a practicing psychiatrist in Hawaii.
4. Sandhya K. Balam, M.D. - Ph.D. (Medical Microbiology and Immunology) – graduated in December 1999; Dissertation title “**Insulin-like growth factor-1 and cell adhesion molecules in vascular disease**”. Dr. Balam joined the faculty position in Cardiothoracic Surgery at St. Luke's-Roosevelt Hospital Center in New York.
5. Richard Todd Allen, an MD-PhD student; PhD (Medical Microbiology and Immunology); graduated in May 2001. The title of his dissertation was “**Regulation of vascular smooth muscle cell apoptosis by IGF-1: Control of apoptosis induced by *c-myc* and protein kinase inhibition**”. After finishing his residency in Orthopedic Surgery at UC San Diego, CA, Dr. Allen joined the faculty position and now is as an Assistant/Associate Professor in Orthopedic Surgery at UCSD.
6. Michael Hopfenspirger, an MD-PhD student, successfully defended his PhD dissertation in Biomedical Sciences. He received both MD and PhD in May 2003. The title of his dissertation was “**Mycobacterial antigens in the immunomodulation of allergic asthma**”. He completed residency in Otorhinolaryngology (ENT) in Minneapolis, MN.
7. Kristopher Krueger, MD-PhD student completed his PhD (Medical Microbiology and Immunology) program and received both MD and PhD degrees in May 2003. The title of his dissertation was “**A comparison of stent-induced stenosis development in central and peripheral arteries in swine: Implications of vascular smooth muscle cell apoptosis**”. He completed the clinical fellowship in Cardiology in Minneapolis, MN.
8. Ashwini S. Dhume, B. Pharm, Ph.D. (Biomedical Sciences) program. She received her Ph.D. degree in December 2002. The title of her dissertation was “**Carotid atherosclerosis: Why some patients are symptomatic and others not?**” Dr. Dhume is currently working as a Principal Scientist in a Pharmaceutical Company, New Jersey.
9. John Mose Roberts, M.S. (Biomedical Sciences). He received his M.S. degree in December 2003. The Master’s thesis was entitled “**The Role of Bradykinin Antagonists in Experimental Acute Spinal Cord Injury**”. Currently Dr. Roberts is a clinical resident after competing MD degree at Loyola University School of Medicine, Chicago, IL.
10. Min-Jung Kim, MS (Biomedical Sciences). She received her M.S. degree in December 2004. Her thesis title was “**Chloride channels in monocytes and macrophage and effect of cytokines**”.
11. Jehad Edwan, A Fulbright Scholar, received PhD (Medical Microbiology & Immunology) in December 2004. His dissertation title was “**Flt3-Ligand: a novel immune adjuvant in the therapy of asthma**”. Currently a postdoctoral fellow at the National Institutes of Health-NINDS, Bethesda, MD.

12. Abdo Ibrahim Berro received PhD (Medical Microbiology and Immunology) in May 2005. His dissertation title was "**CD30 molecule and Apoptosis of Human Blood Eosinophils**".
13. Thaddeus Kowal - M.S. in Medical Microbiology and Immunology. He successfully defended his thesis in May 2006. The title of his thesis was "**Anti-allergic drug and intracellular signaling mechanisms in human blood eosinophils and airway epithelial cells**".
14. Bharti R. Chaudhary earned Master of Science in Biomedical Sciences in August 2006. The title of her thesis was "**TRAIL and TGF- β 1-induced Apoptosis of Human Airway Epithelial Cells**". After finishing her medicine curriculum and clinical residency, Dr. Chaudhary is working as a physician in Emergency Medicine in Fort Worth, TX.
15. Michael Gritzuk, Master of Science in Biomedical Sciences. Successfully defended his thesis in August 2006. The title of his thesis was "**Angiotensin II-induced Apoptosis in Vascular Smooth Muscle Cells: Differential Effects in Human Saphenous Vein and Internal Mammary Artery**". Currently, Mr. Gritzuk completed DDS at Creighton University, Omaha, NE.
16. Arpita Bharadwaj earned PhD (Medical Microbiology and Immunology) in May 2007. Her research dissertation title was "**Reversal of Airway Hyperresponsiveness in Bronchial Asthma by Generation of Semi-mature Dendritic Cells in the Lung Following Flt3-ligand Treatment**". After completing 2.5 years of postdoctoral fellowship at Mount Sinai Medical Center, New York, NY, Dr. Bharadwaj is working as a research scientist in OHSU, Portland, Oregon.
17. Kriti Rakesh, received PhD (Biomedical Sciences) in May 2007. Her research dissertation title was "**Regulation of IGF-1 Signaling by SOCS3 in Human Coronary Artery Smooth Muscle Cells**". She is currently a postdoctoral fellow at Duke University Medical Center, Durham, NC.
18. Ajeeth Ramanathan received Master of Science in Biomedical Sciences in December 2006. The title of his research thesis was "**Involvement of CLC-3 in Platelet-derived Growth Factor Induced Proliferation of Airway Smooth Muscle Cells**". He is currently working in a Scientific Instrument company in Minneapolis, MN.
19. Amit Mitra, MBBS, MD, received PhD in May 2007 in the Department of Biomedical Sciences. The title of his research dissertation was "**Why Internal Mammary Artery is immune to restenosis as compared to saphenous vein and radial artery?**" Dr. Mitra did a postdoctoral Fellow at the University of Nebraska Medical Center, Omaha, NE.
20. Joseph Michael Franzese successfully defended his thesis for Master of Science (Biomedical Sciences) in July 2007. His research project was "**Suppressors of Cytokine Signaling in Allergic Airway Inflammation**". Mr. Franzese, after MD (Medicine) completed a clinical residency.
21. Himanshu Aggarwal, MBBS, MS (Surgery), a Master of Science degree in Biomedical Sciences, submitted and defended his thesis in May 2008. His research project was "**Lymphoma/Leukemia-Related Factor in Human Prostate Carcinoma**". He completed

Urology residency, followed by clinical fellowship in Neuro-Pelvic floor fellowship at UT Southwestern Medical Center, Dallas, TX; now the Chief of Neuro-Pelvic Surgery, Baptist Hospital, Montgomery, AL.

22. Gloria Gilliam, successfully completed M.S. in the Department of Biomedical Sciences, Creighton University School of Medicine, on the **“Mouse model of House dust mite and Cockroach-induced airway hyperresponsiveness and effect of Flt3-ligand in allergic asthma”**; completed all requirements for MS degree in August 2008.
23. Aman Yohannes, submitted and defended M.S. thesis in the Department of Biomedical Sciences, Creighton University School of Medicine, **“Wnt proteins and Connexin 43 in the development of intimal hyperplasia and restenosis”**. He has completed all requirements for MS degree in April 2009, did MD and the clinical residency, now a practicing physician in Omaha, NE.
24. Arthur Stallworth III, submitted and defended M.S. thesis in the Department of Biomedical Sciences, Creighton University School of Medicine, **“TH17 cells in the lung: Role in Allergic Airway Inflammation and Airway Hyperresponsiveness due to House Dust Mite”**, completed all requirements for MS degree in May 2009.
25. Benjamin Moore, submitted and defended M.S. thesis in the Department of Biomedical Sciences, Creighton University School of Medicine. The title of his M.S. Thesis was **“Regulation of Eosinophil Apoptosis: Role of Voltage-sensitive chloride Channels”**; completed all requirements for MS degree in May 2009.
26. Halvor Sim McGee, received PhD in Biomedical Sciences. The title of his Ph.D. dissertation was **“T-regulatory cells and Immunomodulation in Bronchial Asthma”** → completed all requirements for the PhD degree in August 2009 → joined the laboratory of Professor Patricia Finn, Chief of Pulmonary & Critical Care Medicine at UCSD in November/December 2009, and then at UIC, Chicago; worked as an Assistant Professor at Creighton.
27. Lanre Makinde, received PhD in Biomedical Sciences. The title of his Ph.D. dissertation was **“VEGF and Angiopoietin-1 in Airway Remodeling in Chronic Asthma”** → completed all requirements for the PhD degree in August 2009 → working as a Postdoctoral Fellow and then Research Assistant Professor.
28. Zhifei Shao, MD, received PhD in Biomedical Sciences. The title of his Ph.D. dissertation was **“Effect of Flt3-L on the migration of lung dendritic cells in the Immunomodulation of Allergic Asthma”** → completed all requirements for Ph.D. degree in August 2009 → worked as a postdoctoral fellow in my laboratory for 1 year to publish his research papers. Then, he was appointed Resident Assistant Professor in the Department of Biomedical Sciences at Creighton University School of Medicine. After working at Stanford University, Dr. Shao is currently working as a Scientist at AMGEN.
29. Dalia Youssef successfully defended her thesis for Master of Science (Biomedical Sciences) in May 2010. Her research project was **“Vitamin D and Chemotaxis of Human Blood Eosinophils”**.

30. Kelsey Kokubun successfully defended his thesis for Master of Science (Biomedical Sciences) in May 2011. His research project was "**Differentiation of Porcine Mesenchymal Cells into Epithelial Cells as a Potential Therapeutic Application to Facilitate Epithelial Regeneration**". Kelsey completed M.D. program.
31. Adarsh Sai, M.B.B.S. successfully defended his thesis for Master of Science (Clinical & Translational Science) in June 2011. His research project was "**Role of Vitamin D Receptor and Vitamin D Binding Protein Restriction Fragment Polymorphisms in Determining Dose Response to Vitamin D: A randomized Double-Blind Placebo Controlled Trial**". Dr. Sai completed clinical residency in Internal Medicine at the Loma Linda Medical Center, CA; followed by Gastroenterology Fellowship.
32. Laura A. G. Armas, M.D. submitted her thesis for Master of Science (Clinical and Translational Science) in August 2011 and successfully defended in September 2011. Her research project was "**Histomorphometric Analysis of Bone in Healthy, Young Patients with Type 1 Diabetes Mellitus**". Dr. Armas is currently an Associate Professor of Endocrinology at the University of Nebraska Medical Center.
33. Shreya Shetty, MBBS, submitted her thesis for Master of Science (Clinical and Translational Science) in June 2012 and successfully defended in July 2012. Her research project was "**LOCAL INFLAMMATORY RESPONSES IN PSEUDOMYXOMA PERITONEI**". Dr. Shetty was a Chief Clinical Resident in Surgery at CUMC.
34. Gaurav K. Gupta, MBBS, M.D. → received PhD in Biomedical Sciences in August 2012. His research project was to examine the "**Effect of Vitamin D in Angioplasty and In-stent Restenosis in Atherosclerotic Swine Model**". Dr. Gupta was a postdoctoral Fellow at Massachusetts General Hospital, Harvard University, and at Yale University.
35. Tanupriya Agrawal, MBBS → received PhD student in Biomedical Sciences in August 2012. Her research project was to examine the role of "**Importin α -3 and Vitamin D in Allergic Airway Inflammation and Asthma**". Dr. Agrawal is currently a postdoctoral Fellow at The Boston Children's Hospital, Harvard University.
36. Kannan Baskar, MBBS, submitted his thesis for Master of Science (Clinical & Translational Science) in October 2013 and successfully defended in November 2013. His research project was "**Serotonin Transporters in Coronary Artery Smooth Muscle Cells - Implications in the Pathogenesis of Coronary Artery Disease**" (Co-advisor with Dr. Vidhya Lakshmi Selvaraj)
37. Ryan Trowbridge, MD-MS student in the Clinical & Translational Science Graduate Program. His thesis title is: "**Vitamin D Receptors in Barrett's Esophagus and Adenocarcinoma in the Esophagus**". Completed the Program in August 2014; completed clinical residency in Dermatology at Mass General Hospital, Harvard University, Boston, MA; now an Assistant Professor of Dermatology at UNMC, Omaha, NE.
38. Rohit Gaurav, M.Sc. → PhD in the Department of Biomedical Sciences. His dissertation title was research "**Chloride Channel 3 (CLC3): an immune antiporter in the**

migration and activation of human eosinophils in allergic asthma". Completed the program in August 2014; was a postdoctoral research associate at National Jewish Hospital, Denver, CO and at the UNMC, Omaha, NE; now a research scientist in a pharmaceutical company.

39. Ankita Aggarwal, M.Sc. → PhD in the Department of Medical Microbiology & Immunology. Her PhD dissertation title was: "**Immunoregulatory Effects of Vitamin D In Cockroach-induced asthma**". Completed the program in August 2014; joined postdoctoral fellowship in Pharmacology at Creighton University School of Medicine, Omaha, NE; then completed DDS program.
40. Kimberly Fischer → PhD in the Department of Medical Microbiology and Immunology. Her research project entitled: "**Toll-like Receptors and Vitamin D Receptors in Airway Epithelium in Allergy and Asthma**"; Completed the program in August 2015.
41. Vikrant Rai, MBBS → MS in the Clinical & Translational Science Graduate Program. His research project entitled: "**TREM-1 in hepatocellular carcinoma**"; Completed the Program in August 2015 followed by PhD in CTS at Creighton.
42. Austin Nguyen, MD-MS student: in the Clinical & Translational Science Graduate Program. His research project entitled: "**TREM-1 in Malignant Melanoma**"; Completed the MS Program in May 2016. Mr. Austin Nguyen is an MD-MS combined student.
43. Izuagie A. Ikhapoh → PhD in the Department of Medical Microbiology and Immunology. His research project entitled: "**Regulatory Mechanisms underlying the Differentiation of Mesenchymal Stem Cells to Endothelial Cells**"; Graduated in August 2016.
44. Nypiat Martin Ayouk, DDS → MS in the Clinical & Translational Science Graduate Program. Her research project entitled: "**Effect of Vitamin D in Non-alcoholic Steatohepatitis**"; Graduated in May 2016.
62. Swastika Sur, M.Sc. → PhD in the Department of Biomedical Sciences. Her research Project entitled "**Role of Polo-like kinases and MMPs in Vascular Fibroproliferative Disorders**"; Graduated in August 2016; currently a postdoctoral fellow at UCSF, San Francisco, CA.
63. Kouassi Tata Kouassi, MD → MS in the Clinical & Translational Science Graduate Program. His thesis title was: "**Mechanisms underlying Insulin Resistance in Obesity**"; Graduated in August 2016.
64. Yovani Llamas → PhD in the the Clinical & Translational Science Graduate Program. His dissertation title was: "**Immunomodulatory Role of Vitamin D in the Differentiation of Mesenchymal Stem Cells into Endothelial Cells**"; Graduated in August 2016.
65. Sami Almalki → PhD in the Department of Clinical & Translational Science. His research project is on the "**Matrix Metalloproteinases regulate the Differentiation of**

Adipose-derived Mesenchymal Stem Cells into Endothelial Cells”; Graduated in May 2017.

66. Vikrant Rai, MBBS, MS → PhD in the Clinical & Translational Science Graduate Program: His dissertation title was: **“Immunomodulation of inflammatory response in osteoarthritis: Therapeutic potential of blocking IL-33-ST2 receptor”**; graduated in August 2017.
67. Sannette Hall → Ph.D. in the Department of Clinical & Translational Science. Her research project is on the **“TREM-2 and Dendritic Cells in the Pathogenesis of Allergic Airway Inflammation in Bronchial Asthma”**. Graduated in May 2018.
68. Joseph Abdo, MS → Completed PhD requirements in May 2018 in the Clinical & Translational Science Graduate Program; His research project was on the **“Discovery of Novel Diagnostic and Therapeutic Markers for Esophageal Adenocarcinoma”**; (Jointly with Dr. Sumeet Mittal); Successfully defended his PhD dissertation in May 2018.
69. Mounika Addula, MBBS → MS in the Clinical & Translational Science Graduate Program. Her thesis title was: **“Effect of Angioplasty and Hypoxia on Mitochondrial Biogenesis and Intimal Hyperplasia in Swine Coronary Artery”**; Graduated in May 2019.
70. Alison D. Ruckstuhl → MS in the Clinical & Translational Science Graduate Program. Her thesis title was: **“Advanced Glycation End Products in Diabetes and Tobacco Affect Collagen Phenotype in Rotator Cuff Injury Healing Response”**; Graduated in May 2019.
71. Wanlin Jiang, MS → Ph.D. in the Department of Clinical & Translational Science. Her research project was on the **“Epigenetics of intimal hyperplasia and in-stent restenosis in coronary artery disease”**. (Co-advisor with Dr. Chandra S. Boosani); Graduated in August 2019.
72. Hoangvi Le → Master of Science in the Graduate College of Biomedical Sciences, Western University of Health Sciences, Pomona, CA. Her research project title is: **“Hypercholesterolemia, Chronic Inflammation, and Skeletal Muscle Atrophy in Rotator Cuff Muscle”**. (Co-advisor with Dr. Vikrant Rai); Graduated in May 2023.

COMMITTEE SERVICES at Western University of Health Sciences

- 07/2019 – June 2021 WesternU President’s Senior Executive Team (PSET)
03/2020 – 02/2022 WesternU Demobilization Team Task Force
07/2021 – 02/2022 WesternU Senior Administrative Leadership
09/2022 – present WesternU College of Osteopathic Medicine Admissions Review Panel
11/2022 – present Western U College of Osteopathic Medicine Students’ Performance Committee

COMMITTEE SERVICES at Creighton University (1985- June 2019)

- 08/1988 – 08/1991 Health Sciences Library Committee

08/1990 – 08/1993	Committee on Students' Research and Scholarly Activities
01/1992 – 06/1993	Research Task Force, Creighton University
10/1988 – 06/2019	Supervisory Committee of the graduate students in the Departments of Biomedical Sciences, Medical Microbiology and Immunology, and Pharmacology
01/1986 – 06/2004	Interviewer of the applicants for Allergy-Immunology Fellowship at Creighton University Medical Center
09/1996 – 06/2003	Member of the MD/PhD Advisory and Selection committee, School of Medicine, Creighton University
02/1987 – 06/2018	Oral presentation and Poster presentation Judge at the Mid-West Research Forum, organized by Creighton University and University of Nebraska Medical Center
08/1997- 07/1998	Ad-hoc member of the Creighton University Academic Council
03/1997 – 06/1999	Creighton University Service Center Task Force
08/1997 – 08/2000	Rank & Tenure Committee, School of Medicine
10/1997- 08/2000	Chair , Committee on Students' Research and Scholarly Activity, School of Medicine.
09/1998 – 08/2000	Chair , Committee on Committees, School of Medicine, Creighton University
01/1999 – 04/2003	Research Design Team, Mission-Based Management Project, Creighton University School of Medicine
09/1999 – 08/2000	Chair , Rank and Tenure Committee, Creighton University School of Medicine
03/2000 – 05/2000	Ad-hoc Committee on Scientific Fraud and Misconduct, School of Medicine
08/2000– 08/2002	Academic Council, Creighton University
08/2000–08/2003	Chair , Committee on Governance and Administration, School of Medicine
11/2000–03/2001	Research Compliance Committee of Creighton University
06/2001	School of Medicine Research Planning Committee

10/2001 - 06/2003	Biosafety Laboratory Facility Committee, School of Medicine
09/2002 - 08/2005	Elected Member of the Rank & Tenure Committee, School of Medicine
09/2002 - 08/2005	Continuing Medical Education Committee, School of Medicine
01/2003 - 09/2003	Member, Search Committee for Chairman of Surgery, Creighton University Medical Center
02/2003 - 10/2003	Member of the LCME committee, Creighton University School of Medicine
10/2003 - 08/2005	Chair , Rank & Tenure Committee, Creighton University School of Medicine
01/2004 - 03/2004	Member of the Research Task Force, Creighton University School of Medicine
03/2004 - 10/2004	Member of the Professionalism Committee, Creighton University School of Medicine
08/2004 - 08/2007	Chair , Committee on Students' Research and Scholarly Activity, School of Medicine.
08/2004 - 08/2005	Member of the Ad-hoc Committee on developing Promotion and Tenure Guidelines, Creighton University School of Medicine
10/2004 - 01/2005	Member of the Basic Science Departments' Reorganization Task Force, Creighton University School of Medicine
10/2004 - 08/2007	Member - Creighton University Academic Council and Faculty Council
09/2005 - 08/2008	Member, Committee on Continuing Medical Education, School of Medicine
09/2005 - 08/2008	Elected Member - Creighton University Rank & Tenure Committee
07/2006 - 01/2010	Chair , Graduate Students' Coordination Committee, Department of Biomedical Sciences, Creighton University
07/2007 - 08/2011	Director , Departmental Seminar Series Program, Department of Biomedical Sciences, Creighton University
04/2008 - 12/2008	Chair , Graduate and Postdoctoral Education Task Force, School of Medicine, Creighton University

04/2009 – 06/2019	Chair , Internal Advisory Panel of the Clinical & Translational Science Program at Creighton
04/2009 – 06/2019	Member, Executive Committee of the Creighton University School of Medicine
07/2009 – 06/2019	Member, Creighton University Research Advisory Council
08/2010 – 07/2013	Member, Rank & Tenure Committee of the School of Medicine, Creighton University
10/2010 – 06/2011	Member, LCME –Self Study Committee of the School of Medicine, Creighton University
08/2010 – 08/2018	Member Graduate School Board, Creighton University
05/2012 – 12/2015	Co-chair, Research Workgroup in Alegent † Creighton Merger
08/2012 – 12/2012	Member, Strategic Planning Committee preparing for Alegent† Creighton Merger
08/2012 – 06/2019	Creighton University School of Medicine Medical School Admissions Committee
08/2014 – 06/2019	Creighton University School of Medicine MD-PhD Admissions Committee

COMMUNITY SERVICES

10/1985 – present	Member of the India Association of Nebraska
07/1992 - 06/1993	President , India Association of Nebraska
03/1992	Founding member of the Hindu Temple of Nebraska
03/1992	Member of the Board of Trustees, Hindu Temple of Nebraska
07/1997 – 06/1999	Secretary, Executive Committee of the Hindu Temple of Nebraska
07/1995- present	Volunteer advisor to several local high school and undergraduate students in their academic pursuit
01/1999 – 12/1999	Chair , Sports Committee, India Association of Nebraska
07/1999 – 06/2000	President , Executive Committee of the Hindu Temple of Nebraska
07/2000 – 06/2001	Chair , Long-Range Planning Committee, Hindu Temple, NE

10/1999 – 03/2004	Treasurer, Asha for Education (a non-profit organization promoting education of underprivileged children) Heartland chapter
07/2001– 12/2002	Chair , Publication Committee, Executive Committee of the Hindu Temple of Nebraska
07/2002 – 06/2003	Chair , Board of Trustees, Hindu Temple of Nebraska
07/2009 – 06/2015	Member, Board of Trustees, Hindu Temple of Nebraska

RESEARCH PUBLICATIONS

A. Ph.D. Theses:

1. Ph.D. (Biochemistry) Dissertation: **STUDIES ON BIOCHEMICAL CHANGES IN TISSUES OF DENGUE VIRUS INFECTED MICE**. Lucknow University, India, 1978. (Major Advisors: Prof. Abhaya Kumar and Prof. R.M.L. Mehrotra)
2. Ph.D. (Medical Sciences) Dissertation: **ALPHA-ADRENOCEPTORS IN VASCULAR SMOOTH MUSCLE AND THEIR ROLE IN HYPERTENSION**. McMaster University, Hamilton, Ontario, Canada, 1984. (Major Advisor: Prof. Edwin E. Daniel)

B. BOOKS:

1. "AIRWAY SMOOTH MUSCLE: RECEPTOR MODULATION AND RESPONSE", Editors DK Agrawal and RG Townley, CRC PRESS, Inc., Boca Raton, FL., 1990.
2. "INFLAMMATORY CELLS AND MEDIATORS IN BRONCHIAL ASTHMA", Editors: DK Agrawal and RG Townley, CRC Press, Inc., Boca Raton, FL., 1991.
3. "IMMUNOPHARMACOLOGY OF ALLERGIC DISEASES", Editors: Robert G Townley and DK Agrawal, Marcel Dekker, Inc. New York, NY, 1996.
4. "STEM CELLS AND COVID-19": Editors: Sharma CP, Agrawal DK, Thankam FG, Elsevier Press, 2022.

C. ORIGINAL PEER-REVIEWED FULL-LENGTH PUBLICATIONS (with most recent article listed first)

1. Noothi S, Rai V, Radwan MM, Thankam FG, Singh H, Chatzizisis YS, **Agrawal DK**: Oxidized low-density lipoproteins and lipopolysaccharides augment carotid artery plaque vulnerability in hypercholesterolemic microswine. *Cardiol Cardiovasc Med.* – June 2023 – submitted to the journal.
2. Hammer SS, Dorweiler TF, McFarland D, Adu-Agyeiwaah Y, Mast N, El-Darzi N, Fortmann SD, Nooti S, **Agrawal DK**, Pikuleva IA, Abela GS, Grant MB, Busik JV: Cholesterol crystal

- formation is a unifying pathogenic mechanism in the development of diabetic retinopathy. *Diabetologia*. 2023 Jun 14. doi: [10.1007/s00125-023-05949-w](https://doi.org/10.1007/s00125-023-05949-w) . Online ahead of print. PMID: 37311879
3. Chen PV, Rashad A, Gangrade A, Barros NR, Khademhosseini A, Tam J, Varadarajan P, **Agrawal DK**, Thankam FG: Stem cell-derived cardiomyocyte-like cells in myocardial regeneration. *Tissue Eng Part B Rev*. 2023 Jun 9. doi: [10.1089/ten.TEB.2023.0049](https://doi.org/10.1089/ten.TEB.2023.0049) . Online ahead of print. PMID: 37294202
 4. Supra Rajiv, Supra Rajesh, **Agrawal DK**: Surgical approaches in total hip arthroplasty. *J Orthop Sports Med*. 2023; 5(2): 232-240
 5. Zadeh FH, Wilson DR, **Agrawal DK**: Long COVID: Complications, underlying mechanisms, and treatment strategies. *Arch Microbiol Immunol*. 2023; 7(2): 36-61.
 6. Rai V, **Agrawal DK**: Role of transcription factors and microRNAs in regulating fibroblast reprogramming in wound healing. *J Bioinformatics and Systems Biology* 2023; 6(2): 110-120.
 7. DeMarco N, Rai V, Wilson DR, **Agrawal DK**: Oncostatin M, serpins, and oxidative stress in extracellular matrix remodeling and arteriovenous fistula maturation. *Cardiol Cardiovasc Med*. 2023; 7(2):129-140.
 8. Siddiqi I, Marino M, **Agrawal DK**, Baron D, Connett DA, Miulli D: Cellular mechanisms of electromagnetic field in traumatic brain injury. *J Biotechnol Biomed*. 2023; 6(2): 95-104. DOI:10.26502/jbb.2642-91280075; PMID:
 9. Supra R, Wilson DR, **Agrawal DK**: Therapeutic potential of “Smart Exosomes” in peripheral nerve regeneration. *J Biotechnol Biomed*. 2023; 6(2): 189-196.
 10. Lopes LA, **Agrawal DK**: Thromboembolism in the complications of long COVID-19. *Cardiol Cardiovasc Med*. 2023; 7(2):123-128.
 11. Liu M, Panagopoulos AN, Oguz UM, Samant S, Vasa CH, **Agrawal DK**, Chatzizisis YS: Role of triggering receptor expressed on myeloid cells-1 in the mechanotransduction signaling pathways that link low shear stress with inflammation in atherosclerosis. *Sci Reports (Nature)*. 2023 Mar 21;13(1):4656. DOI: [10.1038/s41598-023-31763-w](https://doi.org/10.1038/s41598-023-31763-w) ; PMID: 36944850
 12. Yazdani AN, DeMarco N, Patel P, Abdi A, Velpuri P, **Agrawal DK**, Rai V: Adverse hematological effects of COVID-19 vaccination and pathomechanisms of low acquired immunity in patients with hematological malignancies. *Vaccines (Basel)* 2023, 11(3): 662 (pages 1-17). <https://doi.org/10.3390/vaccines11030662> ; PMID: 36992246
 13. Kuan R, Nath S, **Agrawal DK**, Thankam FG: Response to acute hyperglycemia and high fructose in cultured tenocytes. *J Biochem*. 2023 March 15; DOI: [10.1093/jb/mvad023](https://doi.org/10.1093/jb/mvad023) ; PMID: 36921293
 14. Noothi S, Radwan MM, **Agrawal DK**: Residual risks and evolving atherosclerotic plaques. *Mol Cell Biochem*. 2023 March 10; <https://doi.org/10.1007/s11010-023-04689-0>; PMID: 36897542
 15. Le Hoangvi, Rai V, **Agrawal DK**: Cholesterol: An important determinant of muscle atrophy in astronauts. *J Biotechnol Biomed*. 2023; 6(1): 67-79. DOI: [10.26502/jbb.2642-91280072](https://doi.org/10.26502/jbb.2642-91280072) ; PMID: 37006714 ; PMCID: [PMC10062007](https://pubmed.ncbi.nlm.nih.gov/PMC10062007/)
 16. Yazdani AN, Velpuri P, Abdi A, Patel P, DeMarco N, **Agrawal DK**, Rai V: Adverse hematological associated with COVID-19 therapeutics. *Hematology Reports*. February 2023 – under revision.
 17. Supra R, **Agrawal DK**: Peripheral nerve regeneration: Opportunities and challenges. *J Spine Res Surg*. 2023;5(1):10-18. DOI: [10.26502/fjsrs0052](https://doi.org/10.26502/fjsrs0052) ; PMID:36873243; PMCID: [PMC9983644](https://pubmed.ncbi.nlm.nih.gov/PMC9983644/)
 18. Patel P, Rai V, **Agrawal DK**: Role of oncostatin-M in ECM remodeling and plaque vulnerability. *Mol Cell Biochem*. 2023 Mar 1; DOI: [10.1007/s11010-023-04673-8](https://doi.org/10.1007/s11010-023-04673-8) ; PMID:

36856919

19. Velpuri P, Rai V, **Agrawal DK**: Role of sirtuins in attenuating plaque vulnerability in atherosclerosis. *Mol Cell Biochem*. 2023 March 23; DOI: [10.1007/s11010-023-04714-2](https://doi.org/10.1007/s11010-023-04714-2) ; PMID: 36952068
20. Rai V, Abdo J, **Agrawal DK**: Biomarkers for early detection of esophageal cancers. *Int J Med Sci*. 2023 Feb 7;24(4):3316. DOI: [10.3390/ijms24043316](https://doi.org/10.3390/ijms24043316) ; PMID:36834728; PMCID: [PMC9968115](https://pubmed.ncbi.nlm.nih.gov/PMC9968115/)
21. Supra R, **Agrawal DK**: Immunotherapeutic strategies in the management of osteosarcoma. *J Orthop Sports Med*. 2023; 5(1): 32-40. DOI: [10.26502/josm.511500076](https://doi.org/10.26502/josm.511500076) ; PMID: 36937115; PMCID: [PMC10018813](https://pubmed.ncbi.nlm.nih.gov/PMC10018813/)
22. Liu M, Samant S, Hasini Vasa C, Pedrighi RM, Oguz UM, Ryu S, Wei T, Anderson DR, **Agrawal DK**, Chatzizisis YS: Co-culture models of endothelial cells, macrophages, and vascular smooth muscle cells for the study of the natural history of atherosclerosis. *PLoS ONE* 2023; 18(1): e0280385. <https://doi.org/10.1371/journal.pone.0280385> : PMID: 36662769; PMCID: [PMC9858056](https://pubmed.ncbi.nlm.nih.gov/PMC9858056/)
23. Fang W, Bonavida V, **Agrawal DK**, Thankam FG: Hyperlipidemia in tendon injury: Chronicles of low-density lipoproteins. *Cell & Tissue Res*. 2023 Feb. 4; DOI: [10.1007/s00441-023-03748-8](https://doi.org/10.1007/s00441-023-03748-8) ; PMID: 36738312.
24. Patchana T, **Agrawal DK**, Connett D, Baron D, Miulli D: Immunomodulatory effect of electromagnetic field in the treatment of traumatic brain injury. *J Biotechnol Biomed*. 2023; 6(1): 32-46; DOI: [10.26502/jbb.2642-91280069](https://doi.org/10.26502/jbb.2642-91280069) ; PMID: 36865683; PMCID: [PMC9977325](https://pubmed.ncbi.nlm.nih.gov/PMC9977325/)
25. Littig JPB, Moellmer R, **Agrawal DK**, Rai V: Future applications of exosomes delivering resolvins and cytokines in facilitating diabetic foot ulcer healing. *World Journal of Diabetes*. 2023 Jan 15;14(1):35-47. DOI: [10.4239/wjd.v14.i1.35](https://doi.org/10.4239/wjd.v14.i1.35) ; PMID: 36684384; PMCID: [PMC9850797](https://pubmed.ncbi.nlm.nih.gov/PMC9850797/)
26. Supra R, **Agrawal DK**: Mechanobiology of microRNAs in intervertebral disk degeneration. *J Spine Res Surg*. 2023; 5(1): 1-9; doi: [10.26502/fjsrs0051](https://doi.org/10.26502/fjsrs0051) ; PMID:36777190; PMCID: [PMC9912327](https://pubmed.ncbi.nlm.nih.gov/PMC9912327/)
27. Supra R, **Agrawal DK**: Innate immune response in orthopedic implant failure. *J Orthop Sports Med*. 2023; 5(1): 9-19; doi: [10.26502/josm.511500073](https://doi.org/10.26502/josm.511500073) ; PMID: 36777741; PMCID: [PMC9912346](https://pubmed.ncbi.nlm.nih.gov/PMC9912346/)
28. Singh D, Rai V, **Agrawal DK**: Regulation of collagen I and collagen III in tissue injury and regeneration. *Cardiol Cardiovasc Med*. 2023; 7(1): 5-16; doi: [10.26502/fccm.92920302](https://doi.org/10.26502/fccm.92920302) ; PMID: 36776717; PMCID: [PMC9912297](https://pubmed.ncbi.nlm.nih.gov/PMC9912297/)
29. Rai V, Moellmer R, **Agrawal DK**: Role of fibroblast plasticity and heterogeneity in modulating angiogenesis and healing in the diabetic foot ulcer. *Mol Biol Rep*. 2022 Dec 17. doi: [10.1007/s11033-022-08107-4](https://doi.org/10.1007/s11033-022-08107-4) ; PMID: 36528662.
30. Fang W, Sekhon S, Teramoto D, Fung C, La V, Duong C, Doescher C, Thai A, Thankam FG, **Agrawal DK**: Pathological alterations in the expression status of rotator cuff tendon matrix components in hyperlipidemia. *Mol Cell Biochem*. 2022 Dec 28; doi: [10.1007/s11010-022-04643-6](https://doi.org/10.1007/s11010-022-04643-6) ; PMID: 36576716.
31. Rai V, **Agrawal DK**: Male or Female Sex: considerations and translational aspects in diabetic foot ulcer research using rodent models. *Mol Cell Biochem*. 2022 Dec 27; doi: [10.1007/s11010-022-04642-7](https://doi.org/10.1007/s11010-022-04642-7) ; PMID: 36574098
32. Sedighim S, Chen Y, Xu C, Mohindra R, Liu H, **Agrawal DK**, Thankam FG: Carboxymethyl cellulose-alginate interpenetrating hydroxy ethyl methacrylate crosslinked polyvinyl alcohol reinforced hybrid hydrogel templates with improved biological performance for cardiac tissue engineering. *Biotechnol Bioeng*. 2022 Nov 22. DOI: [10.1002/bit.28291](https://doi.org/10.1002/bit.28291) ; PMID: 36412070
33. Bonavida V, Ghassemi K, Ung G, Inouye K, Thankam FG, **Agrawal DK**: Novel approaches to program cells to differentiate into cardiomyocytes in myocardial regeneration. *Reviews in Cardiovasc Med*. 2022; 23(12): 392; <https://doi.org/10.31083/j.rcm2312392>.

34. Singh D, Rai V, **Agrawal DK**: Non-coding RNAs in regulating plaque progression and remodeling of extracellular matrix in atherosclerosis. *Int J Med Sci.* 2022; 23(2): 13731; <https://doi.org/10.3390/ijms232213731>; PMID: 36430208
35. Littig JPB, Moellmer R, Estes AM, **Agrawal DK**, Rai V: Increased population of CD40+ fibroblasts is associated with impaired wound healing and chronic inflammation in diabetic foot ulcers. *J Clin Med.* 2022; 11(21): 6335; <https://doi.org/10.3390/jcm11216335>; PMID: 36362563
36. Yazdani AN, Rai V, **Agrawal DK**: Rotator cuff health, pathology, and repair in the perspective of hyperlipidemia. *J Orthop Sports Med.* 2022; 4(4): 263-275. <https://doi.org/10.26502/josm.511500063>; PMID: 36381991; PMCID: PMC9648405; NIHMSID: NIHMS1845256
37. Thankam FG, La V, **Agrawal DK**: Single cell genomics illustrate heterogeneous phenotypes of myocardial fibroblasts under ischemic insults. *Biochem Cell Biol.* 2022 Nov 3. <https://doi.org/10.1139/bcb-2022-0229>; PMID: 36458696
38. Singh H, **Agrawal DK**: Therapeutic potential of targeting the HMGB1/RAGE axis in inflammatory diseases. *Molecules* 2022; 27(21): 7311; <https://doi.org/10.3390/molecules27217311>; PMID: 36364135
39. Thankam FG, Sedighim S, Kuan R, **Agrawal DK**: Ischemia challenged epicardial adipose tissue stem cells-derived extracellular vesicles alter the gene expression of cardiac fibroblasts to cardiomyocyte like phenotype. *Transl Res.* 2022 Oct 20; S1931-5244(22)00223-7. DOI: [10.1016/j.trsl.2022.10.004](https://doi.org/10.1016/j.trsl.2022.10.004); PMID: 36273744.
40. Doescher C, Thai A, Cha E, Cheng PV, **Agrawal DK**, Thankam FG: Intelligent hydrogels in myocardial regeneration and engineering. *Gels* 2022, 8(9): 576. DOI: [10.3390/gels8090576](https://doi.org/10.3390/gels8090576); PMID: 36135287.
41. Rai V, Singh H, **Agrawal DK**: Targeting the crosstalk of immune response and vascular smooth muscle cells phenotype switch for arteriovenous fistula maturation. *Int J Mol Sci.* 2022 Oct 10; 23(19): 12012; DOI: [10.3390/ijms231912012](https://doi.org/10.3390/ijms231912012); PMID: 36233314.
42. Mohindra R, Mohindra R, **Agrawal DK**, Thankam FG: Bioactive extracellular matrix fragments in tendon repair. *Cell and Tissue Research* 2022 Nov; 390(2): 131-140. DOI: [10.1007/s00441-022-03684-z](https://doi.org/10.1007/s00441-022-03684-z); PMID: 36074173.
43. Thankam FG, Radwan MM, Keklikian A, Atwal M, Rai T, **Agrawal DK**: Fluoroscopy-guided minimally invasive swine model of myocardial infarction by left coronary artery occlusion for regenerative cardiology. *Cardiol Cardiovasc Med.* 2022; 6(5): 466-472. DOI: [10.26502/fccm.92920284](https://doi.org/10.26502/fccm.92920284); PMID: 36203790; PMCID: [PMC9534332](https://pubmed.ncbi.nlm.nih.gov/PMC9534332/)
44. Thankam FG, Khwaja B, Nguyen M, Ahsan O, **Agrawal DK**: Acute exposure of minimally ox-LDL elicits survival responses by downregulating the mediators of NLRP3 inflammasome in cultured RAW 264.7 macrophages. *J Biochem.* 2022 Oct 19; 172(5): 265-276. DOI: [10.1093/jb/mvac063](https://doi.org/10.1093/jb/mvac063); PMID: 35993502.
45. Rai V, Radwan MM, Nooti S, Thankam FG, Singh H, **Agrawal DK**: TLR-4 inhibition attenuates inflammation, thrombosis, and stenosis in arteriovenous fistula in Yucatan miniswine. *Cardiol Cardiovasc Med.* 2022; 6 (5):432-450; DOI: [10.26502/fccm.92920280](https://doi.org/10.26502/fccm.92920280); PMID: 36147190; PMCID: [PMC9491704](https://pubmed.ncbi.nlm.nih.gov/PMC9491704/)
46. Rai V, Mathews G, **Agrawal DK**: Translational and clinical significance of DAMPs, PAMPs, and PRRs in trauma-induced inflammation. *Arch Clin Biomed Res.* 2022; 6 (5): 673-685; DOI: [10.26502/acbr.50170279](https://doi.org/10.26502/acbr.50170279); PMID: 36147548; PMCID: [PMC9491702](https://pubmed.ncbi.nlm.nih.gov/PMC9491702/)
47. Singh H, **Agrawal DK**: Recent Advancements in the discovery of cereblon-based protease-targeted chimeras with potential for therapeutic intervention. *Future Med Chem.* 2022 Oct; 14(19): 1403-1416. DOI: [10.4155/fmc-2022-0149](https://doi.org/10.4155/fmc-2022-0149); PMID: 36047364

48. Mahajan A, Singh H, Singh A, **Agrawal DK**, Arora A, Chundawat TS: Trifluoromethylated Quinolone-Hydantoin Hybrids: Synthesis and antibacterial evaluation. *Sci* **2022**, 4(3), 30; <https://doi.org/10.3390/sci4030030> ; PMID: 36047364
49. Rai V, Moellmer R, **Agrawal DK**: Stem Cells and angiogenesis: implications and limitations in enhancing chronic diabetic foot ulcer healing. *Cells*. 2022 Jul 25;11(15):2287. DOI: [10.3390/cells11152287](https://doi.org/10.3390/cells11152287) ; PMID: 35892584
50. Rabadi D, Seo S, Wong B, Chung D, Rai V, **Agrawal DK**: Immunopathogenesis, early detection, current therapies, and prevention of Plantar Fasciitis: A concise review. *Int Immunopharmacol*. 2022 Sep; 110:109023. DOI: [10.1016/j.intimp.2022.109023](https://doi.org/10.1016/j.intimp.2022.109023) ; PMID: 35834954
51. Rai V, **Agrawal DK**: Transcriptional and epigenetic factors associated with early thrombosis of femoral artery involved in arteriovenous fistula. *Proteomes* 2022 Apr 30;10(2):14. DOI: [10.3390/proteomes10020014](https://doi.org/10.3390/proteomes10020014) ; PMID: 35645372.
52. Samra G, Rai V, **Agrawal DK**: Heterogeneous Population of Immune cells Associated with Early Thrombosis in Arteriovenous Fistula. *J Surg Res. (Houst)* 2022; 5(3): 423-434; DOI: [10.26502/jsr.10020237](https://doi.org/10.26502/jsr.10020237) ; PMID: 35937643 ; PMCID: [PMC9354142](https://pubmed.ncbi.nlm.nih.gov/PMC9354142/)
53. Singh H, **Agrawal DK**: Therapeutic potential of targeting the receptor for advanced glycation end products (RAGE) by small molecule inhibitors. *Drug Dev Res*. 2022; 83(6): 1257-1269. <https://doi.org/10.1002/ddr.21971>; PMID: 35781678
54. Wais T, Hasan M, Rai V, **Agrawal DK**: Gut-brain communication in COVID-19: Potential biomarkers and interventional strategies. *Expert Review of Clin Immunol*. 2022; 18(9): 947-960. DOI: [10.1080/1744666X.2022.2105697](https://doi.org/10.1080/1744666X.2022.2105697) ; PMID: 35868344
55. Kesler A, **Agrawal DK**, Thankam FG: Toll-like receptors and damage associated molecular patterns in the pathogenesis of heart transplant rejection. *Mol Cell Biochem*. 2022; 477(12): 2841-2850. DOI: [10.1007/s11010-022-04491-4](https://doi.org/10.1007/s11010-022-04491-4) ; PMID: 35678986.
56. Singh H, Rai V, **Agrawal DK**: LPS and oxLDL-induced S100A12 and RAGE expression in carotid arteries of atherosclerotic Yucatan microswine. *Molecular Biology Reports* 2022; 49(9): 8663-8672. DOI: [10.1007/s11033-022-07703-8](https://doi.org/10.1007/s11033-022-07703-8) ; PMID: 35771356.
57. Thankam FG, Rai T, Liu J, Tam J, **Agrawal DK**: Minimally oxidized-LDL-driven alterations in the level of pathological mediators and biological processes in carotid atherosclerosis. *Cardiol Cardiovasc Med*. 2022; 6(2):137-156. doi: <https://doi.org/10.26502/fccm.92920251>; PMID: 35531433.
58. Chang A, Tam J, **Agrawal DK**, Liu H, Varadarajan P, Pai R, Thankam FG: Synthetic Fibroblasts: *Terra incognita* in cardiac regeneration. *Tissue Engineering- Part B Rev*. 2022 Dec; 28(6): 1235-1241. DOI: [10.1089/ten.TEB.2022.0050](https://doi.org/10.1089/ten.TEB.2022.0050) ; PMID: 35535856
59. Rai V, Dilisio MF, Samadi F, **Agrawal DK**: Counteractive effects of IL-33 and IL-37 on inflammation in osteoarthritis. *Int J Environmental Research and Public Health* 2022 May 7;19(9):5690. DOI: [10.3390/ijerph19095690](https://doi.org/10.3390/ijerph19095690) ; PMID: 35565085
60. Rai V, **Agrawal DK**: Renin-angiotensin system in the maturation and failure of arteriovenous fistula. Springer Nature Book, "*Renin-Angiotensin System in Cardiovascular Disease*". Edited by Naranjan S. Dhalla – Springer Press - June 2022 – In press.
61. Panagopoulos A, Samant S, Bakhos JJ, Liu M, Khan B, Makadia J, Mohammad F, Kievit FM, **Agrawal DK**, Chatzizisis YS: Triggering receptor expressed on myeloid cells-1 (TREM-1) inhibition in atherosclerosis. *Pharmacology & Therapeutics* 2022 Oct; 238: 108182. <https://doi.org/10.1016/j.pharmthera.2022.108182>. PMID: 35390422.
62. Lopes LA, **Agrawal DK**: Post-operative atrial fibrillation: Current treatments and etiologies. *J. Surg Res. (Hous.)* 2022; 5(1): 159-172; <https://doi.org/10.26502/jsr.10020209>; PMC: 9017863; NIHMSID: 1794799; PMID:35445200.
63. Singh H, **Agrawal DK**: Recent advances in the development of active hybrid molecules in the

- treatment of cardiovascular diseases. *Bioorg Med Chem.* 2022 May 15; 62:116706. doi: [10.1016/j.bmc.2022.116706](https://doi.org/10.1016/j.bmc.2022.116706); PMID: 35364524.
64. Thankam FG, Huynh J, Fang W, Chen Y, **Agrawal DK**: Exosomal-ribosomal proteins-driven heterogeneity of epicardial adipose tissue derived stem cells under ischemia for cardiac regeneration. *J Tissue Eng Regen Med.* 2022 Apr; 16(4): 396-408. <https://doi.org/10.1002/term.3289>. PMID: 35142442
 65. Rai V, **Agrawal DK**: Transcriptomic analysis identifies differentially expressed genes associated with vascular cuffing and chronic inflammation mediating early thrombosis in arteriovenous fistula. *Biomedicines* 2022 Feb 13;10(2):433. doi: [10.3390/biomedicines10020433](https://doi.org/10.3390/biomedicines10020433). PMID: 35203642.
 66. Samra G, Rai V, **Agrawal DK**: Innate and adaptive immune cells associate with arteriovenous fistula maturation and failure. *Can J Physiol Pharmacol.* 2022; 100(8): 716-727. DOI: [10.1139/cjpp-2021-0731](https://doi.org/10.1139/cjpp-2021-0731); PMID: 35671528.
 67. Rai V, Moellmer R, **Agrawal DK**: The role of CXCL8 in chronic nonhealing diabetic foot ulcer and phenotypic change in fibroblast: A molecular perspective. *Mol Biol Rep.* 2022 Feb; 49(2):1565-1572. DOI: [10.1007/s11033-022-07144-3](https://doi.org/10.1007/s11033-022-07144-3); PMID: 35044539
 68. Rai V, Moellmer R, **Agrawal DK**: Clinically relevant experimental rodent models of diabetic foot ulcer. *Mol Cell Biochem* 2022 Apr; 477(4): 1239-1247; DOI: [10.1007/s11010-022-04372-w](https://doi.org/10.1007/s11010-022-04372-w); PMID: 35089527.
 69. Thankam FG, Wilson VED, Radwan MM, Siddique A, **Agrawal DK**: Involvement of ischemia-driven 5-lipoxygenase-resolvin-E1-chemokine like receptor-1 axis in the resolution of post-coronary artery bypass graft inflammation in coronary arteries. *Mol Biol Rep.* 2022 Apr; 49(4): 3123-3134; doi: [10.1007/s11033-022-07143-4](https://doi.org/10.1007/s11033-022-07143-4); PMID: 35061143.
 70. Davis G, Li K, Thankam FG, Wilson DR, **Agrawal DK**: Ocular Transmissibility of COVID-19: Possibilities and Perspectives. *Mol Cell Biochem* 2022 Mar; 477(3): 849-864; <https://doi.org/10.1007/s11010-021-04336-6>; PMID: 35066705
 71. Thankam FG, Sanchez DJ, **Agrawal DK**: Design of the Lentivirus-driven sustained LR12 delivery system for TREM-1 inhibition for palliating atherosclerosis. *Mol Cell Biochem* 2022 Mar; 477(3): 701-710. DOI: [10.1007/s11010-021-04321-z](https://doi.org/10.1007/s11010-021-04321-z); PMID: 35001222
 72. Rai V, Radwan MM, **Agrawal DK**: IL-33, IL-37, and Vitamin D Interaction Mediate Immunomodulation of Inflammation in Degenerating Cartilage. *Antibodies (Basel)* 2021 Oct 26;10(4):41. DOI: [10.3390/antib10040041](https://doi.org/10.3390/antib10040041); PMID: 34842603
 73. Rai V, **Agrawal DK**: Regulation of TREM-1-mediated inflammation in hepatocellular carcinoma. *Reports* 2021; 4, 17; doi: 10.3390/reports4020017.
 74. Rai V, **Agrawal DK**: Immunomodulation of IL-33 and IL-37 with Vitamin D in the Neointima of Coronary Artery: A Comparative Study between Balloon Angioplasty and Stent in Hyperlipidemic Microswine. *Int J Mol Sci.* 2021 Aug 17; 22(16):8824. doi: [10.3390/ijms22168824](https://doi.org/10.3390/ijms22168824); PMID: 34445530.
 75. **Agrawal DK**: *Commentary*: Unraveling the mystery of transient innate capacity for neonatal heart regeneration following injury. *J Thoracic Cardiovasc Surg.* 2022 Dec; 164(6): e407-e408. DOI: [10.1016/j.jtcvs.2021.08.069](https://doi.org/10.1016/j.jtcvs.2021.08.069). PMID: 34538642
 76. **Agrawal DK**, Rai V: *Commentary*: Revival of Motor and Sensory Functions: Is this a catholicon or hollow promise for paraplegia? *J Thoracic Cardiovasc Surg Open* 2021; 7: 43-44. DOI:<https://doi.org/10.1016/j.xjon.2021.06.022>; PMID: 36003689; PMCID: [PMC9390623](https://pubmed.ncbi.nlm.nih.gov/PMC9390623/)
 77. **Agrawal DK**, Thankam FG: *Commentary*: Evidence based human stem cell therapy for myocardial healing: 'Miles to go'. *J Thoracic Cardiovasc Surg Open* 2021; 8: 144-146; DOI:<https://doi.org/10.1016/j.xjon.2021.06.019>; PMID: 36004196; PMCID: [PMC9390384](https://pubmed.ncbi.nlm.nih.gov/PMC9390384/)
 78. Radwan MM, Siddique A, Thankam GF, Kouassi KT, **Agrawal DK**: Translational model of

- vein graft failure following CABG surgery in atherosclerotic microswine. *Gen Thoracic Cardiovasc Surgery* 2022 May; 70(5): 445-454. DOI: [10.1007/s11748-021-01725-y](https://doi.org/10.1007/s11748-021-01725-y), PMID: **34699002**
79. Thankam FG, **Agrawal DK**: Single Cell Genomics Identifies Unique Cardioprotective Phenotype of Stem Cells derived from Epicardial Adipose Tissue under Ischemia. *Stem Cell Rev Rep*. 2022 Jan;18(1):294-335. DOI: [10.1007/s12015-021-10273-0](https://doi.org/10.1007/s12015-021-10273-0); PMID: 34661829
 80. Thankam FG, Diaz C, Chandra I, Link J, Newton J, Dilisio MF, **Agrawal DK**: Hybrid interpenetrating hydrogel network favoring the bidirectional migration of tenocytes for rotator cuff tendon regeneration. *J Biomed Mater Res B Appl Biomater*. 2022 Feb; 110(2):467-477. Doi: [10.1002/jbm.b.34924](https://doi.org/10.1002/jbm.b.34924); PMID: 34342931
 81. Chandrasekhar SK, Thankam FG, Ouseph JC, **Agrawal DK**: Myocardial tissue engineering: Fundamentals and future. In: *Tissue Engineering: Current Status and Challenges*; Eds. CP Sharma, TC Chandy, V Thomas, FG Thankam; Academic Press 2022; Chapter 3; pp. 33-52.
 82. Kommeri R, **Agrawal DK**, Thankam FG: Overview of current technologies for tissue engineering and regenerative medicine. In: *Tissue Engineering: Current Status and Challenges*; Eds. CP Sharma, TC Chandy, V Thomas, FG Thankam; Academic Press 2022; Chapter 2; pp. 11-32.
 83. Thankam FG, **Agrawal DK**, Sharma CP: Introduction. In: *Stem Cells and COVID-19*; Eds, CP Sharma, DK Agrawal, FG Thankam; 2022; Chapter 1; pp. 1-6; Elsevier Press.
 84. Kommeri R, Thankam FG, **Agrawal DK**, Wilson DR: Characteristics and immunobiology of COVID-19. In: *Stem Cells and COVID-19*; Eds, CP Sharma, DK Agrawal, FG Thankam; 2022; Chapter 2; pp. 7-22; Elsevier Press.
 85. Kuan R, **Agrawal DK**, Thankam FG: Treg cells in atherosclerosis. *Mol Biol Reports* – 2021 May; 48(5):4897-4910. doi: <https://doi.org/10.1007/s11033-021-06483-x>; PMID: 34117978
 86. Tam J, Thankam FG, **Agrawal DK**, Radwan-Ahmed MM: Critical Role of LOX-1-PCSK9 Axis in the Pathogenesis of Atheroma Formation and Its Instability. *Heart Lung Circulation* 2021 Oct; 30(10):1456-1466. <https://doi.org/10.1016/j.hlc.2021.05.085>; PMID: 34092505
 87. Fang W, **Agrawal DK**, Thankam FG: ‘Smart-Exosomes’: A Smart Approach for Tendon Regeneration. *Tissue Eng Part B* 2022 Jun; 28(3): 613-625. DOI: [10.1089/ten.TEB.2021.0075](https://doi.org/10.1089/ten.TEB.2021.0075); PMID: 34074136
 88. Mittal SK, Abdo J, Adrien MP, Bayu BA, Kline JR, Sullivan MA, **Agrawal DK**: Current State of Prognostication, Therapy and Prospective Innovations for Barrett’s-Related Esophageal Adenocarcinoma: a literature review. *J Gastrointes Oncol*. 2021; 12(4): 1197-1214. doi: 10.21037/jgo-21-117; PMID: 34532080
 89. Kato B, Wisser G, **Agrawal DK**, Wood T, Thankam FG: 3D Bioprinting of Cardiac Tissue: Current Challenges and perspectives. *J Mater Sci Mater Med*. 2021 May 6;32(5):54. DOI: [10.1007/s10856-021-06520-y](https://doi.org/10.1007/s10856-021-06520-y); PMID: 33956236
 90. Thankam FG, Larsen NK, Varghese A, Bui T-N, Reilly M, Fitzgibbons RJ, **Agrawal DK**: Biomarkers and heterogeneous fibroblast phenotype associated with incisional hernia. *Mol Cell Biochem*. 2021 Sep; 476(9): 3353-3363. doi: [10.1007/s11010-021-04166-6](https://doi.org/10.1007/s11010-021-04166-6). PMID: 33942219
 91. Singh H, Rai V, Nooti SK, **Agrawal DK**: Novel Ligands and Modulators of Triggering Receptor Expressed on Myeloid Cells Receptor Family: 2015-2020 Updates. *Expert Opinion on Therapeutic Patents* 2021 Jun; 31(6): 549-561. <https://doi.org/10.1080/13543776.2021.1883587>; PMID: 33507843
 92. Singh H, Rai V, **Agrawal DK**: Discerning the promising binding sites of S100/calgranulins and their therapeutic potential in atherosclerosis. *Expert Opinion on Therapeutic Patents* 2021 Nov; 31(11): 1045-1057. doi: [10.1080/13543776.2021.1937122](https://doi.org/10.1080/13543776.2021.1937122). PMID: 34056993
 93. Nooti SK, Rai V, Singh H, Potluri V, **Agrawal DK**: Strokes, Neurological and

- Neuropsychiatric Disorders in COVID-19. In: Sobti, R.C., Dhalla, N.S., Watanabe, M., Sobti, A. (eds) *Delineating Health and Health System: Mechanistic Insights into Covid 19 Complications*, pp. 209-231; Springer 2021; https://doi.org/10.1007/978-981-16-5105-2_12.
94. Shofler D, Rai V, Mansager S, Cramer K, **Agrawal DK**: Effect of Resolvin Mediators in the Immunopathology of Diabetes and Wound Healing. *Expert Rev Clin Immunol.* 2021 Jun; 17(6): 681-690. DOI: [10.1080/1744666X.2021.1912598](https://doi.org/10.1080/1744666X.2021.1912598) ; PMID: 33793355
 95. Nguyen M, Thankam FG, **Agrawal DK**: Sterile inflammation in the pathogenesis of maturation failure of arteriovenous fistula. *J Mol Med. (Berl)* 2021; 99(6): 729-741. DOI: [10.1007/s00109-021-02056-4](https://doi.org/10.1007/s00109-021-02056-4) ; PMID: 33666676
 96. Khwaja B, Thankam FG, **Agrawal DK**: Mitochondrial DAMPs and altered mitochondrial dynamics in oxLDL-burden in atherosclerosis. *Mol Cell Biochem.* 2021 Apr; 476(4): 1915-1928. doi: [10.1007/s11010-021-04061-0](https://doi.org/10.1007/s11010-021-04061-0) ; PMID: 33492610.
 97. Mohindra R, **Agrawal DK**, Thankam FG: Altered vascular extracellular matrix in the pathogenesis of atherosclerosis. *J Cardiovasc Translational Research* 2021 Aug; 14(4):647-660. <https://doi.org/10.1007/s12265-020-10091-8>; PMID: 33420681
 98. Asensio JA, Dabestani PJ, Miljkovic SS, Wenzl FA, Kessler JJ, Kalamchi LD, Kotaru TR, **Agrawal DK**: Traumatic penetrating arteriovenous fistulas: A collective review. *Eur J Trauma Emergency Surg.* 2022; 48(2):775-789. <http://dx.doi.org/10.1007/s00068-020-01574-z> : PMID: 33386864
 99. Truong R, Thankam FG, **Agrawal DK**: Immunological mechanisms underlying sterile inflammation in the pathogenesis of atherosclerosis: potential sites for intervention. *Expert Rev Clin Immunol.* 2021 Jan; 17(1):37-50; <https://doi.org/10.1080/1744666X.2020.1860757>; PMID: 33280442
 100. Chen HC, **Agrawal DK**, Thankam FG: Biomaterials-driven sterile inflammation. *Tissue Eng Part B Rev.* 2022 Feb; 28(1): 22-34. <http://dx.doi.org/10.1089/ten.TEB.2020.0253>; PMID: 33213285
 101. Brown SM, Larsen NK, Thankam FG, **Agrawal DK**: Fetal cardiomyocyte phenotype, ketone body metabolism, and mitochondrial dysfunction in the pathology of atrial fibrillation. *Mol Cell Biochem.* 2021; 476(2): 1165-1178; <https://doi.org/10.1007/s11010-020-03980-8>; PMID: 33188453
 102. Rai V, Asensio JA, **Agrawal DK**: Danger Associated Molecular Patterns, Complements and other Novel Biomarkers in the Management of Trauma Patients. In: *“Current Therapy of Trauma and Surgical Critical Care*, Chapter 101; 3rd edition edited by Juan A. Asensio and Wayne J. Meredith; Elsevier 2023.
 103. Agrawal S, Subramanian S, Pallati PK, Sharma P, **Agrawal DK**, Nandipati KC: Increased expression of TREM-1 and macrophage polarization associates with insulin resistance in the obese population. *Am J Translational Res.* – under revision November 2022
 104. Brown S, Larsen N, Thankam FG, **Agrawal DK**: Regulatory role of cardiomyocyte metabolism via AMPK activation in modulating atrial structural, contractile, and electrical properties following atrial fibrillation. *Can J Physiol Pharmacol.* 2021 Jan; 99(1): 36-41. doi: <https://doi.org/10.1139/cjpp-2020-0313> PMID: 33049144
 105. Chandrasekhar SK, Thankam FG, Ouseph JC, **Agrawal DK**: Engineered cardiac tissue: Concepts and future. In: *Regenerated Organs: Future Perspectives*; Ed. Sharma CP; Academic Press January 2021; Chapter 7; pp. 133-152.
 106. Thankam FG, Wilson VED, **Agrawal DK**: Animal Models of Inflammatory Musculoskeletal Diseases for Tissue Engineering and Regenerative Medicine: Updates and Translational Application. In: *“Contemporary Issues in Biomedical Science: Futuristic Thought”*; Ed. RC Sobti, Springer 2021.

107. Thankam FG, Wilson VED, **Agrawal DK**: Preclinical models of intimal hyperplasia and restenosis to predict clinical events and develop novel therapies. In: *“Contemporary Issues in Biomedical Science: Futuristic Thought”*; Ed. RC Sobti, Springer 2021.
108. Thankam FG, Ayoub JG, Radwan Ahmed MM, Siddique A, Sanchez TC, Peralta RA, Pennington TJ, **Agrawal DK**: Association of hypoxia and mitochondrial damage associated molecular patterns in the pathogenesis of vein graft failure: a pilot study. *Translational Res.* 2021 Mar; 229: 38-52; DOI:<https://doi.org/10.1016/j.trsl.2020.08.010>; PMID: 32861831
109. Reilly MJ, Larsen NK, Agrawal S, Thankam FG, **Agrawal DK**, Fitzgibbons RJ: Selected conditions associated with an increased incidence of incisional hernia: a review of molecular biology. *Am J Surgery* 2021 May; 221(5): 942-949. doi: [10.1016/j.amjsurg.2020.09.004](https://doi.org/10.1016/j.amjsurg.2020.09.004) ; PMID: 32977928
110. **Agrawal DK**, Thankam FG: *Commentary*: Rainmaking the ‘Next-generation TAVI’ by anointing multi-disciplinary perceptions. *J Thoracic Cardiovasc Surg Open.* 2020; 3: 25-26. <https://doi.org/10.1016/j.xjon.2020.07.001>
111. Yates TH, Cooperman SR, Shofler D, **Agrawal DK**: Current concepts underlying the pathophysiology of acute Charcot neuroarthropathy in the diabetic foot and ankle. *Expert Rev Clin Immunol.* 2020 Aug;16(8):839-845; <https://doi.org/10.1080/1744666X.2020.1804869> ; PMID: 32735458
112. Satish M, Gunasekar P, Asensio JA, **Agrawal DK**: Vitamin D attenuates HMGB1-mediated neointimal hyperplasia after percutaneous coronary intervention in swine. *Mol Cell Biochem.* 2020; 474(1-2):219-228; doi: 10.1007/s11010-020-03847-y. PMID: 32737774
113. Thankam FG, Radwan MM, **Agrawal DK**: Inflammation and epicardial adipose tissue in the pathobiology of atherogenesis and neointimal hyperplasia following coronary intervention. In: *Biochemistry of Cardiovascular Dysfunction in Obesity*; Eds. Tappia PS, Bhullar SK, Dhalla NS; Springer December 2020; pages 235-266.
114. Thankam FG, **Agrawal DK**: Molecular chronicles of cytokine burst in COVID-19 patients with cardiovascular diseases. *J Thoracic Cardiovasc Surg.* 2021 Feb; 161(2): e217-e226. doi: <https://doi.org/10.1016/j.jtcvs.2020.05.083> ; PMID: 32631657
115. **Agrawal DK**, Thankam FG: *Commentary*: Divine decree or a novel panacea in CRISPR-Cas9-steered cellular reprogramming in the fate of failing heart. *J Thoracic Cardiovasc Surg.* 2022 Apr; 163(4): 1491-1493; doi: <https://doi.org/10.1016/j.jtcvs.2020.05.026>; PMID: 32651002
116. Thankam FG, **Agrawal DK**: *Commentary*: Cardinal virtues of multifarious hydrogel implant in cardiac resurrection. *J Thoracic Cardiovasc Surg.* 2022 Apr; 163(4): e274-e276; doi: <https://doi.org/10.1016/j.jtcvs.2020.05.012>; PMID: 32711977
117. Asensio JA, Dabestani PJ, Wenzl FA, Miljkovic SS, Kessler JJ 2nd, Fernandez CA, Becker T, Cornell D, Siu M, Voigt C, **Agrawal DK**: A systematic review of penetrating extracranial vertebral artery injuries. *J Vasc Surgery.* 2020 Jun;71(6):2161-2169; doi: 10.1016/j.jvs.2019.10.084; PMID: 31902594
118. Thankam FG, **Agrawal DK**: Hypoxia-driven secretion of extracellular matrix proteins in the exosomes reflects the asymptomatic pathology of rotator cuff tendinopathies. *Can J Physiol Pharmacol.* 2021 Feb; 99(2): 224-230. doi: 10.1139/cjpp-2020-0314. PMID: 32799660
119. **Agrawal DK**, Thankam FG: *Commentary*: Awakening the ‘Hibernating’ Myocardium: The pristine business of mesenchymal stem cells. *J Thoracic Cardiovasc Surg.* 2021 Jul; 162(1): e20-e22. doi: 10.1016/j.jtcvs.2020.01.046. PMID: 32115189
120. Peeples ES, Dafferner A, Jiang J, Lyden E, Punsoni M, **Agrawal DK**: Combined treatment with insulin-like growth factor 1 and AMD3100 improves motor outcome in a murine model of neonatal hypoxic-ischemic encephalopathy. *Dev Neurosci.* 2019; 41(5-6): 255-262. doi: 10.1159/000505264. PMID: 32053821

121. Boosani CS, **Agrawal DK**, Jiang Wanlin, Burke Taylor: MicroRNA-mediated regulation of JAK-STAT signaling in non-cancerous human diseases. In: *JAK-STAT Signaling in Diseases*, pp. 35-48, February 2020; DOI: 10.1201/9781351042468-01
122. Thankam FG, **Agrawal DK**: Infarct zone: a novel platform for exosome trade in cardiac tissue regeneration. *J Cardiovasc Transl Res.* 2020 Oct;13(5):686-701. doi: 10.1007/s12265-019-09952-8; PMID: 31907784
123. Jiang W, **Agrawal DK**, Boosani CS: Non-coding RNAs as epigenetic gene regulators in cardiovascular diseases. *Adv Exp Med Biol* 2020; 1229:133-148. doi: 10.1007/978-981-15-1671-9_7; PMID: 32285409
124. Thankam FG, Chandra IS, Diaz CG, Dilisio MF, Fleegel JP, Gross RM, **Agrawal DK**: Matrix regeneration proteins in the hypoxia-triggered exosomes of shoulder tenocytes and adipose-derived mesenchymal stem cells. *Mol Cell Biochem.* 2020 Feb; 465(1-2): 75-87. Doi: 10.1007/s11010-019-03669-7; PMID: 31797254
125. Satish M, **Agrawal DK**: Atherothrombosis and the NLRP3 inflammasome – endogenous mechanisms of inhibition. *Transl Res.* 2020 Jan; 215: 75-85. doi: 10.1016/j.trsl.2019.08.003. PMID: 31469975
126. Chandrasekhar SK, Thankam FG, **Agrawal DK**, Ouseph JC: Interface biology of stem cell-driven tissue engineering. In: *Biointegration of Medical Implant Materials* pp. 19-44, January 2020; doi: 10.1016/B978-0-08-102680-9.00002-0.
127. Rai V, Balters MW, **Agrawal DK**: Factors IX, XI, and XII: Potential therapeutic targets in atherothrombosis. *Rev Cardiovasc Med.* 2019 Dec; 20(4): 245-253. Doi: 10.31083/j.rcm.2019.04.56; PMID: 31912715
128. Bashir AZ, Bashir K, Hunter WJ, **Agrawal DK**: Cathepsin L expression in the carotid arteries of atherosclerotic swine. *Arch Med Sci Atheroscler Dis.* 2019 Dec; 4: e264-e267; doi: 10.5114/amsad.2019.90153; PMID: 32373754
129. Rai V, Boosani CS, **Agrawal DK**. The promising role of epigenetic mediators and microRNAs in the early diagnosis of cholangiocarcinoma. *World Acad. Science Journal.* 2019; 1(4): 165-176.
130. Gunasekar P, Satish M, Dabestani P, Jiang W, Boosani C, Radwan M, **Agrawal D**, Asensio J: Modulation of cathepsin L expression in the coronary arteries of atherosclerotic swine. *J Surg Res.* 2019 Nov; 243: 460-468; doi: 10.1016/j.jss.2019.06.102; PMID: 31377485
131. Boosani CS, Gunasekar P, **Agrawal DK**: An update on PTEN modulators – A patent review. *Expert Opin Ther Pat.* 2019 Nov; 29(11):881-889. Doi: 10.1080/13543776.2019.1669562. PMID: 31530116
132. Brozovich N, **Agrawal D**, Reddy G: A critical appraisal of adult trigger finger: Pathophysiology, treatment, and future outlook. *Plast Reconstr Surg Glob Open* 2019; 7: e2360. doi: 10.1097/GOX.0000000000002360; PMID: 31592381
133. **Agrawal DK**, Siddique A: Rejuvenation of “Broken Heart” with bioengineered gel (*Editorial Commentary*). *J Thorac Cardiovasc Surg.* 2019 Apr; 157(4):1491-1493. doi: 10.1016/j.jtcvs.2018.08.076; PMID: 30322689
134. Larsen NK, Reilly MJ, Thankam FG, Fitzgibbons RJ, **Agrawal DK**: Novel understanding of high mobility group box-1 in the immunopathogenesis of incisional hernias. *Expert Rev Clin Immunol* 2019 Jul; 15(7): 791-800. doi: 10.1080/1744666X.2019.1608822; PMID 30987468.
135. Satish M, Kumar G, **Agrawal DK**: Pro-inflammatory and pro-resolving mechanisms in the immunopathology of arteriovenous fistula maturation. *Expert Rev Cardiovasc Therapy* 2019 May 17(5): 369-376. doi: 10.1080/14779072.2019.1612745; PMID: 31056981
136. Subramanian S, Pallati PK, Rai V, Sharma P, **Agrawal DK**, Nandipati KC: Increased expression of triggering receptor expressed on myeloid cells-1 in the population with obesity

- and insulin resistance. *Obesity (Silver Spring)* 2019 Mar;27(3):513-515. doi: 10.1002/oby.22401; PMID: 30801988
137. Satish M, Saxena SK, **Agrawal DK**: Adipokine dysregulation and insulin resistance with atherosclerotic vascular disease: Metabolic syndrome or independent sequelae? *J Cardiovasc Translational Res.* 2019; 12(5):415-424. doi: 10.1007/s12265-019-09879-0; PMID: 30835048
 138. Connor DE, Paulus JA, Dabestani PJ, Thankam FK, Dilisio MF, Gross RM, **Agrawal DK**: Therapeutic potential of exosomes in rotator cuff tendon healing. *J Bone Miner Metab.* 2019 Sep; 37(5): 759-767. doi: 10.1007/s00774-019-01013-z; PMID: 31154535
 139. Swier VJ, Gunasekar P, Fleegel JP, Radwan MM, **Agrawal DK**: Vitamin D deficiency induces pro-inflammatory phenotype of epicardial adipose tissue to accelerate neointimal hyperplasia and atherogenesis following coronary intervention. – To be submitted for publication 2022.
 140. Thankam FG, Boosani CS, Dilisio MF, **Agrawal DK**: Epigenetic mechanisms and implications in tendon inflammation. *Int J Molec Med.* 43(1): 3-14, 2019. doi: 10.3892/ijmm.2018.3961; PMID: 30387824
 141. Rosenberg JH, Werner JH, Plitt GD, Noble VV, Spring JT, Stephens BA, Siddique A, Merritt-Genore HL, Moulton MJ, **Agrawal DK**: Immunopathogenesis and biomarkers of recurrent atrial fibrillation following ablation therapy in patients with preexisting atrial fibrillation. *Expert Rev Cardiovasc Therapy* 2019 Mar;17(3):193-207. doi: 10.1080/14779072.2019.1562902. PMID: 30580643
 142. Satish M, **Agrawal DK**: Pro-resolving lipid mediators in the resolution of neointimal hyperplasia pathogenesis of atherosclerotic diseases. *Expert Rev Cardiovasc Therapy* 2019 Mar;17(3):177-184. doi: 10.1080/14779072.2019.1563483. PMID: 30582389.
 143. Thankam FG, Evan DK, **Agrawal DK**, Dilisio MF: Collagen type III content of the long head of the biceps tendon as an indicator of glenohumeral arthritis. *Mol Cell Biochem.* 2019 Apr; 454(1-2): 25-31. doi: 10.1007/s11010-018-3449-y; PMID: 30267195
 144. Thankam FG, Palanikumar G, Fitzgibbons RJ, **Agrawal DK**: Molecular mechanisms and potential therapeutic targets in incisional hernia. *J Surg Res.* 2019 Apr; 236: 134-143. Doi: 10.1016/j.jss.2018.11.037; PMID: 30694748.
 145. Singhal S, Kapoor H, Subramanian S, **Agrawal DK**, Mittal SK: Polymorphisms of genes related to function and metabolism of vitamin D in esophageal adenocarcinoma. *J Gastroenterol Cancer* 2019 Dec; 50(4):867-878. Doi: 10.1007/s12029-018-0164-6; PMID: 30187205.
 146. Werner JH, Rosenberg JH, Um John Y, Moulton MJ, **Agrawal DK**: Molecular discoveries and treatment strategies by reprogramming in cardiac regeneration. *Translational Research* 2019 Jan; 203: 73-87. doi: 10.1016/j.trsl.2018.07.012; PMID: 30142308
 147. Thankam FG, Dilisio MF, **Agrawal DK**: All in one hydrogel approach: A translationally worthwhile scenario for rotator cuff tendinopathies. *Trends in Biomaterials and Artificial Organs* 32(1): 46-48, 2018.
 148. Thankam FG, Chandra IS, Kovilam AN, Diaz CG, Volberding BT, Dilisio MF, Radwan MM, Gross RM, **Agrawal DK**: Amplification of mitochondrial activity in the healing response following rotator cuff tendon injury. *Sci Reports* 2018 Nov 19; 8(1): 17027; doi: 10.1038/s41598-018-35391-7; PMID: 30451947; PMCID: PMC6242817.
 149. Addula M, Wilson VED, Reddymasu S, **Agrawal DK**: Immunopathological and molecular basis of functional dyspepsia and current therapeutic approaches. *Expert Rev Clin Immunol.* 2018 Oct; 14(10): 831-840. doi: 10.1080/1744666X.2018.1524756; PMID: 30235962.
 150. Kouassi KT, Gunasekar P, **Agrawal DK**, Jadhav GP: TREM-1; Is it a pivotal target for cardiovascular disease? *J Cardiovasc Development Dis.* 2018 Sep 7; 5(3). pii: E45. doi:

- 10.3390/jcdd5030045. PMID: 30205488
151. Thankam FG, Dilisio MF, Gross RM, **Agrawal DK**: Collagen I: A kingpin for rotator cuff tendon pathology. *Am J Translational Res*. 2018 Nov 15; 10(11):3291-3309. PMID: 30662587
 152. Gunasekar P, Fleegel JP, Swier VJ, Boosani CS, Radwan MM, **Agrawal DK**: Vitamin D and Macrophage Polarization in Epicardial Adipose Tissue of Atherosclerotic Tissue. *PLoS One* – 2018 Oct 8;13(10): e0199411. doi: 10.1371/journal.pone.0199411; PMID: 30296271
 153. Boosani CS, Gunasekar P, Block M, Jiang W, Zhang Z, Radwan MM, **Agrawal DK**: Inhibition of DNA methyltransferase-1 instigates the expression of DNA methyltransferase-3a in angioplasty induced restenosis. *Can J Physiol Pharmacol*. 2018 Oct; 96(10): 1030-1039. doi: 10.1139/cjpp-2018-0111; PMID: 30067080
 154. Thankam FG, Roesch ZK, Dilisio MF, Radwan MM, Kovilam A, Gross RM, **Agrawal DK**: HMGB1 priming triggers NLRP3 inflammasomes in the rotator cuff tendon injury. *Sci Reports (Nature)* 2018 Jun 11; 8(1): 8918. doi: 10.1038/s41598-018-27250-2; PMID: 29891998.
 155. Abdo J, Wichman CS, Dietz NE, Ciborowski P, Fleegel J, Mittal SK, **Agrawal DK**: Discovery of novel and clinically relevant markers in formalin-fixed paraffin-embedded esophageal cancer specimen. *Frontiers in Oncology – Gastrointestinal Cancers* 2018; 8:157; doi: 10.3389/fonc.2018.00157; PMID: 29868478
 156. Plitt GD, Spring JT, Moulton MJ, **Agrawal DK**: Mechanisms, diagnosis, and treatment of heart failure with preserved ejection fraction and diastolic dysfunction. *Expert Rev Cardiovasc Therapy* 2018 Aug; 16(8): 579-589. Doi: 10.1080/14779072.1497485; PMID: 29976104
 157. Jiang W, **Agrawal DK**, Boosani CS: Cell-specific histone modifications in atherosclerosis. *Mol Med Rep* 2018 Aug; 18(2): 1215-1224. doi: 10.3892/mmr.2018.9142; PMID: 29901135
 158. Rosenberg JH, Werner JH, Moulton MJ, **Agrawal DK**: Current modalities and mechanisms underlying cardioprotection by ischemic conditioning. *J Cardiovasc Translational Res* 2018 Aug; 11(4): 292-307. doi: 10.1007/s12265-018-9813-1; PMID: 29797232.
 159. Werner JH, Rosenberg JH, Keeley KL, **Agrawal DK**: Immunobiology of periprosthetic inflammation and pain following ultra-high molecular weight polyethylene wear debris in the lumbar spine. *Expert Rev Clin Immunol*. 2018 Aug; 14(8): 695-706. doi: 10.1080/1744666X.2018.1511428. PMID: 30099915
 160. Abdo J, Cornell DL, Mittal SK, **Agrawal DK**: Immunotherapy plus cryotherapy: Potential augmented abscopal effect for advanced cancers. *Frontiers in Oncology – Cancer Immunity and Immunotherapy* 2018 Mar 28; 8:85. doi: 10.3389/fonc.2018.00085; PMID: 29644213
 161. Ludwig PE, Thankam FG, Patil AA, Chamczuk AJ, **Agrawal DK**: Brain injury and Neural Stem Cells. *Neural Regeneration Research* 2018 Jan;13(1):7-18. doi: 10.4103/1673-5374.224361; PMID: 29451199.
 162. Karagiannis AD, Liu M, Toth PP, Zhao S, **Agrawal DK**, Libby P, Chatzizisis YS: Pleiotropic anti-atherosclerotic effects of Proprotein Convertase Subtilisin/Kexin 9 (PCSK9) inhibitors: *From molecular biology to clinical translation*. *Current Atherosclerosis Reports* 2018 Mar 10;20(4):20. doi: 10.1007/s11883-018-0718-x; PMID: 29525934
 163. Maillachruvu PF, Engel LM, Crum IT, **Agrawal DK**, Peeples ES: From cord to caudate: Characterizing umbilical cord stem cells and their paracrine interactions with the injured brain. *Pediatric Res* 2018 Jan; 83(1-2): 205-213. doi: 10.1038/pr.2017.251; PMID: 28981488.
 164. Hall S, **Agrawal DK**: Delivery of viral vectors for gene therapy in intimal hyperplasia and restenosis in atherosclerotic swine. *Drug Delivery & Translational Res* 2018 Aug; 8(4): 918-927. doi: 10.1007/s13346-017-0409-0; PMID: 28707263
 165. Ahmed A, Patil AA, **Agrawal DK**: Immunobiology of spinal cord injuries and potential therapeutic approaches. *Mol Cell Biochem* 2018 Apr; 441(1-2): 181-189. doi: 10.1007/s11010-017-3184-9; PMID: 28884424

166. **Agrawal DK**, Boosani CS: *Editorial: Gene therapy to keep the QT rhythms "On the QT"*. *J Thoracic Cardiovasc Surg.* 2017 Jul 19. pii: S0022-5223(17)31394-6. doi: 10.1016/j.jtcvs.2017.07.005; PMID:28789785
167. Rudick CP, Miyamoto T, Lang MS, **Agrawal DK**: Triggering receptor expressed on myeloid cells in the pathogenesis of periodontitis: Potential novel treatment strategies. *Expert Rev Clin Immunol* 2017 Dec; 13(12): 1189-1197. doi: 10.1080/1744666X.2017.1392855; PMID: 29027827
168. Hall SC, **Agrawal DK**: Increased TREM-2 expression on the subsets of CD11c⁺ cells in the lungs and lymph nodes during allergic airway inflammation. *Sci Reports (Nature)* 2017 Sep 19;7(1):11853. doi: 10.1038/s41598-017-12330-6; PMID: 2892848.
169. Rai V, **Agrawal DK**: The role of damage- and pathogen-associated molecular patterns in inflammation-mediated vulnerability of atherosclerotic plaques. *Can J Physiol Pharmacol* 2017 Jul 26. doi: 10.1139/cjpp-2016-0664. [Epub ahead of print]; PMID: 28746820
170. Smith TA, Kirkpatrick DR, Smith S, Smith TK, Pearson T, Kailasam A, Herrmann KZ, Schubert J, **Agrawal DK**: Radioprotective agents to prevent cellular damage due to ionizing radiation. *J. Translational Med* 2017 Nov 9;15(1):232. doi: 10.1186/s12967-017-1338-x. PMID: 29121966.
171. Rai V, Boosani CS, **Agrawal DK**: Emerging role of epigenetics and proteomics in early diagnosis of cholangiocarcinoma. *World Academy of Sciences Journal* August 2019; doi: 10.3892/wasj.2019.18.
172. Fouda MB, Thankam FG, Dilisio MF, **Agrawal DK**: Alterations in tendon microenvironment in response to mechanical load: Potential molecular targets for treatment strategies. *Am J Translational Res* 2017 Oct 15;9(10):4341-4360. eCollection 2017; PMID: 29118899.
173. Abdo J, Bertellotti CA, Cornell DL, **Agrawal DK**, and Mittal SK: Neoadjuvant therapy for esophageal adenocarcinoma in the community setting – practice and outcomes. *Frontiers in Oncology – Gastrointestinal Cancers* 2017 Jul; 7: Article 151; doi: 10.3389/fonc.2017.00151; PMID: 28770168
174. Thankam FG, Boosani CS, Dilisio MF, Gross RM, **Agrawal DK**: Genes interconnecting AMPK and TREM-1 and associated microRNAs in rotator cuff tendon injuries. *Mol Cell Biochem* – 2019 Apr;454(1-2):97-109. doi: 10.1007/s11010-018-3456-z; PMID: 30306456
175. Raney EB, Thankam FG, Dilisio MF, **Agrawal DK**: Pain and the pathogenesis of biceps tendinopathy. *Am J Translational Res* 2017 Jun 15;9(6):2668-2683. eCollection 2017; PMID: 28670360.
176. Rai V, Abdo J, Agrawal S, **Agrawal DK**: Vitamin D receptor polymorphism and cancer: an update. *Anticancer Res* 2017 Aug; 37(8): 3991-4003; PMID: 28739681
177. Ludwig PE, Patil AA, Chamczuk AJ, **Agrawal DK**: Hormonal therapy in traumatic spinal cord injury. *Am. J. Translational Res.* 2017 Sep 15;9(9):3881-3895. eCollection 2017; PMID: 28979667.
178. Garfinkel RJ, Dilisio MF, **Agrawal DK**: Vitamin D and its effect on articular cartilage and osteoarthritis. *Orthopaedic J Sports Med* 2017 Jun 20;5(6):2325967117711376. doi: 10.1177/2325967117711376. eCollection 2017 Jun; PMID: 28680892
179. Thankam FG, Boosani CS, Dilisio MF, **Agrawal DK**: MicroRNAs associated with inflammation in shoulder tendinopathy and glenohumeral arthritis. *Mol Cell Biochem* 2018 Jan; 437(1-2): 81-97. doi: 10.1007/s11010-017-3097-7; PMID: 28634854; PMCID: PMC5738295
180. Rudick CP, Cornell DL, **Agrawal DK**: Single versus combined immunoregulatory approach using PD-1 and CTLA-4 modulators in controlling sepsis. *Expert Rev Clin Immunol* 2017 Jul 25. Doi: 10.1080/1744666X.2017.1357469. [Epub ahead of print]; PMID: 28742984
181. Rai V, Abdo J, Alsuwaidan AN, Agrawal S, Sharma P, **Agrawal DK**: Cellular and molecular

- targets for the immunotherapy of hepatocellular carcinoma. *Mol Cell Biochem* 2018 Jan; 437(1-2): 13-36. doi: 10.1007/s11010-017-3092-z; PMID: 28593566
182. Rai V, **Agrawal DK**: Pathogenesis of the plaque vulnerability in diabetes mellitus. In: *Mechanisms of Vascular Defects in Diabetes Mellitus – series of Advances in Biochemistry in Health and Disease*. Eds: C.C. Kartha, S. Ramachandran and M. Radhakrishna Pillai; Springer Publisher; 2017.
 183. Almalki SG, **Agrawal DK**: ERK signaling is required for VEGF-A/VEGFR-2-induced differentiation of porcine adipose-derived mesenchymal stem cells into endothelial cells. *Stem Cell Res & Therapy* 2017 May 12;8(1):113. doi: 10.1186/s13287-017-0568-4; PMID: 28499402
 184. Rosenberg JH, Rai V, Dilisio MF, **Agrawal DK**: Damage-associated molecular patterns in the pathogenesis of osteoarthritis: potentially novel therapeutic targets. *Mol Cell Biochem* – 2017 Oct; 434(1-2): 171-179. doi: 10.1007/s11010-017-3047-4. PMID: 28574284; PMCID: PMC5671379.
 185. Rosenberg JH, Rai V, Dilisio MF, Sekundiak TD, **Agrawal DK**: Increased expression of damage-associated molecular patterns (DAMPs) in osteoarthritis of human knee joint compared to hip joint. *Mol Cell Biochem* 2017 Dec; 436(1-2): 59-69. doi: 10.1007/s11010-017-3078-x. [Epub ahead of print]; PMID: 28573383
 186. Rai V, Dilisio MF, Dietz NE, **Agrawal DK**: Recent strategies in cartilage repair: A systematic review of the scaffold development and tissue engineering. *J. Biomed. Materials Res. Part A* 2017 Apr 7. doi: 10.1002/jbm.a.36087. [Epub ahead of print] Review. PubMed PMID: 28387995.
 187. Abdo J, **Agrawal DK**, Mittal SK: “Targeted” chemotherapy for esophageal cancer. *Frontiers in Oncology* – 2017 Apr 3; 7: 63. doi: 10.3389/fonc.2017.00063. eCollection 2017; PMID: 28421164.
 188. **Agrawal DK**, Boosani CS: *Editorial: Cellular reprogramming in cardiac diseases: A feather in the hat of regenerative medicine.* *J Thoracic Cardiovasc Surg* 2017 Feb; 153(2):327-328. doi: 10.1016/j.jtcvs.2016.09.058; PMID: 27793339.
 189. Marsh A, Nguyen A, Parker T, **Agrawal DK**: Clinical use of high mobility group box 1 (HMGB1) and the receptor for advanced glycation end products (RAGE) in the prognosis and risk stratification of heart failure: A literature review. *Can J. Physiol Pharmacol.* 2017 Mar; 95(3):253-259; Doi: 10.1139/cjpp-2016-0299; PMID: 28092162
 190. **Agrawal DK**, Zucker IH: Preface to the Special issue. *Can J Physiol Pharmacol* 2017 Mar; 95(3): v. doi: 10.1139/cjpp-2017-0083; PMID: 28257247.
 191. Almalki SG, Valle YL, **Agrawal DK**: MMP-2 and MMP-14 silencing induces the differentiation of porcine adipose-derived mesenchymal stem cells to endothelial cells. *Stem Cells Translational Med* 2017 May;6(5):1385-1398; doi: 10.1002/sctm.16-0329; PMID: 28213979
 192. Hall S, **Agrawal DK**: Vitamin D and Bronchial Asthma: An overview of the last five years. *Clinical Therapeutics* 2017 Apr 24. pii: S0149-2918(17)30237-0. doi: 10.1016/j.clinthera.2017.04.002. [Epub ahead of print]; PMID: 28449868; PMCID: PMC5607643
 193. Rai V, **Agrawal DK**: Role of vitamin D in cardiovascular diseases. *Endocrinol Metab Clin North Am.* 2017 Dec;46(4):1039-1059. doi: 10.1016/j.ecl.2017.07.009. Epub 2017 Sep 29; PMID: 29080634; PMCID: PMC5675035
 194. Rai V, **Agrawal DK**: Role of risk stratification and genetics in sudden cardiac death. *Can J. Physiol Pharmacol.* 2017 Mar; 95(3):225-238. doi: 10.1139/cjpp-2016-0457; PMID: 27875062
 195. Rai V, Sharma P, Agrawal S, **Agrawal DK**: Relevance of mouse models of cardiac fibrosis and hypertrophy in cardiac research. *Mol Cell Biochemistry* 2017 Jan; 424(1-2): 123-145; doi:

- 10.1007/s11010-016-2849-0; PMID: 27766529; PMC5219849
196. Philips B, Shaw J, Turco L, McDonald D, Carey J, Balters M, Wagner M, Bertellotti R, Cornell DL, **Agrawal DK**, Asensio JA: Traumatic pulmonary pseudocyst: An underreported entity. *Injury* 2017 Feb; 48(2): 214-220; doi: 10.1016/j.injury.2016.12.006; PMID: 27986273
 197. Subramanian S, Pallati P, Sharma P, **Agrawal DK**, Nandipati K: TREM-1 associated macrophage polarization plays a significant role in inducing insulin resistance in obese population. *J Translational Med* 2017 Apr 28;15(1):85. doi: 10.1186/s12967-017-1187-7; PMID: 28454543
 198. Subramanian S, Pallati P, Sharma P, **Agrawal DK**, Nandipati K: Significant association of TREM-1 with HMGB1, TLRs and RAGE in the pathogenesis of insulin resistance in obese diabetic populations. *Am J Translational Res* 2017 Jul 15; 9(7):3224-3244; PMID:28804542
 199. Subramanian S, Pallati P, Rai V, Sharma P, **Agrawal DK**, Nandipati K: Triggering receptor expressed on myeloid cells-1 is a novel biomarker for insulin resistance in the obese population. *Obesity* 2017 Mar;25(3):527-538; doi: 10.1002/oby.21714; PMID: 28111922; PMC5323323
 200. Nandipati KC, Subramanian S, **Agrawal DK**: Protein kinases: mechanisms and downstream targets in inflammation-mediated obesity and insulin resistance. *Mol Cell Biochem* 2017 Feb;426(1-2):27-45. doi: 10.1007/s11010-016-2878-8; PMID: 27868170; PMC5291752
 201. Nguyen AH, Detty SQ, **Agrawal DK**: Clinical implications of high mobility group box 1 and the receptor for advanced glycation endproducts in cutaneous malignancy: A systematic review. *Anticancer Res.* 2017 Jan;37(1):1-7; PMID: 28011467
 202. Thankam FG, Boosani CS, Dilisio MF, Dietz NE, **Agrawal DK**: MicroRNAs associated with shoulder tendon matrisome disorganization in glenohumeral arthritis. *PLoS One* 2016 Dec 16;11(12): e0168077. doi: 10.1371/journal.pone.0168077; PMID: 27992561
 203. Parker TM, Nguyen AH, Rabang JR, Patil AA, **Agrawal DK**: The danger zone: systematic review of the role of HMGB1 danger signaling in traumatic brain injury. *Brain Injury* 2017;31(1):2-8. doi: 10.1080/02699052.2016.1217045; PMID: 27819487.
 204. Abdo J, Rai V, and **Agrawal DK**: Interplay of immunity and vitamin D: Interactions and implications with current IBD therapy. *Current Med Chem* 2017;24(9):852-867. doi: 10.2174/0929867323666161026124951; PMID: 27784213
 205. Thankam FG, Dilisio MF, Dietz NE, **Agrawal DK**: TREM-1, HMGB1 and RAGE in the shoulder tendon: Dual mechanisms for inflammation based on the coincidence of glenohumeral arthritis. *PLoS One* 2016 Oct 28;11(10): e0165492. DOI: 10.1371/journal.pone.0165492; PMID: 27792788
 206. Nguyen AH, Bhavsar SB, Riley EM, Caponetti GC, **Agrawal D**: Clinical value of high mobility group box 1 and the receptor for advanced glycation endproducts in head and neck cancer: A systematic review. *Int Archives of Otorhinolaryngology* 20: 382-389, 2016; DOI: 10.1055/s-0036-1583168; PMID: 27746844
 207. Rai V, Dietz N, Dilisio MF, Radwan MM, **Agrawal DK**: Vitamin D attenuates inflammation and fatty infiltration in the knee of hyperlipidemic swine. *Arthritis Research & Therapy - 2016 Sep 13*;18(1):203. DOI: 10.1186/s13075-016-1099-6; PMID: 27624724.
 208. Huerter CJ, Vaudreuil AM, **Agrawal DK**, Nguyen AH: Has vitamin D had its "Time in the Sun" for melanoma? *J Clin Aesthetic Dermatology* 2016; 9 (12): 11-12; PMID: 28210393
 209. Abdo J, **Agrawal DK**, Mittal SK: Basis for molecular diagnostic and immunotherapy for esophageal cancer. *Expert Rev Anticancer Ther* 2017 Jan; 17(1): 33-45. DOI: 10.1080/14737140.2017.1260449; PMID: 27838937; PMC5542819
 210. Agarwal S, **Agrawal DK**: Kawasaki disease: Etiopathogenesis and novel treatment strategies. *Expert Rev Clin Immunol* 2017 Mar;13(3):247-258. doi: 10.1080/1744666X.2017.1232165; PMID:

27590181; PMC5542821

211. Almalki SG and **Agrawal DK**: Effects of matrix metalloproteinases on the fate of mesenchymal stem cells. *Stem Cell Res & Ther* – 2016 Sep 9;7(1):129; DOI: 10.1186/s13287-016-0393-1; PMID: 27612636.
212. Agarwal S, Kovilam O, **Agrawal DK**: Vitamin D and its impact on maternal-fetal outcomes in pregnancy: A critical review. *Critical Reviews in Food Science and Nutrition* – August 2016 [Epub ahead of print]; DOI: 10.1080/10408398.2016.1220915; PMID: 27558700
213. Valle YL, Almalki SG, **Agrawal DK**: Vitamin D machinery and metabolism in porcine adipose-derived mesenchymal stem cells. *Stem Cell Res & Ther* 2016 Aug 17; 7(1): 118. PMID: 27530414 DOI: 10.1186/s13287-016-0382-4
214. Nguyen AH, Lim VM, Fleegel JP, Hunter WJ, **Agrawal DK**: Cutaneous expression of TREM, vitamin D receptor and HMGB1 in vitamin D deficiency. *Int J Clin Exp Pathol* 2016; 9(8): 8506-8512; ISSN: 1936-2625; PMID: 32699567
215. Nguyen AH, Bhavsar SB, Riley EM, Caponetti GC, **Agrawal DK**: Association of high mobility group box-1 and receptor for advanced glycation endproducts with clinicopathological features of hematological malignancies: A systematic review. *Contemporary Oncol (Pozn)* 2016;20(6):425-429. doi: 10.5114/wo.2016.65600; PMID: 28239277
216. Kirkpatrick DR, McEntire DM, Dueck NP, Kerfeld MJ, Hamsch ZJ, Smith TA, Nelson TJ, Reisbig MD, and **Agrawal DK**: Transmission pathways and mediators as the basis for clinical pharmacology of pain. *Expert Rev Clin Pharmacol* 2016 Jul 4: 1-25. [Epub ahead of print]; PMID: 27322358; PMC5215101
217. Thankam FG, Dilisio MF, Dougherty KA, Dietz NE, **Agrawal DK**: Triggering receptor expressed on myeloid cells and 5'-adenosine monophosphate activated protein kinase in the inflammatory response: A potential therapeutic target. *Expert Rev Clin Immunol* 2016 Nov;12(11):1239-1249; PMID: 27266327; PMC5158012
218. Chen S, Swier VJ, Boosani CS, Radwan MM, **Agrawal DK**: Vitamin D deficiency accelerates the progression of swine coronary artery disease. *Arteriosclerosis Thromb Vasc Biol* 2016 Jun 2. pii: ATVBAHA.116.307586. [Epub ahead of print]; PMID: 27255724; PMC4965317
219. Gupta GK, Agrawal T, Rai V, Del Core MG, Hunter WJ, and **Agrawal DK**: Vitamin D supplementation reduces restenosis following coronary intervention in hypercholesterolemic swine. *PLoS One* 2016 Jun 6;11(6): e0156857. doi: 10.1371/journal.pone.0156857. eCollection 2016; PMID: 27271180
220. Rao VH, Rai V, Stoupa S, Subramanian S, **Agrawal DK**: Data on TREM-1 activation in destabilizing carotid plaques. *Data Brief*. 2016 May 27; 8:230-4. doi: 10.1016/j.dib.2016.05.047. eCollection 2016 Sep.; PMID:27331093
221. McEntire DM, Kirkpatrick DR, Dueck NP, Kerfeld MJ, Smith TA, Nelson TJ, Reisbig MD, and **Agrawal DK**: Pain transduction: A pharmacologic perspective. *Expert Rev Clin Pharmacol* 2016 May 23: 1-12. [Epub ahead of print]; PMID: 27137678; PMC4975548
222. Sur S, **Agrawal DK**: Phosphatases and kinases regulating CDC25 activity in the cell cycle: Clinical implications and inhibitors. *Mol Cell Biochem* 416(1-2): 33-46, 2016; Epub 2016 Apr 2; PMID: 27038604; PMC4862931; NIHMS774830
223. Dougherty KA, Dilisio MF, **Agrawal DK**: Vitamin D and the immunomodulation of rotator cuff injury. *J Inflammation Res* 9: 123-131, 2016; PMID: 27366101
224. Thankam FG, Dilisio MF, **Agrawal DK**: Immunobiological factors aggravating the fatty infiltration on tendons and muscles in rotator cuff lesions. *Mol Cell Biochem*. 2016 Jun;417(1-2):17-33. doi: 10.1007/s11010-016-2710-5. Epub 2016 May 9; PMID: 27160936
225. Quirk SK, Rainwater E, Shure AK, **Agrawal DK**: Vitamin D in atopic dermatitis, chronic urticaria and allergic contact dermatitis. *Expert Rev Clin Immunol* 2016 Mar 25 [Epub ahead

- of print]; DOI: 10.1586/1744666X.2016.1171143; PMID: 27014952; PMC4985525
226. Boosani CS, **Agrawal DK**: Epigenetic regulation of innate immunity by microRNAs. *Antibodies* 2016; 5; DOI: 10.3390/antib5020008
 227. Kokubun K, Pankajakshan D, Kim M-J, **Agrawal DK**: Differentiation of porcine mesenchymal stem cells into epithelial cells as a potential therapeutic application to facilitate epithelial regeneration. *Journal of Tissue Engineering and Regenerative Medicine* 2016 Feb; 10(2): E73-83; PMID 23696537
 228. Almalki S, **Agrawal DK**: Key transcription factors in the differentiation of mesenchymal stem cells. *Differentiation* 2016 Mar 21. pii: S0301-4681(15)30098-0. doi:10.1016/j.diff. 2016.02.005. [Epub ahead of print]; PMID: 27012163; PMC5010472
 229. Agarwal S, Kovilam O, Zach TL, **Agrawal DK**: Immunopathogenesis and therapeutic approaches in pediatric celiac disease. *Expert Rev Clin Immunol* 2016 Mar 21. [Epub ahead of print]; PMID: 26999328; PMC4975578
 230. Rai V, Rao VH, Shao Z, **Agrawal DK**: Dendritic cells expressing triggering receptor expressed on myeloid cells-1 correlate with plaque stability in symptomatic and asymptomatic patients with carotid stenosis. *PLoS One* 2016 May 5;11(5): e0154802. doi: 10.1371/journal.pone.0154802; PMID: 27148736.
 231. Kerfeld MJ, Hamsch ZJ, McEntire DM, Kirkpatrick DR, Cai J, Youngblood CF, **Agrawal DK**, Reisbig MD: Physiologic advantages of peripheral nerve blockade translate to decreased length of stay and improved patient satisfaction. *Anesthesiology Open J* 2016; DOI: 10.17140/AOJ-1-103a.
 232. Lee DE, Ayoub N, **Agrawal DK**: Mesenchymal stem cells and cutaneous wound healing: novel methods to increase cell delivery and therapeutic efficacy. *Stem Cell Res Therapy* 2016 Mar 9; 7(1):37. Doi: 10.1186/s13287-016-0303-6. PMID: 26960535
 233. Pelham C, Drews EM, **Agrawal DK**: Vitamin D controls resistance artery function through regulation of perivascular adipose tissue hypoxia and inflammation. *J Mol Cell Cardiol* 2016 Jun 30. Pii: S0022-2828(16)30219-X. doi: 10.1016/j.yjmcc.2016.06.067. [Epub ahead of print]; PMID: 27374117; PMC5026596
 234. Rao VH, Rai V, Stoupa S, Subramanian S, **Agrawal DK**: Tumor necrosis factor-alpha regulates triggering receptor expressed on myeloid cells-1-dependent matrix metalloproteinases in the carotid plaques of symptomatic patients with carotid stenosis. *Atherosclerosis* 2016 Mar 19; 248: 160-169; DOI: 10.1016/j.atherosclerosis.2016.03.021; PMID: 27017522; PMC4836960; NIHMS773143
 235. Rai V, Dietz NE and **Agrawal DK**: Immunological basis for treatment of graft versus host disease after liver transplant. *Expert Rev Clin Immunol* - 12(5): 583-593, 2016; PMID: 26795873; PMC4955803; NIHMS798017
 236. Hall SC and **Agrawal DK**: Toll-like receptors, triggering receptor expressed on myeloid cells family members and receptor for advanced glycation end products in allergic airway inflammation. *Expert Rev Respir Med* 2016 Feb; 10(2):171-84. doi:10.1586/17476348.2016.1133303. Epub 2016 Jan 20; PMID: 26678062
 237. Fischer KD, Hall SC, **Agrawal DK**: Vitamin D supplementation reduces induction of epithelial-mesenchymal transition in allergen-sensitized and challenged mice. *PLoS One* 2016 Feb 12;11(2): e0149180. doi: 10.1371/journal.pone.0149180. eCollection 2016; PMID: 26872336.
 238. Sur S, Swier VJ, Radwan MM, **Agrawal DK**: Increased expression of phosphorylated polo-like kinase 1 and histone in bypass vein graft and coronary arteries following angioplasty. *PLoS One* 2016 Jan 28; 11(1):e0147937. doi: 10.1371/journal.pone.0147937. eCollection 2016; PMID: 26820885
 239. Hall SC, Fischer KD, **Agrawal DK**: The impact of vitamin D on asthmatic human airway

- smooth muscle. *Expert Rev Respir Med* 2016 Feb; 10(2):127-35. doi: 10.1586/17476348.2016.1128326. Epub 2015 Dec 28; PMID: 26634624.
240. Chen S, Villalta A, **Agrawal DK**: FOXO1 mediates vitamin D deficiency-induced insulin resistance in skeletal muscle. *J Bone Mineral Res* 2015 Oct 13. doi: 10.1002/jbmr.2729. [Epub ahead of print]; PMID: 26462119.
241. Dale MA, Sue MK, Zhao S, Meisinger T, Gu L, Swier V, **Agrawal DK**, Greiner T, Baxter BT, Xiong W: Background differences in baseline and stimulated MMP levels influence abdominal aortic aneurysm susceptibility. *Atherosclerosis* 2015 Oct 8; 243(2): 621-629. doi: 10.1016/j.atherosclerosis. 2015.10.006. [Epub ahead of print]; PMID: 26546710
242. Swier V, Tang L, Krueger KD, Radwan MM, Del Core MG, **Agrawal DK**: Coronary injury score correlates with proliferating cells and alpha-smooth muscle actin expression in stented porcine coronary arteries. *PLoS One* 2015 Sep 18; 10(9): e0138539. doi: 10.1371/journal.pone.0138539. eCollection 2015; PMID: 26382957
243. Larson SP, Kovilam O, **Agrawal DK**: Immunological basis in the pathogenesis of intrahepatic cholestasis of pregnancy. *Expert Rev Clin Immunol* 2016 Jan; 12(1):39-48. doi: 10.1586/1744666X.2016.1101344. Epub 2015 Oct 15; PMID: 26469633.
244. Yin K, You Y, Swier V, Tang L, Radwan MM, Pandya AN, **Agrawal DK**: Vitamin D protects against atherosclerosis via regulation of cholesterol efflux and macrophage polarization in hypercholesterolemic swine. *Arteriosclerosis, Thrombosis and Vascular Biol* 2015 Nov; 35(11):2432-42. doi: 10.1161/ATVBAHA.115.306132. Epub 2015 Sep 17; PMID: 2638211871; PMCID: PMC46187
245. Chen Songcang, Sun Yingsian, **Agrawal DK**: Vitamin D deficiency and essential hypertension. *J Am Soc Hypertension* 2015 Nov;9(11):885-901. doi: 10.1016/j.jash.2015.08.009. Epub 2015 Aug 21; PMID: 26419755
246. Rao VH, Rai V, Stoupa S, **Agrawal DK**: Blockade of Ets-1 attenuates epidermal growth factor-dependent collagen loss in human carotid plaque smooth muscle cells. *Am J Physiol – Heart & Circ Physiol* 2015 Sep 15; 309(6):H1075-86. doi: 10.1152/ajpheart.00378.2015. Epub 2015 Aug 7. PMID: 26254334.
247. Hamsch ZJ, Kerfeld MJ, Kirkpatrick DR, McEntire DM, Reisbig MD, Youngblood CF, **Agrawal DK**: Arterial catheterization and infection: Toll-like receptors in defense against micro-organisms and therapeutic implications. *Clin Translational Sci* 2015 Dec; 8(6):857-70. doi: 10.1111/cts.12320. Epub 2015 Aug 14; PMID: 26271949.
248. Quirk SK, Shure AK, **Agrawal DK**: Immune-mediated adverse effects of anti-CTLA-4 antibody therapy in metastatic melanoma. *Translational Res.* 2015 Nov; 166(5):412-24. doi: 10.1016/j.trsl.2015.06.005. Epub 2015 Jun 11; PMID: 26118951.
249. Swier V, Tang L, Radwan MM, Hunter WJ, **Agrawal DK**: The role of high cholesterol-high fructose diet on coronary arteriosclerosis. *Histology & Histopathology* 2016 Feb; 31(2):167-76. doi: 10.14670/HH-11-652. Epub 2015 Aug 11; PMID: 26260796
250. Nguyen AH, Berim IG, **Agrawal DK**: Chronic inflammation and cancer: Emerging roles of triggering receptors expressed on myeloid cells. *Expert Rev Clin Immunol* 2015; 11(7):849-57. doi: 10.1586/1744666X.2015.1043893. Epub 2015 May 8; PMID: 25954917.
251. Nguyen AH, Koenck C, Quirk SK, Lim VM, Mitkov MV, Trowbridge RM, Hunter WJ, **Agrawal DK**: Triggering receptors expressed on myeloid cells in cutaneous melanoma. *Clin Translational Sci* 2015 Oct;8(5): 441-4. doi: 10.1111/cts.12308. Epub 2015 Jul 16; PMID: 26184544.
252. Boosani CS, Dhar K, and **Agrawal DK**: Downregulation of miRNA-1264 contributes to DNMT1-mediated silencing of SOCS3. *Mol Biol Reports* 2015 Sep; 42(9):1365-76. doi: 10.1007/s11033-015-3882-x; PMID: 26047583.

253. Kapoor H, Lohani KR, Lee TH, **Agrawal DK**, Mittal SK: Animal models of Barrett's Esophagus and Esophageal Adenocarcinoma- Past, Present and Future. *Clin Translational Sci*. 2015 Dec; 8(6):841-7. doi: 10.1111/cts.12304. Epub 2015 Jul 27; PMID: 26211420
254. Ikhapoh IA, Pelham C, **Agrawal DK**: Atherogenic cytokines regulate VEGF-A-induced differentiation of bone marrow-derived mesenchymal stem cells into endothelial cells. *Stem Cells Int*. 2015: 498328. doi: 10.1155/2015/498328. Epub 2015 May 28 PMID: 26106428
255. Smith TA, Kirkpatrick, DR, Kovilam O, **Agrawal DK**: Vitamin D and immunomodulation in preeclampsia. *Expert Rev Clin Immunol* 2015; 11(9):1055-63. doi: 10.1586/1744666X.2015.1056780. Epub 2015 Jun 22; PMID: 26098965; PMCID: PMC4829935
256. Nguyen AH, Miller EJ, Wichman CS, Berim IG, **Agrawal DK**: Diagnostic value of tumor antigens in malignant pleural effusion: A meta-analysis. *Translational Res*. 2015 Nov; 166(5):432-9. doi: 10.1016/j.trsl.2015.04.006. Epub 2015 Apr 16; PMID: 25953662
257. Baskar K, Sur S, Selvaraj V, **Agrawal DK**: Functional constituents of a local serotonergic system intrinsic to human coronary artery smooth muscle cells. *Mol Biol Reports* 2015 Aug; 42(8):1295-307. doi: 10.1007/s11033-015-3874-x. Epub 2015 Apr 11; PMID: 25861735
258. Kirkpatrick DR, McEntire DM, Hamsch ZJ, Kerfeld MJ, Smith TA, Reisbig MD, Youngblood CF, **Agrawal DK**: Therapeutic basis of clinical pain modulation. *Clin Translational Sci* 2015 Dec; 8(6):848-56. doi: 10.1111/cts.12282. Epub 2015 May 11; PMID: 25962969
259. Ikhapoh IA, Pelham CJ and **Agrawal DK**: Sry-type HMG box 18 contributes to the differentiation of bone marrow-derived mesenchymal stem cells to endothelial cells. *Differentiation* 2015 Mar-Apr; 89(3-4):87-96. doi: 10.1016/j.diff.2015.03.003. Epub 2015 Apr 23; PMID: 25913202; PMCID: PMC4479266
260. Kapoor H, **Agrawal DK**, Mittal SK: Barrett's esophagus: recent insights into pathogenesis and cellular ontogeny. *Translational Res*. 2015 Jul; 166(1):28-40. doi: 10.1016/j.trsl.2015.01.009. Epub 2015 Jan 31; PMID: 25701368
261. Chen S and **Agrawal DK**: Dysregulation of T-cell subset in the pathogenesis of hypertension. *Current Hypertension Reports* 2015 Feb; 17(2): 521. doi: 10.1007/s11906-014-0521-1; PMID: 25633669
262. Ikhapoh IA, Pelham C, **Agrawal DK**: Synergistic effect of angiotensin II on VEGF-AA-mediated differentiation of bone marrow-derived mesenchymal stem cells into endothelial cells. *Stem Cell Res Ther* 2015 Jan 6; 6:4. doi: 10.1186/scrt538; PMID: 25563650; PMCID: PMC4417220
263. Boosani CS and **Agrawal DK**: Methylation and microRNA-mediated epigenetic regulation of SOCS3. *Mol Biol Reports* 2015 Apr; 42(4):853-72. doi: 10.1007/s11033-015-3860-3; PMID: 25682267.
264. Gaurav R, Bewtra AK, **Agrawal DK**: CLC3 channels in the activation and migration of human blood eosinophils in allergic asthma. *Am J Respir Cell Mol Biol* 2015 Aug; 53(2):235-45. doi: 10.1165/rcmb.2014-0300OC; PMID: 25514499.
265. Shao Z, Gaurav R, and **Agrawal DK**: Intermediate conductance calcium-activated potassium channels KCa3.1 and chloride channel modulate chemokine-induced migration of dendritic cells. *Translational Res*. 2015 Jul; 166(1):89-102. doi: 10.1016/j.trsl.2014.11.010. Epub 2014 Dec 20; PMID: 25583444
266. Yin K and **Agrawal DK**: Gene therapy for in-stent restenosis: Targets and delivery system. *Current Research Cardiology* 1(2): 93-101, 2014.
267. Thompson DB, Siref LE, Feloney MO, Hauke RJ, **Agrawal DK**: Immunological basis in the pathogenesis and treatment of bladder cancer. *Expert Rev Clin Immunol* 2015 Feb; 11(2): 265-279. doi: 10.1586/1744666X.2015.983082. Epub 2014 Nov 13; PMID: 25391391

268. Kailasam A, Mittal SK, **Agrawal DK**: Epigenetics in the pathogenesis of esophageal adenocarcinoma. *Clin & Translational Sci* 2015 Aug; 8(4):394-402. doi: 10.1111/cts.12242. Epub 2014 Nov 12; PMID: 25388215
269. Darling VR, Hauke RJ, Tarantolo S, **Agrawal DK**: Immunological effects and therapeutic role of C5a in cancer. *Expert Rev Clin Immunol* 2015 Feb;11(2): 255-263. doi: 10.1586/1744666X.2015.983081. Epub 2014 Nov 12; PMID: 25387724.
270. McEntire DM, Kirkpatrick DR, Kerfeld MJ, Hamsch ZJ, Reisbig MD, **Agrawal DK**, Youngblood CF: Effect of sedative-hypnotics, anesthetics, and analgesics on sleep architecture in obstructive sleep apnea. *Expert Rev Clin Pharmacol* 7(6): 787-806, 2014. PMID 25318836
271. Nguyen AH, Berim IG, **Agrawal DK**: Cellular and molecular immunology of lung cancer: Therapeutic implications. *Expert Rev Clin Immunol* 2014 Dec; 10(12): 1711-1730. doi: 10.1586/1744666X.2014.975692. Epub 2014 Oct 28; PMID: 25351434
272. Yin K and **Agrawal DK**: High-density lipoprotein: a novel target for anti-restenosis therapy. *Clin & Translational Sci* 2014 Jul 15. doi: 10.1111/cts.12186. [Epub ahead of print]; PMID: 25043950
273. Pandya AN, Fletcher JT, Villa EM, and **Agrawal DK**: Silver-Mediated Synthesis of Indolizines via Oxidative C-H functionalization and 5- *endo-dig* cyclization. *Tetrahedron Letters* 55(50): 6922-6924, 2014; PMID: 25506096
274. Pelham CJ, Pandya AN, **Agrawal DK**: Triggering receptor expressed on myeloid cells (TREM) receptor family modulators: a patent review. *Expert Opinion on Therapeutic Patents –* 2014 Dec; 24(12): 1383-1395. doi: 10.1517/13543776.2014.977865. Epub 2014 Nov 1; PMID: 25363248.
275. Pankajakshan D and **Agrawal DK**: Mesenchymal stem cell paracrine factors in vascular repair and regeneration. *J Biomedical Technology and Research* 1(1): 6000103, 2014: open access article; PMID: 28890954; NIHMS898750
276. Fischer KD and **Agrawal DK**: Vitamin D regulating TGF- β -induced epithelial mesenchymal transition. *Respir Res* 2014 Nov 21; 15(1): 146. [Epub ahead of print]; PMID: 25413472
277. Gaurav R, Bewtra AK and **Agrawal DK**: Novel CLC3 transcript variants in blood eosinophils and increased CLC3 expression in nasal lavage and blood eosinophils of asthmatics. *Immunity, Inflammation & Disease* 2014 Dec; 2(4): 205-213. doi: 10.1002/iid3.36. Epub 2014 Dec 4; PMID: 25866628
278. Quirk S and **Agrawal DK**: Immunobiology of IL-37: mechanism of action and clinical perspectives. *Expert Rev Clin Immunol* 2014 Dec; 10(12): 1703-1709. doi: 10.1586/1744666X.2014.971014. Epub 2014 Oct 18; PMID: 25327443.
279. Lee DE, Trowbridge RM, Ayoub NT, and **Agrawal DK**: High-mobility group box protein-1, matrix metalloproteinases and vitamin D in keloids and hypertrophic scars. *Plastic & Reconstructive Surgery-Global Open* 2015 Jul 8;3(6): e425. doi: 10.1097/GOX.0000000000000391. eCollection 2015 Jun; PMID: 26180726.
280. Hall S and **Agrawal DK**: Key Mediators in the Immunopathogenesis of Allergic Asthma. *Int. Immunopharmacol* 2014 Jun 13. pii: S1567-5769(14)00216-1. doi: 10.1016/j.intimp.2014.05.034; PMID: 24933589
281. Yin K and **Agrawal DK**: Vitamin D and inflammatory diseases. *J Inflammation Res* 7: 69-87, 2014. doi: 10.2147/JIR.S63898. eCollection 2014; PMID: 24971027
282. Pandya AN and **Agrawal DK**: A concise synthesis of highly substituted imidazoles via copper-mediated oxidative C-H functionalization. *Tetrahedron Letters* 55 (10): 1835-1838, 2014. PMID: 24882889

283. Sur S and **Agrawal DK**: Transactivation of EGFR by G-protein coupled receptor in the pathophysiology of intimal hyperplasia. *Curr. Vasc. Pharmacol* 12(2): 190-201, 2014; [Epub ahead of print 2014 Feb 26]. PMID: 24568153
284. Aggarwal A and **Agrawal DK**: Importins and exportins regulating allergic immune responses. *Mediators of Inflammation* Volume 2014; 476357, Article ID 476357, 14 pages; Epub 2014 Mar 9; <http://dx.doi.org/10.1155/2014/476357>; PMID: 24733961
285. Rao VH, Kansal V, Stoupa S, **Agrawal DK**: MMP-1 and MMP-9 Regulate Epidermal Growth Factor-dependent Collagen Loss in Human Carotid Plaque Smooth Muscle Cells. *Physiol. Reports (Heart & Circulatory Physiology)* 2(2): 2014, e00224, doi: 10.1002/phy2.224; eCollection 2014 Feb 1; PMID: 24744893
286. Sur S, Sugimoto J and **Agrawal DK**: Coronary artery bypass graft: Why is the saphenous vein prone to intimal hyperplasia? *Can. J. Physiol. Pharmacol.* 2014; 92(7): 531-45. [Epub ahead of print]; PMID: 24933515
287. Fischer KD and **Agrawal DK**: Hematopoietic stem and progenitor cells in inflammation and allergy. *Front Immunol – Inflammation* 4: Article 428, eCollection 2013; pp 1-9; PMID: 24363657
288. Pelham CJ and **Agrawal DK**: Emerging roles for triggering receptor expressed on myeloid cells (TREM) receptor family signaling in inflammatory diseases. *Expert Reviews of Clinical Immunology* 10(2): 243-256, 2014; PMID: 24325404
289. Trowbridge RM, Mitkov MV, Hunter WJ, **Agrawal DK**: Vitamin D receptor and CD86 expression in the skin of vitamin D-deficient swine. *Experimental & Molecular Pathology –* 96(1): 42-47, 2014. PMID: 24239751
290. Trowbridge RM, Mitkov MV, Pittelkow MR, and **Agrawal DK**: Immunomodulation of malignant melanoma by contact sensitizing agents. *Expert Reviews of Clinical Immunology* 10(1): 63-76, 2014; Epub 2013 Nov 22; PMID: 24308833
291. Guarav R and **Agrawal DK**: Clinical view on the importance of dendritic cells in asthma. *Expert Reviews of Clinical Immunology* 9(10): 899-919, 2013; PMID 24128155
292. Radwan MM, Radwan BM, Nandipati KC, Hunter WJ, **Agrawal DK**: Immunological and molecular basis of non-alcoholic steatohepatitis and non-alcoholic fatty liver disease. *Expert Reviews of Clinical Immunology* 9(8): 727-738, 2013; PMID 23971751
293. Trowbridge R, Mittal SK, **Agrawal DK**: Vitamin D and the epidemiology of upper gastrointestinal cancers: A critical analysis of the current evidence. *Cancer Epidemiology Biomarkers and Prevention* 22(6): 1007-1014, 2013; Epub 2013 Apr 5. [Epub ahead of print], PMID: 23563888.
294. Trowbridge R, Kizer RT, Mittal SK, and **Agrawal DK**: 1,25-dihydroxyvitamin D in the pathogenesis of Barrett's esophagus and esophageal adenocarcinoma. *Expert Reviews of Clinical Immunology* 9(6): 517-533, 2013; PMID: 23730883
295. Pankajakshan D and **Agrawal DK**: Clinical and Translational Challenges in Gene Therapy of Cardiovascular Diseases; In: *Gene Therapy- Tools and Potential Applications*, Ed.: Francisco Martin Molina; ISBN 978-953-51-1014-9, Publisher - InTech - open science | open minds; Chapter 27, pp. 651-684; 2013.
296. Boosani CS and **Agrawal DK**: PTEN (Phosphatase and tensin homolog) modulators: a patent review. *Expert Opinion on Therapeutic Patents* 23(5): 569-580, 2013; 2013 Feb 5. [Epub ahead of print]; PMID 23379765.
297. Sur S and **Agrawal DK**: PTEN and Cell Signaling in Health and Disease; In: *PTEN Structure, Mechanism-of-action, Role in Cell Signaling and Regulation*; Ed.: Ke Xu; Chapter 1 pp. 1-50; Nova Science Publishers, April 2013.
298. Agrawal Tanupriya, Gupta GK, **Agrawal DK**: Vitamin D Supplementation Reduces Airway

- Hyperresponsiveness and Allergic Airway Inflammation in a Murine Model. *Clinical & Experimental Allergy* 43(6): 672-683, 2013; PMID: 23711130
299. Dhar K, Rakesh K, Pankajakshan D, **Agrawal DK**: SOCS3 Promotor Hypermethylation and STAT3-NF-kB Interaction Downregulate SOCS3 Expression in Human Coronary Artery Smooth Muscle Cells. *Am. J. Physiol (Heart & Circulatory Physiology)* 304(6): H776-H785, 2013; [Epub 2013 Jan 18 ahead of print]; PMID 23335796
300. Jia G, Stormont R, Gangahar DM, **Agrawal DK**: Role of matrix Gla protein in Angiotensin II-induced exacerbation of Vascular Stiffness. *Am. J. Physiol (Heart & Circulatory)* - 303(5): 523-532, 2012; [Epub 2013 Jul 13 ahead of print]; PMID: 22796540
301. Trowbridge R, Mittal SK, Sharma P, Hunter WJ III, **Agrawal DK**: Vitamin D receptor expression in the mucosal tissue at the gastroesophageal junction *Exp. Mol. Pathol.* 93(2):246-249, October 2012; Epub 2012 Jun 1; PMID: 22664272
302. Makinde TO, Steininger R, **Agrawal DK**: NPY and NPY receptors in airway structural and inflammatory cells in allergic asthma. *Exp. Mol. Pathol.* 94: 45-50, 2013; PMID: 22705097.
303. Trowbridge R, Sharma P, Hunter WJ III, **Agrawal DK**: Vitamin D receptor expression and neoadjuvant therapy in esophageal adenocarcinoma. *Exp. Mol. Pathol.* 93: 147-153, 2012; PMID: 22546272
304. Gupta GK, Agrawal T, Del Core MG, Hunter WJ III, **Agrawal DK**: Decreased expression of vitamin D receptors in smooth muscle cells of porcine coronary arteries following angioplasty: Potential implication in coronary intimal hyperplasia. *PLoS One* 2012; 7(8): e42789; Epub 2012 Aug 6; PMID 22880111; PMCID: PMC3412822
305. Agrawal T, Gupta GK, **Agrawal DK**: Vitamin D deficiency decreases the expression of VDR and prohibitin in the lungs of mice with allergic airway inflammation. *Exp. Mol. Pathol.* 93: 74-81, 2012; PMID: 22537547; PMCID: PMC3410542
306. Gupta GK, Agrawal T, Del Core MG, Mohiuddin SM, **Agrawal DK**: Vitamin D deficiency induces cardiac hypertrophy and inflammation in epicardial adipose tissue in hypercholesterolemic swine. *Exp. Mol. Pathol.* 93: 82-90, 2012; PMID: 22537546; PMCID: PMC3411274
307. Pankajakshan D, Kansal V, **Agrawal DK**: *In vitro* differentiation of bone marrow-derived porcine mesenchymal stem cells into endothelial cells. *The Journal of Tissue Engineering and Regenerative Medicine* 7: 911-20, 2013; doi: 10.1002/term.1483. Epub 2012 May 18; PMID:22605545; PMCID: PMC4089894
308. Agrawal T, Gupta GK, **Agrawal DK**: Calcitriol decreases expression of importin $\alpha 3$ and attenuates RelA translocation in human bronchial smooth muscle cells. *J. Clin Immunology* 32(5): 1093-1103, October 2012 Apr 25. [Epub ahead of print]; PMID: 22526597; PMCID: PMC3444658
309. Gupta GK, Dhar K, Del Core MG, Hatzoudis GI, **Agrawal DK**: Suppressor of cytokine signaling-3 and neointimal hyperplasia in porcine coronary arteries following coronary intervention. *Exp. Mol. Pathol* 91(1): 346-352, 2011 [Apr 22 Epub ahead of print]; PMID: 21540027; (PMCID: PMC3139760)
310. Aggarwal H, Aggarwal A, **Agrawal DK**: Epidermal growth factor increases leukemia/lymphoma related factor (LRF/Pokemon) in human prostate cancer cells. *Exp. Mol. Pathol.* 91(2): 496-501, 2011; [May 27, 2011 Epub ahead of print] PMID: 21640721
311. Shao Z, Makinde TO, **Agrawal DK**: Calcium-Activated Potassium Channel KCa3.1 in Lung Dendritic Cell Migration. *Am. J. Respir. Cell Mol. Biol.* 45:962-968, 2011 [Apr 14, 2011 Epub ahead of print] PMID: 21493782
312. Pankajakshan D, Jia G, Pipinos I, Tyndall SH, **Agrawal DK**: Neuropeptide Y receptor

- expression in carotid plaques of symptomatic and asymptomatic patients: Effect of inflammatory cytokines. *Exp. Mol. Pathol.* 90:280-286, 2011 [Epub ahead of print 2011 Feb 23]; PMID: 21352822; PMCID: PMC3091977
313. Pankajakshan D, Makinde LO, Gupta GK, Del Core MG, Hatzoudis G, Pipinos I, **Agrawal DK**: Successful transfection of genes using AAV-2/9 vector in swine coronary and peripheral arteries. *J Surgical Res.* 175: 169-175, 2012 [Mar 21, 2011 Epub ahead of print]; PMID: 21529824; PMCID: PMC3150285
 314. Aggarwal H, Aggarwal A, Hunter WJ, Yohannes P, Khan AU, **Agrawal DK**: Expression of leukemia/lymphoma related factor (LRF/Pokemon) in human benign prostate hyperplasia and prostate cancer. *Exp. Mol. Pathol.* 90: 226-230, 2011. PMID: 21251909
 315. Jia G, Aggarwal A, Tyndall S, **Agrawal DK**: Tumor necrosis factor- α regulates p27 kip expression and apoptosis in smooth muscle cells of human carotid plaques via forkhead transcription factor O1. *Exp. Mol. Pathol.* 90: 1-8, 2011 [Epub ahead of print 2010 Nov 11]; PMID: 21075101.
 316. Makinde TO and **Agrawal DK**: Increased expression of angiopoietins and Tie2 in the lungs of chronic asthmatic mice. *Am J Respiratory Cell and Molecular Biology* 44(3): 384-93, 2011 [Epub ahead of print 12 May 2010]. PMID: 20463289
 317. Gupta G and **Agrawal DK**: CpG oligodeoxynucleotides as TLR9 agonists: Therapeutic applications in asthma/allergy. *BioDrugs* 24(4): 225-235, 2010. PMID: 20623989
 318. Aggarwal A, Hunter WJ, Aggarwal H, Silva E, Davey MS, Murphy RF, **Agrawal DK**: Expression of leukemia/lymphoma-related Factor (LRF) in breast carcinoma and other cancers. *Exp. Mol. Pathol.* 89(2): 140-148, 2010; [Epub ahead of print 2010 May 21]; PMID: 20471975
 319. Jia G, Mitra AK, Cheng G, Gangahar DM and **Agrawal DK**: Sustained PI3K-Akt/PKB phosphorylation potentiates proliferation of human saphenous vein smooth muscle cells. *Exp. Mol. Pathol.* 89(1): 20-26, 2010; PMID 20471974
 320. Pankajakshan D and **Agrawal DK**: Scaffolds in Tissue Engineering of Blood Vessels. *Can. J. Physiol. Pharmacol.* 88 (9): 855-873, 2010; PMID: 20921972
 321. Shao Z, Makinde, TO, McGee HS, Wang X, **Agrawal DK**: Fms-like tyrosine kinase 3 ligand regulates migratory pattern and antigen uptake of lung dendritic cell subsets in a murine model of allergic airway inflammation. *J. Immunology* 183(11): 7531-7538, 2009; PMID: 19917684
 322. Makinde TO, Bewtra AK, **Agrawal DK**: Immunomodulatory role of *Bacillus Calmette- Guerin* in the prevention and therapy of allergy and asthma. In: Allergy Frontiers: Therapy and Preventions; Eds: R Pawankar, S Holgate, Lanny J. Rosenwasser; Springer-Verlag Tokyo, Inc., Japan; 2010; Chapter 43, pp. 713-726.
 323. McGee HS, Edwan JH, **Agrawal DK**: Flt3-L increases CD4+CD25+Foxp3+ICOS+ cells in the lungs of cockroach-sensitized and challenged mice. *Am J Respiratory Cell and Molecular Biology* 42: 331-340, 2010; [Epub ahead of print May 15, 2009]. PMID:19448155
 324. McGee HS, Yagita H, Shao Z, **Agrawal DK**: PD-1 antibody blocks therapeutic effects of T-regulatory cells in cockroach antigen-induced allergic asthma. *Am J Respiratory Cell and Molecular Biology* 43: 432-442, 2010; [November 9, 2009 Epub ahead of print]; PMID: 19901343
 325. McGee HS, Stallworth AL, Agrawal T, Shao Z, Lorence L, **Agrawal DK**: Flt3-Ligand decreases T Helper Type 17 Cells and Suppressors of Cytokine Signaling proteins in the lung of house dust mite-sensitized and challenged mice. *Am J Respiratory Cell and Molecular Biology* 43: 520-529, 2010 [2009 November 20- Epub ahead of print]. PMID: 19933379
 326. **Agrawal DK**, Shao Z: Pathogenesis of Allergic airway inflammation. *Current Allergy Asthma*

- Reports* 10: 39-48, 2010. PMID: 20425513
327. McGee HS and **Agrawal DK**: Naturally occurring and inducible T-regulatory cells modulating immune response in allergic asthma. *Am. J. Respiratory and Critical Care Medicine* 180: 211-225, 2009. PMID: 19447898
 328. Shao Z, Bharadwaj AS, McGee HS, Makinde TO, **Agrawal DK**: Flt3-ligand increases lung dendritic cell subset with regulatory properties in allergic airway inflammation. *J. Allergy Clinical Immunology* 123(4): 917-924, 2009. PMID: 19348927
 329. Mitra AK, Jia G, Gangahar DM, **Agrawal DK**: Temporal PTEN inactivation causes proliferation of saphenous vein smooth muscle cells of human CABG conduits. *J Cellular and Molecular Medicine* 13: 177-87, 2009; PMID: 18363844
 330. Jia G, Mitra AK, Gangahar DM, **Agrawal DK**: Regulation of cell cycle entry by PTEN in smooth muscle cell proliferation of human coronary artery bypass conduits. *J Cellular and Molecular Medicine* 13: 547-554, 2009; PMID: 18544045
 331. Jia G, Aggarwal H, Yohannes A, Gangahar DM, **Agrawal DK**: Crosstalk between Angiotensin II and IGF-1-induced connexin 43 expressions in human saphenous vein smooth muscle cells. *J Cell Mol Med* 2011; 15(8): 1695-1702; [2010 Aug 23. Epub ahead of print] PMID: 20731749.
 332. Jia G, Cheng G, Gangahar DM, **Agrawal DK**: Involvement of connexin 43 in angiotensin II-induced migration and proliferation of human saphenous vein vascular smooth muscle cells through the ERK, p38 and AP-1 signaling pathways. *J Molecular and Cellular Cardiology* 44: 882-890, 2008. Epub 2008 Mar 12.
 333. Moore B, Murphy RF, **Agrawal DK**: Interaction of TGF- β with immune cells in airway diseases. *Current Molecular Medicine* 8: 427-436, 2008.
 334. Cheng G, Ramanathan A., Shao Z, **Agrawal DK**: Chloride channels and functional diversity in immune cells in pulmonary diseases. *Current Molecular Medicine* 8: 401-407, 2008.
 335. Klionsky DJ, Abeliovich H, Agostinis P, **Agrawal DK** et al.: Guidelines for the use and interpretation of assays for monitoring autophagy in higher eukaryotes. *Autophagy* 4:151-75, 2008.
 336. **Agrawal DK**, Cheng G, Kim MJ, Kiniwa M: Interaction of suplatast tosilate (IPD) with chloride channels in human blood eosinophils: a potential mechanism underlying its anti-allergic and anti-asthmatic effects. *Clin Exp Allergy*. 38:305-12, 2008.
 337. Makinde TO and **Agrawal DK**: Intra and extravascular transmembrane signaling of angiopoietin-1-Tie2 receptor in health and disease. *J. Cell. Mol. Med.* 12: 810-828, 2008. Epub 2008 Feb 4.
 338. Agrawal A, Murphy RF, **Agrawal DK**: DNA methylation in breast and colorectal cancers: Reply to Samowitz and Ogino. *Modern Pathology* 21(8): 1054-5, 2008.
 339. Agrawal A, Murphy RF, **Agrawal DK**: DNA methylation in breast and colorectal cancers: Reply to Berg and Steigen. *Modern Pathology* 21(8): 1063-4, 2008.
 340. Jia G, Cheng G, Soundararajan K, **Agrawal DK**: Insulin-like Growth Factor-1 Receptors in Atherosclerotic Plaques of Symptomatic and Asymptomatic Patients with Carotid Stenosis: Effect of IL-12 and IFN- γ . *Am J Physiol Heart Circ Physiol.* 2007 Feb; 292(2):H1051-7. Epub 2006 Oct 13.
 341. Edwan JH and **Agrawal DK**: Flt3-ligand plasmid prevents the development of pathophysiological features of chronic asthma in a mouse model. *Immunologic Res* 37(2): 147-159, 2007.
 342. Pandey S, Murphy RF, **Agrawal DK**: Recent advances in the Immunobiology of ceramides. *Experimental and Molecular Pathology* 82(3): 298-309, 2007. Epub 2006 Oct 12.

343. Zhang M, Murphy RF, **Agrawal DK**: Decoding IgE Fc receptors. *Immunologic Res* 37(1): 1-16, 2007.
344. Bharadwaj AS and **Agrawal DK**: Transcription factors in the control of dendritic cell life cycle. *Immunologic Res* 37 (1): 79-96, 2007.
345. Bharadwaj AS, **Agrawal DK**: Flt3 Ligand generates morphologically distinct semimature dendritic cells in ovalbumin-sensitized mice. *Exp Mol Pathol* 83(1): 17-24, 2007; Epub 2006 Dec 18.
346. Moran EP, **Agrawal DK**: Increased expression of inhibitor of apoptosis proteins in atherosclerotic plaques of symptomatic patients with carotid stenosis. *Exp Mol Pathol.* 83(1): 11-16, 2007; Epub 2007 Jan 4.
347. Agrawal A, Murphy RF, **Agrawal DK**: DNA methylation in breast and colorectal cancers. *Molecular Pathology* 20(7): 711-721, 2007; Epub 2007 Apr 27.
348. Jia G, Cheng G, **Agrawal DK**: Autophagy of vascular smooth muscle cells in atherosclerotic lesions. *Autophagy* 2007 Jan-Feb;3(1):63-4. Epub 2007 Jan 22.
349. Jia G, Mitra AK, Cheng G, Gangahar DM, **Agrawal DK**: Angiotensin II and IGF-1 regulate connexin43 expression via ERK and p38 signaling pathways in vascular smooth muscle cells of coronary artery bypass conduits. *Journal of Surgical Res* 142: 137-142, 2007; Epub 2007 July 10; PMID: 17624368
350. Makinde L, Murphy RF and **Agrawal DK**: The regulatory role of TGF- β in airway remodeling in asthma. *Immunol Cell Biol.* 85: 348-356, 2007; Epub 2007 Feb 27; PMID: 17325694.
351. Bharadwaj AS, Bewtra AK, **Agrawal DK**: Dendritic cells in allergic airway inflammation. *Can. J. Physiol. Pharmacol.* 85: 686-699, 2007.
352. Cheng G, Shao Z, Chaudhari BR, **Agrawal DK**: Involvement of chloride channels in TGF- β 1-induced apoptosis of human bronchial epithelial cells. *Am. J. Physiol- Lung Cellular and Molecular Physiology* 293: 1339-1347, 2007. First published Sep 14, 2007.
353. Chaudhari BR, Murphy RF, **Agrawal DK**: Following the TRAIL to apoptosis. *Immunologic Research* 35(3): 249-262, 2006.
354. Mitra AK and **Agrawal DK**: In-Stent Restenosis: Bane of the Stent Era. *J. Clinical Pathology* 59(3): 232-239, 2006.
355. Krueger KD, Mitra AK, Del Core M, Hunter WJ, **Agrawal DK**: A comparison of stent-induced stenosis in coronary versus peripheral arteries. *Journal of Clinical Pathology* 59(6): 575-579, 2006; Online publication 10 February 2006.
356. Yang J, Agrawal A, **Agrawal DK**: Chemosensitization by targeting anti-apoptosis genes in solid malignant tumors: From bench to bedside. In: Chemo-Immunosensitization of Resistant Tumor Cells to Cell Death by Apoptosis, ed. Benzamin Bonavida. Transworld Research Network, 2006; pp. 77-90 (ISBN: 81-7895-242-4).
357. Mitra AK, Gangahar DM, **Agrawal DK**: Cellular, molecular, and immunologic mechanisms in the pathophysiology of vein graft intimal hyperplasia. *Immunology and Cell Biology* 84(2): 115-124, 2006.
358. Pandey S and **Agrawal DK**: Immunobiology of toll-like receptors: emerging trends. *Immunology and Cell Biology* 84(4): 333-341, 2006.
359. Jia G, Cheng G, Gangahar DM, **Agrawal DK**: Insulin-like growth factor-1 and TNF- α regulate autophagy through c-jun N-terminal kinase and Akt pathways in human atherosclerotic vascular smooth muscle cells. *Immunology and Cell Biology* 84: 448-454, 2006; Online publication 25 May 2006.
360. Cheng G, Kim M-J, Jia G and **Agrawal DK**: Involvement of chloride channels in IGF-1-induced proliferation of porcine arterial smooth muscle cells. *Cardiovascular Research* 73: 198-

207, 2007.

361. Jia G, Cheng G, **Agrawal DK**: Differential effects of insulin-like growth factor-1 and atheromas-associated cytokines on cell proliferation and apoptosis in plaque smooth muscle cells of symptomatic and asymptomatic patients with carotid stenosis. *Immunology and Cell Biology* 84: 422-429, 2006; Online publication 24 April 2006.
362. McGee Halvor S and **Agrawal DK**: Th2 cells in the pathogenesis of airway remodeling; Regulatory T cells a plausible panacea for asthma. *Immunologic Res* 35 (3): 219-232, 2006.
363. Makinde L, Murphy RF and **Agrawal DK**: Immunomodulatory role of VEGF and angiopoietin-1 in airway remodeling. *Current Molecular Medicine* 6 (8): 831-841, 2006.
364. Mitra AK and **Agrawal DK**: Gene therapy of fibroproliferative vasculopathies: current ideas in molecular mechanisms and biomedical technology. *Pharmacogenomics* 7 (8): 1185-98, 2006.
365. Agrawal A, Yang J, Murphy RF, **Agrawal DK**: Regulation of the p14ARF-Mdm2-p53 Pathway: An overview in Breast Cancer. *Experimental and Molecular Pathology* 81(2): 115-122, 2006; PMID: 16919268
366. Allen RT, Krueger KD, Dhume A, **Agrawal DK**: Sustained Akt/PKB activation and transient attenuation of c-Jun N-terminal kinase in the inhibition of apoptosis by IGF-1 in vascular smooth muscle cells. *Apoptosis* 10: 525-535, 2005.
367. Allen RT, Krueger KD, Hunter WJ, **Agrawal DK**: Evidence that IGF-1 requires PKC- ϵ , PI3-kinase and MAP kinase pathways to protect human and rat vascular smooth muscle cells from apoptosis. *Immunology and Cell Biology* 83(6): 651-667, December 2005.
368. Rakesh K and **Agrawal DK**: Cytokines and growth factors involved in control and proliferation of apoptotic smooth muscle cells. *Int. Immunopharmacol* 5:1487-1506, 2005.
369. **Agrawal DK** and Bharadwaj A: Allergic airway inflammation. *Current Allergy and Asthma Reports* 5(2): 142-148, 2005.
370. Edwan J, Talmadge JE, **Agrawal DK**: Treatment with Flt3 Ligand Plasmid Reverses Allergic Airway Inflammation in Ovalbumin Sensitized and Challenged Mice. *Int. Immunopharmacol.* 5: 345-357, 2005.
371. Rakesh K and **Agrawal DK**: Controlling cytokine signaling by constitutive inhibitors. *Biochemical Pharmacology* 70: 649-657, 2005.
372. Mitra AK, DelCore M, **Agrawal DK**: Cells, cytokines, and cellular immunity in the pathogenesis of fibroproliferative vasculopathies. *Can. J. Physiology & Pharmacology* 83(8-9): 701-715, 2005.
373. Wittel UA, Jain M, Goel A, Baranowska-Kortylewicz J, Kurizaki T, Chauhan SC, **Agrawal DK**, Colcher D, Batra SK: Engineering and characterization of a divalent single-chain Fv angiotensin II fusion construct of the monoclonal antibody CC49. *Biochem Biophys Res Commun.* 329:168-176, 2005.
374. **Agrawal DK**, Hopfenspirger MT and Edwan J: Immunomodulators in allergic airway inflammation in asthma. *Modern Aspects of Immunobiology* 15: 19-23, 2005.
375. Wells IC, **Agrawal DK**, Anderson RJ: Abnormal magnesium metabolism in etiology of salt-sensitive hypertension and type 2 diabetes mellitus. *Biol. Trace Elem. Res.* 98: 97-108, 2004.
376. Kim MJ, Cheng G, **Agrawal DK**: Chloride channels are expressed in human blood monocytes: A functional role in migration, adhesion, and volume change. *Clinical Exp Immunology* 138: 453-459, 2004.
377. **Agrawal DK**: Anti-inflammatory properties of desloratadine. *Clinical and Experimental Allergy* 34: 1342-1348, 2004.
378. **Agrawal DK**, Ariyaratna K, Kelbe PW: S-albuterol activates pro-constrictory and inflammatory pathways in human bronchial smooth muscle cells. *J Allergy Clin Immunol* 113:

- 503-510, 2004.
379. Berro AI, Perry GA, **Agrawal DK**: Induction of apoptosis by CD30 activation in human blood eosinophils. *J Immunology* 173: 2174-2183, 2004.
380. **Agrawal DK**, Edwan J, Kandimalla ER, Yu D, Agrawal S: Novel immunomodulatory oligonucleotides (IMOs) prevent development of allergic airway inflammation and airway hyperresponsiveness in asthma. *Int. Immunopharmacol* 4: 127-138, 2004.
381. Nathoo N, Narotam PK, **Agrawal DK**, Connolly CA, Van Dellen JR, Barnett GH, Chetty R: Influence of apoptosis on neurological outcome following traumatic cerebral contusion. *J Neurosurgery* 101: 233-240, 2004.
382. Edwan JH, Perry G, Talmadge JE, **Agrawal DK**: Flt3-ligand reverses late allergic response and airway hyperresponsiveness in a mouse model of allergic inflammation. *J Immunology* 172: 5016-5023, 2004.
383. Bharadwaj A and **Agrawal DK**: Immunomodulation in Asthma: A distant dream or a close reality? *Int. Immunopharmacol.* 4(4): 495-511, 2004.
384. **Agrawal DK**: Reply to: Significance of the eudismic ratio and enantiomeric purity of the albuterol distomer. *J Allergy Clin Immunol* 114: 991-992, 2004.
385. **Agrawal DK** and Jehad Edwan: Th1/Th2-Polarized Immunity. Medimond S.r.l. - Monduzzi Editore International Proceedings of the 6th Asia Pacific Congress of Allergology and Clinical immunology- October 2004; pp 1-6.
386. Abraha D, Cho SH, **Agrawal DK**, Park JM, Oh CK: (S, S)-formoterol increases the production of IL-4 in mast cells and the airways of a murine asthma model. *Int Arch Allergy Immunol* 133: 380-388, 2004.
387. Mitra AK, Dhume A, **Agrawal DK**: Vulnerable plaques: Ticking of the time bomb. *Can. J Physiol and Pharmacol* 82(10): 860-871, 2004.
388. Krueger KD, Hunter WJ, **Agrawal DK**: Calphostin C as a rapid and strong inducer of apoptosis in human coronary artery smooth muscle cells. *International Immunopharmacology* 3: 1751-1759, 2003.
389. Dhume AS, Soundararajan K, Hunter WJ, **Agrawal DK**: Comparison of vascular smooth muscle cell apoptosis and fibrous cap morphology in symptomatic and asymptomatic carotid artery disease. *Annals of Vascular Surgery* 17: 1-8, 2003.
390. Dhume AS and **Agrawal DK**: Inability of vascular smooth muscle cells to proceed beyond S phase of cell cycle and increased apoptosis in symptomatic carotid artery disease. *Journal of Vascular Surgery* 38: 155-161, 2003.
391. Hopfenspirger MT, Parr SK, Townley RG, **Agrawal DK**: Attenuation of the late allergic response by mycobacterial antigens is independent of IgE in a mouse model of asthma. *Allergology International* 51: 21-32, 2002.
392. Kim MH and **Agrawal DK**: Effect of interleukin-1 β and tumor necrosis factor- α on the expression of G-proteins in CD4⁺ cells of atopic asthmatic subjects. *J Asthma* 39: 441-448, 2002.
393. Hopfenspirger MT and **Agrawal DK**: Airway hyperresponsiveness, late allergic response, and eosinophilia are reversed with mycobacterial antigens in ovalbumin pre-sensitized mice. *J Immunology* 168: 2516-2522, 2002.
394. Townley RG, Hopp RJ, **Agrawal DK**, Casale TB, Hopfenspirger MT: Immunomodulation in the treatment and/or prevention of bronchial asthma. *Allergology International* 51: 63-74, 2002.
395. Hopfenspirger MT, Parr SK, Hopp RJ, Townley RG, **Agrawal DK**: Mycobacterial antigens attenuate late allergic response, airway hyperresponsiveness, and bronchoalveolar lavage

- eosinophilia in a mouse model of bronchial asthma. *Int Immunopharmacol* **1(9)**, 1743-1751, 2001.
396. **Agrawal DK**, Hopfenspirger MT, Chavez J, Talmadge JE: Flt3-Ligand attenuates late phase response, airway hyperresponsiveness, and bronchoalveolar lavage eosinophilia in a mouse model of bronchial asthma. *Int Immunopharmacol* **1(12)**: 2081-2089, 2001.
397. **Agrawal DK**: Pharmacology and clinical efficacy of desloratadine as an anti-allergic and anti-inflammatory drug. *Exp. Opin. Invest. Drugs* **10(3)**: 547-560, 2001.
398. Suwaki T, **Agrawal DK**, Townley RG: Modification of eosinophil function by Suplatast tosilate (IPD), a new type of anti-allergic drug. *Int Immunopharmacol* **1 (12)**: 2163-2171, 2001.
399. Balaram SK, **Agrawal DK**, Edwards JD: Insulin-like growth factor-1 activates nuclear factor kB and increases transcription of ICAM-1 gene in endothelial cells. *Cardiovasc Surgery* **7**: 91-97, 1999.
400. **Agrawal DK** and Townley RG: Platelet activating factor receptor antagonists in bronchial asthma. In: *New and Exploratory Therapeutic Agents for Asthma*, eds.M Yeadon and Z Diamant, Marcel Dekker, Inc., New York, NY, 1999-2000. pp. 183-202.
401. XX Zhan, **Agrawal DK**, PE Thorpe: Effect of iodinated contrast media on neutrophil adherence to cultured endothelial cells. *J Vasc Interventional Radiology* **9**:1-9, 1998.
402. Thorpe PE, Zhan XX, **Agrawal DK**, Hunter WJ, Farb A, Virmani R: Multiple arterial injuries and prolonged cholesterol feeding do not increase percent lumen stenosis: Impact of compensatory enlargement in the microsine model. *Cardiovascular Pathology* **7**: 1-8, 1998.
403. Pai J, Knoop FC, Hunter WJ, **Agrawal DK**: *Chlamydia pneumoniae* and occlusive vascular disease: Identification and characterization. *J Pharmacol Toxicol Methods* **38**: 1-11, 1998.
404. Chong BTY, **Agrawal DK**, Romero FA, Townley RG: Measurement of bronchoconstriction using whole body plethysmograph: comparison of freely moving vs. restrained guinea pigs. *J Pharmacol Toxicol Methods* **39**: 1-6, 1998.
405. Allen RT, Cluck MW, **Agrawal DK**: Mechanisms controlling cellular suicide: role of Bcl-2 and caspases. *Cellular and Molecular Life Sciences* **54**: 427- 445, 1998.
406. Allen RT, Pai J, Bovard K, Hunter WJ, **Agrawal DK**: Immunogold staining for Bcl-xL and morphological analysis of rat and human vascular smooth muscle cells undergoing apoptosis induced by c-Myc or staurosporine. *SCANNING* **20**: 207-208, 1998.
407. Allen RT, Hunter WJ, **Agrawal DK**: Morphologic and temporal analysis of vascular smooth muscle cell apoptosis induced by c-Myc and E1A. *SCANNING* **20**: 577-586, 1998.
408. Chong BTY, **Agrawal DK**, Romero FA, Townley RG: An *in vivo* model of beta-adrenoceptor desensitization. *J Pharmacol Toxicol Methods* **40**: 109-115, 1998.
409. **Agrawal DK**, Takami M, Ono S: A novel thromboxane synthetase inhibitor, DP-1904, inhibits human blood eosinophil degranulation. *Inflammation* **21**: 1-8, 1997.
410. Balaram SK, **Agrawal DK**, Allen T, Kuszynski CA, Edwards JD: Cell adhesion molecules and Insulin-like growth factor-1 in vascular disease. *Journal of Vascular Surgery* **25**: 866-876, 1997.
411. Cavallari N, Abebe W, Mingoli A, Hunter WJ, **Agrawal DK**, Sapienza P, Cavallaro A, Edwards JD: Functional and morphological evaluation of canine veins following preservation in different storage media. *J Surgical Research* **68**: 106-115, 1997.
412. Cavallari N, Abebe W, Mingoli A, Sapienza P, Hunter WJ, **Agrawal DK**, Cavallaro A, and Edwards JD: Short term preservation of autologous vein graft: Effectiveness of University of Wisconsin solution. *Surgery* **121**: 64-71, 1997.
413. R. Todd Allen, Hunter WJ, **Agrawal DK**: Morphological and biochemical characterization and analysis of apoptosis. *J Pharmacol Toxicol Methods* **37**: 215-228, 1997.
414. **Agrawal DK**: Biochemical and pharmacological basis of receptor-response coupling and the

- role of G-proteins in the action of immune-reacting substances. In: Immunopharmacology of Allergic Diseases, eds. RG Townley and DK Agrawal, Marcel Dekkar, Inc., New York, NY, chapter 1, 1996, pp. 1-28.
415. **Agrawal DK** and Kavanaugh AF: Cell adhesion molecules in allergic diseases. In: Immunopharmacology of Allergic Diseases, eds. RG Townley and DK Agrawal, Marcel Dekkar, Inc., New York, NY, chapter 4, 1996, pp. 99-118.
 416. **Agrawal DK**, Sarmiento EU, Nabe M, Miyagawa H, and Townley RG: Increased number of hypodense eosinophils after activation with PAF-acether or calcium ionophore in asthmatic subjects. *J Asthma* **33**: 213-219, 1996.
 417. Joshi S, Abebe W, **Agrawal DK**: G-proteins in guinea pig airway smooth muscle: Identification and functional involvement. *Pharmacological Research* **33**: 195-202, 1996.
 418. Joshi S, Abebe W, **Agrawal DK**: Identification of guanine nucleotide binding regulatory proteins in bovine tracheal smooth muscle. *Molecular and Cellular Biochemistry* **154**: 179-184, 1996.
 419. Chisholm LJ, Dovgan PS, **Agrawal DK**, McGregor PE, Edwards JD: Modulation of leukocyte adherence to endothelial cells by endothelin-1: Involvement of Src (p60^{src}) and JAK1-like kinases. *J Vascular Surgery* **23**: 288-300, 1996.
 420. Dovgan PS, Edwards JD, Rowley JM, **Agrawal DK**, Adrian TE: Effects of ischemia and reperfusion on vasoactive neuropeptide levels in the canine infrarenal aortic revascularization model. *Cardiovascular Surgery* **4**: 470-475, 1996.
 421. Sapienza P, Edwards JD, Mingoli A, McGregor PE, Cavallari N, **Agrawal DK**: Ischemia-induced peripheral arterial vasospasm: Role of α_1 - and α_2 -adrenoceptors. *J Surgical Res* **62**: 192-196, 1996.
 422. Chisholm LJ, **Agrawal DK**, Pearson TJ, Edwards JD: Endothelin-1 induces tyrosine phosphorylation in human blood monocytes. *Mol Cell Biochem* **159**: 33-38, 1996.
 423. Abebe W, Ali N, **Agrawal DK**: Platelet-activating factor-induced inositol 1,4,5-trisphosphate generation in undifferentiated and differentiated U937 cells: Role of tyrosine kinase. *Int J Immunopharmacol* **18**: 173-181, 1996.
 424. Zhan XX, Thorpe PE, and **Agrawal DK**: Pharmacokinetic, angiographic, and histologic comparison of catheter-directed chemoembolization versus systemic chemotherapy in a canine model. *Can J Physiol Pharmacol* **74**: 1117-1125, 1996.
 425. Thorpe PE, Hunter WJ, Zhan XX, Dovgan PS, and **Agrawal DK**: A non-injury, diet-induced swine model of atherosclerosis for cardiovascular-interventional research. *Angiology* **47**: 849-858, 1996.
 426. **Agrawal DK**, Tyndall SH, Zhan XX: Merits and demerits of intravascular stents in vascular disease. Proceedings of the 3rd IBC International Conference on Restenosis, Cambridge, MA, pp 80-91, 1996.
 427. Dovgan PS, Edwards JD, Ayoub NT, Thorpe P, **Agrawal DK**: Arterial embolism from anatomical variation at the thoracic outlet: a case report. *Clin Anatomy* **8**: 222-226, 1995.
 428. Abebe W, Edwards JD, **Agrawal DK**: G-proteins in rat blood vessels. I. Identification. *Gen Pharmacol* **26**: 65-73, 1995.
 429. Abebe W, Edwards JD, **Agrawal DK**: G-proteins in rat blood vessels. II. Assessment of functional involvement. *Gen Pharmacol* **26**: 75-83, 1995.
 430. Cavallari N, Abebe W, Hunter WJ, **Agrawal DK**, Sapienza P, Mingoli A, Cavallaro A, Edwards JD: University of Wisconsin solution effects on intimal proliferation in canine autogenous vein grafts. *J Surgical Res* **59**: 433-440, 1995.

431. Edwards JD, McGregor PE, Dovgan PS, **Agrawal DK**: Effect of endothelin-1 on arterial response to BAY K 8644: A comparison of ischemic and non-ischemic arteries. *Life Sciences* **57**: 225-234, 1995.
432. Ali N and **Agrawal DK**: Enhanced expression of GTP-binding proteins in differentiated U937 monocytic cells: Possible involvement of tyrosine kinase and protein kinase C. *Molecular and Cellular Biochemistry* **152**: 113-120, 1995.
433. Abebe W and **Agrawal DK**: Role of tyrosine kinases in norepinephrine-induced contraction of vascular smooth muscle. *J Cardiovasc Pharmacol* **26**: 153-159, 1995.
434. **Agrawal DK**, Ali N, and Abebe W: Increased expression and activity of G-proteins and PAF receptors in differentiated U937 cells is mediated by tyrosine phosphorylation. *J Lipid Mediators* **10**: 67-68, 1994.
435. Edwards JE, Dovgan PS, Rowley JM, **Agrawal DK**, Thorpe PE, Adrian TE: Endothelin-1 levels in ischemia, reperfusion, and hemorrhagic shock in the canine infrarenal aortic revascularization model. *Eur J Vasc Surgery* **8**: 729-734, 1994.
436. Edwards JE, Dovgan PS, Rowley JM, Thorpe PE, Adrian TE, **Agrawal DK**: Neuropeptide Y levels in ischemia and reperfusion in the canine infrarenal aortic revascularization model. *Annals Vasc Surgery* **8**: 350-355, 1994.
437. McGregor PE, **Agrawal DK**, Edwards JD: Attenuation of human leukocyte adherence to endothelial cell monolayers by tyrosine kinase inhibitors. *Biochem Biophys Res Commun* **198**: 359-365, 1994.
438. McGregor PE, **Agrawal DK**, Edwards JD: Technique for assessment of leukocyte adherence to human umbilical vein endothelial cell monolayers. *J Pharmacol Toxicol Methods* **32**:73-77, 1994.
439. Ali N and **Agrawal DK**: Guanine nucleotide binding regulatory proteins: Their characteristics and identification. *J Pharmacol Toxicol Methods* **32**: 187-196, 1994.
440. Dovgan PS, Edwards JD, Zhan X, Wilde M, **Agrawal DK**: Cigarette smoking increases monocyte adherence to cultured endothelial cell monolayer. *Biochem Biophys Res Commun* **203**: 929-934, 1994.
441. Abebe W, Cavallari N, **Agrawal DK**, Rowley J, Thorpe PE, Hunter WJ, and Edwards JD: Functional and morphological assessment of rat aorta stored in University of Wisconsin (UW) and Eurocollins (EC) solutions. *Transplantation* **56**: 808-816, 1993.
442. Edwards JE, Sapienza P, Lefkowitz DM, McGregor PE, **Agrawal DK**; Post-traumatic innominate artery aneurysm with occlusion of the common carotid at its origin by an intimal flap: Case report. Duplex scan, angiographic and MRA studies. *Annals of Vascular Surgery* **7**: 368-373, 1993.
443. **Agrawal DK** and Numao T: Transmembrane signaling in eosinophils. In: Eosinophils, eds. S. Makino and T. Fukuda, CRC Press, Inc., Boca Raton, FL, 1993, chap. 8, pp. 171-192.
444. **Agrawal DK**, Ali N, Numao T: PAF receptors and G-proteins in human blood eosinophils and neutrophils. *J Lipid Mediators* **5**: 101-104, 1992.
445. Ali N, and **Agrawal DK**: Liver microsomes contain multiple forms of inositol 1, 4, 5-trisphosphate binding proteins: Identification by nitrocellulose blot-overlay. *J Pharmacological and Toxicological Methods* **27**: 79-83, 1992.
446. **Agrawal DK**, Wildrick DM, and Boman BM: Characteristics of alpha-adrenoceptors in two human colorectal cancer cell lines. *Biochem Biophys Res Commun* **185**: 176-184, 1992.
447. Ali N, **Agrawal DK**, and Cheung P: Identification of G-proteins in rat parotid gland plasma membranes and granule membranes: presence of distinct components in granule membranes. *Molecular and Cellular Biochemistry* **115**: 155-162, 1992.

448. Wells IC and **Agrawal DK**: Abnormal magnesium metabolism in two rat models of genetic hypertension. *Can J Physiol Pharmacol* **70**: 1225-1229, 1992.
449. Numao T and **Agrawal DK**: Neuropeptides modulate human eosinophil chemotaxis. *J Immunology* **149**: 3309-3315, 1992.
450. **Agrawal, D.K.**: Platelet-activating factor receptors in the airways. In: Inflammatory cells and mediators in bronchial Asthma, eds. **Agrawal, D.K.** and Townley, R.G., CRC Press Inc., Boca Raton, Florida, 1991, chap. 10, pp.171-206.
451. Hopp RJ, Townley RG, **Agrawal DK**, Bewtra AK: Terfenadine effect on the bronchoconstriction, dermal response, and leukopenia induced by platelet-activating factor. *CHEST* **100**: 994-998, 1991.
452. **Agrawal DK**, Bergren DR, Byorth PJ and Townley RG: Platelet-activating factor induces non-specific desensitization to bronchodilators in guinea pigs. *J Pharmacol Exp Ther* **259**: 1-7, 1991.
453. Miyagawa H, Okada C, Sugiyama H, Hopp RJ, **Agrawal DK**, Bewtra AK, and Townley RG: Variations in chemotaxis and chemokinesis of neutrophils of different densities from patients with allergic rhinitis. *Annals of Allergy* **67**: 515-519, 1991.
454. Bhatia SC, Hsieh HH, Theesen KA, Townley RG, Andersen JM, Weiss S, and **Agrawal DK**: Platelet alpha-2 adrenoceptor activity pre-treatment and post-treatment in major depressive disorder with melancholia. *Res Comm Chem Pathol Pharmacol* **74**: 47-57, 1991.
455. Nabe M, Miyagawa H, **Agrawal DK**, Sugiyama H., Townley RG: The effect of ketotifen on eosinophils as measured by LTC₄ release and by chemotaxis. *Allergy Proceedings* **12**: 1-5, 1991.
456. Nabe M, Miyagawa H, Hopp RJ, **Agrawal DK**, Bewtra AK, Townley RG: Fibronectin levels in plasma after platelet-activating factor inhalation. *Int Arch Allergy Applied Immunology* **91**: 113-117, 1990.
457. Hopp RJ, Bewtra AK, Nabe M, **Agrawal DK**, Townley RG: Effect of platelet-activating factor inhalation on non-specific bronchial reactivity and adrenergic response in normals and asthmatics. *CHEST* **96**: 936-941, 1990.
458. Kohi F, Miyagawa H, **Agrawal DK**, Bewtra AK, Townley RG: Generation of leukotriene B₄ and D₄ from granulocytes of normal controls, allergic rhinitis, and asthmatic subjects. *Annals of Allergy* **65**: 228-235, 1990.
459. Miyagawa H, Nabe M, Hopp RJ, **Agrawal DK**, Bewtra AK, Townley RG: Elevation of neutrophil chemotactic activity in the human serum and the decreased number of neutrophils after platelet-activating factor inhalation. *Int Arch Allergy Applied Immunology* **92**: 199-202, 1990.
460. Miyagawa H, Okada C, Sugiyama H, Hopp RJ, **Agrawal DK**, Nabe M, Gordy C, Bewtra AK, Townley RG: Density distribution and density conversion of neutrophils in allergic subjects. *Int Arch Allergy Appl Immunology* **93**: 8-13, 1990.
461. **Agrawal, D.K.**: Adrenoceptors in the Airways: Their Characteristics and Clinical Implications, In: Focus on Pulmonary Pharmacology and Toxicology, ed. M. A. Hollinger, CRC Press, Boca Raton, FL., 1990, chap. 5, pp. 85-104.
462. Townley, R.G., and **Agrawal, D.K.**: Adrenergic and cholinergic receptors and airway responsiveness; In: Airway Smooth Muscle: Receptor Modulation and Response, eds. **D.K. Agrawal**, and R.G. Townley, CRC Press, Inc., Boca Raton, FL., 1990, Chap. # 10, pp. 229-258.
463. Paul S, Said SI, Thompson AB, Volle DJ, **Agrawal DK**, Foda H, and Rocha S de la: Characterization of autoantibodies to vasoactive intestinal peptide in asthma. *J Neuroimmunology* **29**: 133-142, 1989.
464. Tamura, N., **Agrawal, D.K.** and Townley, R.G.: Role of eosinophil chemotactic factors on eosinophil activation and leukotriene C₄ production. In: Eosinophils in Asthma, ed. J.

- Morley, Academic Press, 1989; chapter 4, pp. 93-117.
465. **Agrawal, D.K.**, Fugate, M.J. and Townley, R.G.: Platelet-activating factor-induced microvascular permeability in mice. In: Platelet-Activating Factor in Endotoxin and Immune Diseases, eds. D. A. Handley, R. N. Saunders, W. J. Houlihan and J. C. Tomesch, Marcel Dekker, Inc. New York, 1989; chapter 9, pp. 177-188.
 466. Nabe M, **Agrawal DK**, Sarmiento EU, Townley RG: Inhibitory effect of terfenadine on mediator release from human blood basophils and eosinophils. *Clinical and Experimental Allergy* **19**: 515-520, 1989.
 467. Hopp RJ, Bewtra AK, **Agrawal DK**, Townley RG: Effect of platelet-activating factor inhalation on non-specific bronchial reactivity in man. *CHEST* **96**: 1070-1072, 1989.
 468. Townley RG, Hopp R, **Agrawal DK**, and Bewtra AK: Platelet-activating factor and airway reactivity. *J Allergy Clinical Immunology* **83**: 997-1012, 1989.
 469. **Agrawal, D.K.**, Borkowski, K. and Daniel, E.E.: Adrenoceptors and their alterations in hypertension. In: Membrane Abnormalities in Hypertension, vol. II, ed. C.Y. Kwan, CRC Press, Boca Raton, FL., 1989; chapter 2, pp. 23-57.
 470. Kohi F, **Agrawal DK**, Cheng JB, Bewtra A, Townley RG and Olesch JW: The development of a sensitive and specific radioreceptor assay for leukotriene B₄. *Life Sciences* **42**: 2241-2248, 1988.
 471. Tamura, N., **Agrawal, D.K.**, Townley, R.G. and Braquet, P.G.: Platelet-activating factor, human eosinophils and ginkgolide B (BN 52021). In: Ginkgolides-Chemistry, Biology, Pharmacology and Clinical Perspectives, Vol. 1, ed. P. Braquet, J. R. Prous Science Publishers, Barcelona, Spain, 1988, pp. 217-224.
 472. **Agrawal, D.K.** and Townley, R.G.: PAF, human lung beta-adrenoceptors and ginkgolide B (BN 52021). In: Ginkgolides-Chemistry, Biology, Pharmacology and Clinical Perspectives, Vol. 1, ed. P. Braquet, J. R. Prous Publisher, Barcelona, Spain, 1988, pp. 355-364.
 473. Townley RG, Cheng J, Bewtra AK, Nair N, Hopp R and **Agrawal DK**: The role of calcium channel blockers in reactive airway disease. *Annals NY Acad Sciences* **522**: 732-746, 1988.
 474. Koshino T, **Agrawal DK**, Townley TA and Townley RG: Ketotifen prevents terbutaline-induced down-regulation of beta-adrenoceptors in guinea pig lung. *Biochem Biophys Res Commun* **152**: 1221-1227, 1988.
 475. Tamura N, **Agrawal DK**, and Townley RG: Leukotriene C₄ production from human eosinophils in vitro: Role of eosinophil chemotactic factors on eosinophil activation. *J Immunology* **141**, 4291-4297, 1988.
 476. **Agrawal DK**, Bhimji S and McNeill JH: Effect of chronic experimental diabetes on vascular smooth muscle function in rabbit carotid artery. *J Cardiovasc Pharmacol* **9**: 584-593, 1987.
 477. **Agrawal DK** and McNeill JH: Vascular responses to agonists in rat mesenteric artery from diabetic rats. *Can J Physiol Pharmacol* **65**: 1484-1490, 1987.
 478. **Agrawal, DK**, Crankshaw, DJ and Daniel, EE: Postsynaptic alpha adrenoceptors in vascular smooth muscle. In: Sarcolemmal Biochemistry, vol. II, ed. A. M. Kidwai, CRC Press, Boca Raton, FL., 1987; chapter 4, pp 99-127.
 479. **Agrawal DK** and Townley RG: Effect of platelet-activating factor on beta adrenoceptors in human lung. *Biochem Biophys Res Commun* **143**: 1-6, 1987.
 480. Tamura N, **Agrawal DK**, Suliaman FA and Townley RG: Effects of platelet-activating factor on the chemotaxis of normodense eosinophils from normal subjects. *Biochem Biophys Res Commun* **142**: 638-644, 1987.
 481. Kohi F, **Agrawal DK**, Cheng JB, Bewtra A and Townley RG: A simple and sensitive radioreceptor assay for leukotrienes. *Prostaglandins* **33**: 121-136, 1987.

482. Tamura N, **Agrawal DK**, and Townley RG: Identification and characterization of leukotriene C₄ and D₄ receptors on a cultured smooth muscle cell line, BC3H-1. *Life Sciences* **41**: 207-216, 1987.
483. **Agrawal DK** and McNeill JH: Effect of diabetes on vascular smooth muscle function in normotensive and spontaneously hypertensive rat mesenteric artery. *Can J Physiol Pharmacol* **65**: 2274-2280, 1987.
484. Tamura N, **Agrawal DK**, and Townley RG: A specific radioreceptor assay for leukotriene C₄ and the measurement of calcium ionophore-induced leukotriene C₄ production from human leukocytes. *J Pharmacol Methods* **18**: 327-333, 1987.
485. **Agrawal DK**, Schugel JW, and Townley RG: Comparison of beta-adrenoceptors in bovine airway epithelium and smooth muscle cell membrane. *Biochem Biophys Res Commun* **148**: 178-183, 1987.
486. **Agrawal DK**, Grover AK, Daniel EE, and Jung C: Determination of molecular size of alpha-1 and alpha-2 adrenoceptors in rat mesenteric artery by radiation inactivation. *J Pharmacol Exp Ther* **236**: 748-752, 1986.
487. **Agrawal DK** and Daniel EE: Two distinct populations of [³H]prazosin and [³H]yohimbine binding sites in the plasma membranes of rat mesenteric artery. *J Pharmacol Exp Ther* **233**: 195-203, 1985.
488. **Agrawal DK**, Berezin I, and Daniel EE: Effect of chemical sympathectomy by 6-hydroxydopamine on [³H]yohimbine binding sites in rat mesenteric artery. *Prog Appl Microcirc* **8**: 59-67, 1985.
489. **Agrawal DK** and Daniel EE: Agonist interaction with radiolabeled alpha-adrenoceptor antagonist binding sites in rat mesenteric artery. *J Cardiovasc Pharmacol* **7 (Suppl.6)**: S66-S75, 1985.
490. Grover AK, **Agrawal DK**, Ahmed S, Daniel EE, Kwan CY, Oakes PJ, Sipos SN, Berenski C and Jung C: Target size of 5'-nucleotidase in smooth muscle. *J. Biochem. (Tokyo)* **98**: 573-575, 1985.
491. Pandey BR, **Agrawal DK**, Parmar SS, Wilson WW and Mayer GG: Central nervous system depressant, analgesic and monoamine oxidase inhibitory properties of substituted piperidines. *Res Comm Chem Pathol Pharmacol* **43**: 173-176, 1984.
492. **Agrawal DK**, Triggler CR and Daniel EE: Pharmacological characterization of the postsynaptic alpha adrenoceptors in vascular smooth muscle from canine and rat mesenteric vascular beds. *J Pharmacol Exp Ther* **229**: 831-838, 1984.
493. **Agrawal DK** and Daniel EE: Increased density of [³H]yohimbine binding sites in spontaneously hypertensive rat mesenteric artery. *J Hypertension* **2 (Suppl.3)**: 107-110, 1984.
494. Nath P, **Agrawal DK** and Mehrotra RML: Ultrastructural changes in muscles by dengue virus infection. *The J. Pathology (London)* **136**: 301-305, 1982.
495. Siddiqui JS, Kapoor AK, Rathi AK, Tuteja N, Kumar A, Mitra MK, **Agrawal DK** and Mehrotra RML: Immunopathological alterations in minimal change nephrotic syndrome. *Indian J. Med. Research* **76**: 736-741, 1982.
496. Triggler CR, **Agrawal DK**, Bolger GT, Daniel EE, Kwan CY, Luchowski EM and Triggler DJ: Calcium channel antagonist binding to isolated vascular smooth muscle membranes. *Can J Physiol Pharmacol* **60**: 1738-1740, 1982.
497. Malik GK, Saksena PN, Mehra P, Kapoor AK, and **Agrawal DK**: Amniotic fluid proteins in relation to fetal maturity. *Indian J. Pediatrics* **48**: 149-152, 1981.
498. Malik GK, Saksena PN, Mehra P, Kapoor AK, and **Agrawal DK**: Maternal serum alkaline phosphatase and fetal maturity. *Indian J. Pediatrics* **48**: 153-157, 1981.

499. Kushwaha MRS, Arora KL, **Agrawal DK**, Bagchi M and Mehrotra RML: Serum copper levels in leukemias and lymphomas. *Indian Medical Gazette* **CXIV(1)**: 5-8, 1980.
500. **Agrawal DK** and Pandey BR: Monoamine oxidase and pyruvate oxidase inhibitory properties of some newer thiosemicarbazones and their anticonvulsant activity. *Res. Comm. Chem. Pathol. Pharmacol.* **26**: 525-533, 1979.
501. **Agrawal DK**, Kumar A and Pandey BR: Substituted piperidines as anticonvulsants. *Indian J. Pharmacy* **39**: 139-140, 1978.
502. **Agrawal DK**, Tandon P, Chaturvedi UC, and Kumar A: Biochemical study of certain enzymes and metabolites of the carbohydrate metabolism in the skeletal muscle of dengue virus infected mice. *J. Gen. Virology* **40**: 399-408, 1978.
503. Chaturvedi UC, **Agrawal DK**, Bahuguna LM, Mathur A and Mehrotra RML: Effect of streptolysin 'O' on subcellular organelles of tissue culture. *Current Science* **44**: 773-775, 1975.

D. ABSTRACTS PUBLISHED (Peer-Reviewed) and PRESENTED at NATIONAL and INTERNATIONAL MEETINGS (in chronological order):

1. **Agrawal, D.K.**, Kumar, A., and Mehrotra, R.M.L. (1977): Changes in catecholamines and serotonin concentrations in mouse brain infected with dengue virus and effect on MAO & AChE. *Indian J. Pharmacol.* **39**: 170.
2. **Agrawal, D.K.** and Pandey, B.R. (1978): Inhibition of succinate dehydrogenase by some newer thiobarbiturates. *Proc. Natl. Acad. Sci.*, March 1978.
3. **Agrawal, D.K.** and Pandey, B.R. (1978): Antihemolytic, antiproteolytic and anticonvulsant properties of some newer phenothiazines. *Indian J. Pharmacology* **10**: 60.
4. **Agrawal, D.K.** and Pandey, B.R. (1978): Anticonvulsant activity of new thiosemicarbazones and their effect on rat brain MAO and pyruvate oxidase. *Indian J. Pharmaceutical Sciences* **40(6)**: 221.
5. **Agrawal DK**, Khan P, Mukerjee PK, Kumar A and Khanna BK (1978): Thioacetazone toxicity in patients of pulmonary tuberculosis. *Indian Pharmacol. Soc. Proceedings of XI Annual conference, Dec. 1978, page 44.*
6. Kunwar M, **Agrawal DK**, Kumar A and Mehrotra RML (1979): Serum copper and ceruloplasmin in hepatic and cardiac disorders. *Indian J. Biochem. Biophys.* **16(2)**: 98.
7. **Agrawal DK** and Mehrotra RML (1979): Biochemical studies of experimental dengue virus disease in mice. *Indian J. Biochem. Biophys.* **16(2)**: 95.
8. Grover AK, Kwan CY, **Agrawal DK**, Ramlal T, Wong KW, Lee RMKW and Daniel EE (1981): Bovine aorta membrane fractionation and characterization. *Fed. Proc.* **40**: 551, abstract #1829.
9. Kannan MS, **Agrawal DK** and Kannan L (1983): Presynaptic regulation of norepinephrine (NE) release in vascular smooth muscle. *The Pharmacologist* **25(3)**: 267, abstract #857.
10. **Agrawal DK** and Daniel EE (1983): Characterization of alpha-adrenoceptors in the plasma membrane vesicles prepared from rat mesenteric artery. *Fed. Proc.* **42**: 636, abstract #2016.
11. **Agrawal DK**, Triggler CR and Daniel EE (1983): Pharmacological properties of postsynaptic alpha-adrenoceptors in canine and rat mesenteric arteries. *Proc. Can. Fed. Biol. Soc.* June 1983.
12. Kannan MS and **Agrawal DK** (1983): Junctional and extra-junctional alpha-adrenoceptors in vascular smooth muscle. *Proc. Can. Fed. Biol. Soc.* June 1983.
13. **Agrawal DK** and Kannan MS (1983): Effect of calcium-channel blockers (CCBs) on agonist-induced contraction on isolated vascular smooth muscle. *The Pharmacologist* - **25(3)**:267, abstract #857.

14. **Agrawal DK** and Daniel EE (1984): Alpha-adrenoceptors in vascular smooth muscle and their role in hypertension. *Clin. & Invest. Med.* Vol.7 (suppl.2): 55.
15. **Agrawal DK** and Daniel EE (1984): Nature of postsynaptic alpha-adrenoceptors in rat mesenteric artery. Presented in the 10th scientific meeting of International society of hypertension, Interlaken, Switzerland, June 17-21, 1984.
16. **Agrawal DK** and Daniel EE (1984): Postsynaptic alpha-1 and alpha-2 adrenoceptors in the vascular smooth muscle of spontaneously hypertensive rats (SHR). *Fed. Proc.* 43(3):336, abstract #567.
17. **Agrawal DK** and Daniel E (1984): Alpha adrenoceptors in spontaneously hypertensive rat (SHR) vas deferens. *The Pharmacologist* 26(3):237, abstract #567.
18. Daniel EE and **Agrawal DK** (1984): Postsynaptic alpha-adrenoceptors in SHR resistance vessels. -presented in the Satellite symposium on resistance vessel abnormalities in hypertension at Sandbjerg, Manor Sonderborg, South Jutlana, Denmark, June 12-15, 1984.
19. **Agrawal DK** and Daniel EE (1984): Alpha- adrenoceptor agonists interaction with [³H]prazosin and [³H]yohimbine binding sites in rat mesenteric artery. Presented in IUPHAR 9th International congress of pharmacology, London, UK July 29- August 3, 1984.
20. Kannan MS, **Agrawal DK**, Seip AE and Kannan L (1984): Calcium pools in the contractions evoked by various agonists in the rat superior mesenteric artery. Proceedings of International Symposium on calcium entry blockers & tissue protection, Rome (Italy), March 1984.
21. Daniel EE, **Agrawal DK**, Grover AK and Jung CY (1985): Molecular size of alpha-1 and alpha-2 adrenoceptors in rat mesenteric artery (RMA) by radiation inactivation. *The Pharmacologist* 27(3): 143, Abstract # 191.
22. **Agrawal DK** and McNeill JH (1985): Vascular responsiveness to vasopressor agents in spontaneously diabetic and chemically induced diabetic rat mesenteric artery. *The Pharmacologist* 27(3): 142, Abstract # 185.
23. Rodrigues, B., **Agrawal, D.K.** and McNeill, J.H. (1985): Are elevated plasma lipids and diabetic cardiomyopathy related? *Fed. Proc.* 44(4): 1657, #7291.
24. **Agrawal, D.K.**, Bhimji, S. and McNeill, J.H. (1985): Increased vascular reactivity to agonists and prostaglandins in alloxan-treated diabetic rabbits. *Proc. Can. Fed. Biol. Soc.*, June 1985.
25. **Agrawal, D.K.**, Rodrigues, B. and McNeill, J.H. (1985): Arterial smooth muscle reactivity in control and STZ-induced diabetic SHR and WKY rats. *Fed. Proc.* 44(4):1100, abstract #4034.
26. **Agrawal, D.K.** and McNeill, J.H. (1986): Effect of prostaglandins E₁ and I₂ in vascular smooth muscle of alloxan-induced diabetic rabbits. *Fed. Proc.* 45(3): 424, abstract #1570.
27. Townley RG, Tamura N, Haisa S, Chang HS and **Agrawal DK** (1986): Identification and characterization of leukotriene (LT) C₄ receptors on a cultured smooth muscle cell line, BC3H-1. Proceedings of the Smooth Muscle Function symposium, XXX International Congress of the International Union of Physiological Sciences, Banff, Alberta, Canada, July 1-5, 1986, p.112.
28. Townley, R.G., **Agrawal, D.K.**, Rasmussen, J. and Fugate, M. (1986): Platelet-activating factor (PAF)-induced capillary permeability in mice. Proceedings of the 2nd International conference on PAF, Gatlinburg, Tennessee, USA, October 1986, p.154, abstract # 103.
29. **Agrawal, D.K.** and Townley, R.G. (1986): Platelet activating factor-induced downregulation of beta-adrenoceptors in human lung. Proceedings of the 2nd Int. conf. on PAF, Gatlinburg, Tenn., USA, Oct. 1986, p. 117, abstract # 30.
30. **Agrawal DK**, Byorth P and Townley RG: Effect of platelet-activating factor (PAF) on isoproterenol (Iso)-induced relaxation in the airways. *J Allergy & Clin Immunol.* 79: 171, 1987.

31. Tamura, N., **Agrawal, D.K.** and Townley, R.G.: Eosinophil (Eo) chemotaxis and leukotriene (LT) C₄ production in normal subjects. *J. Allergy & Clin. Immunol.* 79: 162, 1987.
32. Townley, R.G., Suliaman, F., **Agrawal, D.K.** and Fugate, M.: Platelet-activating factor (PAF) -induced capillary permeability in mice. *J. Allergy & Clin. Immunol.* 79: 172, 1987.
33. **Agrawal, D.K.** and Townley, R.G.: Effect of platelet-activating factor on human pulmonary beta-adrenoceptors. *Fed. Proc.* 46(3): 739, 1987; Abstract # 2470.
34. Townley, R.G., Fugate M, and **Agrawal, D.K.**: Interleukin-2 induced capillary leak syndrome (CLS) in mice. *Fed. Proc.* 46(4): 1510, 1987; Abstract # 6963.
35. **Agrawal DK** and Townley RG: BN 52021, a platelet activating factor (PAF) antagonist, protects the PAF-induced downregulation of beta-adrenoceptors in human lung. *Am. Rev. Respir. Dis.* 135: A162, 1987.
36. Bergren DR, **Agrawal DK** and Townley RG: Platelet-activating factor (PAF) antagonizes isoproterenol during methacholine (Mch)-induced bronchoconstriction. *Am Rev Respir Dis* 135: A162, 1987.
37. Tamura N, **Agrawal DK** and Townley RG: Effects of platelet activating factor (PAF) on eosinophil chemotaxis and leukotriene (LT) C₄ production in normal subjects. *Am Rev Respir Dis* 135: A161, 1987.
38. **Agrawal DK**, Bergren DR, Byorth PJ and Townley RG: Platelet activating factor (PAF) and airway hyperreactivity in guinea pigs. Proceedings of the Xth Int. Congress of Pharmacology meeting, Sydney, Australia, Aug 23-28, 1987.
39. Townley RG, Bewtra AK, Nair N, Hopp R and **Agrawal DK**: The role of calcium channel blockers in reactive airway disease. *Proc. Int. Symposium on Calcium Antagonists*, N.Y. Acad. Sci., New York, Feb 10-13, 1987, p.126.
40. Townley RG and **Agrawal DK**: Platelet-activating factor (PAF) effect on human and guinea pig bronchodilatation. *Proc. of the Chicago Lung Conference on Asthma*, Oct 8-9, 1987.
41. Townley RG, Tamura N and **Agrawal DK**: Role of eosinophil chemotactic factors on eosinophil activation. *Proc. 4th meeting on perspectives in asthma*, entitled "Eosinophils in Asthma", Lucerne, Switzerland, Dec.10/11, 1987, p. 13.
42. **Agrawal DK**, Townley TA, and Townley RG: Effect of platelet-activating factor (PAF) on theophylline (THEO)-induced relaxation in the airways. *J Allergy Clin Immunol* **81**: 240, 1988, abstract # 289.
43. Tamura, Naohiko, **Agrawal, Devendra K**, Nabe, Makoto and Townley, Robert G: Effects of eosinophil chemotactic factors on LTC₄ production from eosinophil. *J. Allergy Clin. Immunol.* **81**: 194, 1988, abstract # 104.
44. Koshino, Takeshi, **Agrawal, Devendra K.** and Townley, Robert G.: Effect of ketotifen (K) on the down-regulation of beta-adrenoceptors in guinea pig lung. *J. Allergy Clin. Immunol.* **81**: 276, 1988, abstract # 432.
45. Townley R, Hopp R, Bewtra A and **Agrawal DK**: Platelet activating factor (PAF) and human airway responses. *J. Allergy Clin. Immunol.* **81**: 246, 1988, abstract# 312.
46. **Agrawal DK**, Fugate MJ and Townley RG: Effect of platelet-activating factor (PAF) and leukotriene D₄ (LTD₄) receptor antagonists on interleukin-2 induced microvascular permeability. *Fed. Proc.* **2(4)**: A688, 1988, abstract# 2773.
47. Koshino T, **Agrawal DK**, and Townley RG: Effect of ketotifen on the down-regulation of beta-adrenoceptors in guinea pig lung (L) and spleen (S). *Am. Rev. Respir. Dis.* **137**: 27, 1988.
48. Tamura N, Nabe M, **Agrawal DK**, and Townley RG: Effects of eosinophil chemotactic factors on LTC₄ production from eosinophil. *Am. Rev. Respir. Dis.* **137**: 282, 1988.
49. Townley R, Hopp R, Bewtra A, and **Agrawal DK**: Human airway responses to platelet-activating factor (PAF). *Am. Rev. Respir. Dis.* **137**: 429, 1988.

50. **Agrawal DK**, Townley TA, Koshino T, Townley RG: Effect of ketotifen on beta-adrenergic responses in guinea pig airways. *Allergy Proc. of the XIII International Congress of Allergology & Clinical Immunology*, 16-21 October, 1988, Montreux, Switzerland, pp. 470, abst.#886.
51. **Agrawal DK**, Townley TA, and Townley RG: Platelet-activating factor (PAF) potentiates theophylline (THEO)-induced relaxation in guinea pig lung. *Allergy Proceedings of the XIII International Congress of Allergology & Clinical Immunology*, Oct 16-21, 1988, Montreux, Switzerland, pp.470, abstract # 887.
52. Nabe M, **Agrawal DK**, Sarmiento EU, Miyagawa H, and Townley RG: Inhibitory effect of terfenadine (TF) on mediator release from human blood basophils and eosinophils. *J. Allergy Clin. Immunol.* **83**: 281, 1989, Abstr.#437.
53. Miyagawa H, Sarmiento EU, **Agrawal DK**, Nabe M, and Townley RG: Effect of PAF-acether and calcium ionophore on the density of human blood eosinophils. *J Allergy Clin Immunol* **83**: 283, 1989, Abstr. # 445.
54. **Agrawal DK**, Cook J, Wells IC, Braquet PG, Townley RG: Effect of platelet-activating factor (PAF) on phosphatidylinositol (PI) metabolism in tracheal tissue. *J Allergy Clin Immunol* **83**: 285, 1989, Abstr. # 453.
55. **Agrawal DK**, Cook J, Wells IC, Braquet PG, and Townley RG: Platelet-activating factor (PAF) stimulates phosphatidylinositol (PI) metabolism in airway tissue. *Fed Proc* **3(3)**: A609, 1989.
56. Nabe M, **Agrawal DK**, Miyagawa H, and Townley RG: Histamine and LTC₄ release inhibition by terfenadine. *Am. Rev. Respir. Dis.* **139**: A63, 1989.
57. **Agrawal DK**, Townley TA, Koshino T, Townley RG: Terbutaline-induced tachyphylaxis to β -adrenergic agents in the airways is prevented by ketotifen. *Am Rev Respir Dis* **139**: A434, 1989.
58. Townley RG, Nabe M, **Agrawal DK**, Hopp RJ, Dave N, Grubbe R, Weber D, and Bewtra A: Effect of inhaled platelet activating factor on circulating neutrophils and total white blood cell count. *Am. Rev. Respir. Dis.* **139**: A508, 1989.
59. **Agrawal DK**, Sakowski H, Marcus JN, Braquet PG, and Townley RG: Identification and activation of platelet-activating factor-acether (PAF) receptors on human blood neutrophils and eosinophils. *Proc.3rd Int. Conf. on PAF, Tokyo, Japan, May 8-12, 1989*, page 140, abstract # I49.
60. **Agrawal DK**, Sarmiento EU, Marcus JN, and Townley RG: Platelet-activating factor receptors on human blood eosinophils and neutrophils. *Proc. XIVth Cong. of Eur. Acad. of Allergology and Clin. Immunol., Berlin (West), Sept 17-22, 1989; Allergologie* **12**: 59, 1989.
61. Nair N, Townley R, Hopp R, Bewtra A, **Agrawal DK**, Nabe M, and Grubbe R: Effect of platelet-activating factor on circulating neutrophils and white blood cell count. *Chest* **96(2)**: 253s, 1989.
62. Townley RG, Hopp R, Bewtra A, **Agrawal D**: The effect of platelet-activating factor on adrenergic responses. *Chest* **96(2)**: 179s, 1989.
63. Townley TA, **Agrawal DK**, Koshino T., and Townley RG: Effect of ketotifen on beta-adrenergic responses in guinea pig airways. *The Physiologist* **32(4)**: 161, 1989.
64. **Agrawal DK**, Marcus JN, and Townley RG: Increase in intracellular free calcium in response to platelet activating factor (PAF) in human blood neutrophils and eosinophils. *J Allergy Clin Immunol* **85**: 281, 1990.
65. Sugiyama H, Nabe M, Miyagawa H, **Agrawal DK**, and Townley RG: Inhibitory effect of ketotifen on LTC₄ release and eosinophil chemotaxis. *J Allergy Clin Immunol* **85**: 281, 1990.

66. Okada C, Miyagawa H, Nabe M, **Agrawal DK**, and Townley RG: Inhibitory effect of a selective platelet activating factor (PAF) receptor antagonist (WEB 2086) on PAF-induced eosinophil chemotaxis. *J Allergy Clin Immunol* **85**: 280, 1990.
67. Miyagawa H, Nabe M, Hopp RJ, **Agrawal DK**, Bewtra AK, and Townley RG: The effect of PAF inhalation on neutrophil chemotactic activity (NCA) and fibronectin (FN) in human blood. *J Allergy Clin Immunol* **85**: 187, 1990.
68. **Agrawal DK**, Bevering C, Marcus JN, and Townley RG: Effect of platelet activating factor (PAF) on protein kinase C and intracellular free calcium in human blood neutrophils and eosinophils. *Am Rev Respir Dis* **141(4)**: A216, 1990.
69. Okada C, Miyagawa H, Nabe M, **Agrawal DK**, and Townley RG: Effect of WEB 2086, a selective platelet activating factor receptor antagonist, on eosinophil chemotaxis. *Am Rev Respir Dis* **141(4)**: A219, 1990.
70. Miyagawa H, Nabe M, **Agrawal DK**, Sugiyama H, Okada C, and Townley RG: Density distribution and conversion of neutrophils by platelet activating factor (PAF) in normal and allergic subjects. *Am Rev Respir Dis* **141(4)**: A873, 1990.
71. Miyagawa H, Nabe M, Hopp RJ, **Agrawal DK**, Bewtra AK, and Townley RG: The elevation of neutrophil chemotactic activity (NCA) and fibronectin (FN) in human blood during PAF inhalation. *Am Rev Respir Dis* **141(4)**: A874, 1990.
72. Sugiyama H, Nabe M, Miyagawa H, **Agrawal DK**, and Townley RG: Effect of ketotifen on calcium ionophore induced LTC₄ release and platelet activating factor induced eosinophil chemotaxis. *Am Rev Respir Dis* **141(4)**: A874, 1990.
73. Wells IC and **Agrawal DK**: Decreased magnesium concentrations in erythrocyte ghosts in two rat models of hypertension. *The FASEB J.* **4(4)**: A1043, 1990; abstract # 4512.
74. **Agrawal DK**, Coonan K, Gordy C, and Townley RG: Effect of divalent cations on the specific binding of [³H] platelet-activating factor (PAF) in eosinophils. *The FASEB J.* **4(4)**: A 1215, 1990; abstract #5510.
75. **Agrawal DK**, Ali N, and Numao T: Platelet activating factor and guanine binding proteins in human blood eosinophils and neutrophil. Proc. of the Tokyo PAF symposium on allergic, respiratory and cardiovascular diseases, Tokyo, Japan, February 13-15, 1991, pp. 5-6.
76. **Agrawal DK**, Ali N, and Numao T: GTP-binding proteins (G-proteins) in human blood eosinophils: Platelet activating factor (PAF) receptor couples to Gi protein. *J Allergy Clin Immunol* **87**: 347, 1991.
77. Ali N and **Agrawal DK**: Modulation of G-proteins and platelet-activating factor (PAF) during differentiation of U937 cells: Role of protein kinase C and tyrosine kinase. *J. Allergy Clin Immunol* **87**: 164, 1991.
78. Dowling P, Hopp RJ, Townley RG, **Agrawal DK**, Nair N, and Bewtra AK: The effect of terfenadine on the bronchoconstriction, dermal response and leukopenia induced by platelet-activating factor. *J. Allergy Clin Immunol* **87**: 256, 1991.
79. Ali N, Cheung P, Dowd F, and **Agrawal DK**: Identification of G-proteins in rat parotid gland plasma membrane and secretory granules: distinct components present in granule membranes. *The FASEB J.* **5(5)**: A1067, 1991, abstract # 4043.
80. **Agrawal DK** and Ali N: Signal transduction phenomenon during differentiation of U937 cells is regulated by tyrosine kinase and protein kinase C. *The FASEB J.* **5(5)**: A1339, 1991, abstract # 5615.
81. **Agrawal DK** and Ali N: Guanine nucleotide regulatory proteins (G-proteins) in human blood eosinophils and neutrophils. *Am Rev Respir Dis* **143**: A230, 1991.
82. Numao T, **Agrawal DK**, and Bewtra AK: Modulation of eosinophil chemotaxis by neuropeptides. *Am Rev Respir Dis* **143**: A618, 1991.

83. Dowling P, Hopp RJ, Townley RG, **Agrawal DK** and Bewtra AK: The effect of terfenadine on the bronchoconstriction, dermal response, and leukopenia induced by platelet-activating factor. *Am. Rev. Respir Dis.* **143**: A155, 1991.
84. **Agrawal DK**, and Ali N: Effect of genistein on the expression of G-proteins and PAF receptors during differentiation of U937 cells. *Allergy & Clinical Immunology News Suppl.* **1**: 123, 1991.
85. Numao T and **Agrawal DK**: Effect of neuropeptides on PAF-induced eosinophil chemotaxis in allergic subjects. *Allergy & Clinical Immunology News Suppl.* **1**: 128, 1991.
86. Ali N, Numao T, and **Agrawal DK**: Coupling of PAF receptors to 'G_i-like' proteins in human blood eosinophils. *Allergy & Clin. Immunol. News Suppl.* **1**: 143, 1991.
87. **Agrawal DK**, Numao T, Shoupe TS, and Gale DD: PF10042: A novel LTB₄ receptor antagonist and its effect on neutrophil, eosinophil and monocyte functions. *J Allergy Clin Immunol* **89**: 236, 1992, abstract #365.
88. Abebe W, Ali N and **Agrawal DK**: Increased expression of platelet-activating factor (PAF) receptors, tyrosine phosphorylation and inositol trisphosphate (IP₃) in differentiated U937 cells: Role of tyrosine kinase. *J Allergy Clin Immunol* **89**: 164, 1992, abstract #78.
89. Numao T, Ali N and **Agrawal DK**: High molecular weight GTP-binding proteins in human blood eosinophils: Modulation by platelet-activating factor. *J Allergy Clin Immunol* **89**: 294, 1992, abstract #600.
90. Abebe W and **Agrawal DK**: Identification of G-proteins in rat blood vessels. *The FASEB Journal* **6(5)**: A1777, 1992; abstract #2007.
91. **Agrawal DK** and Ali N: Liver microsomes contain multiples forms of inositol 1,4,5-trisphosphate binding proteins: identification by nitrocellulose blot overlay. *The FASEB Journal* **6(5)**: A1283, 1992; abstract #2007.
92. **Agrawal DK**, Ali N and Abebe W: Activation of platelet-activating factor (PAF) receptors induces tyrosine phosphorylation and inositol trisphosphate (IP₃) formation in differentiated U937 cells. *Am Rev Respir Dis*, **145**: A293, 1992.
93. **Agrawal DK**, Numao T and Ali N: Platelet activating factor (PAF) increased the expression of high molecular weight G-proteins and tyrosine phosphorylation in human blood eosinophils. *Am Rev Respir Dis* **145**: A293, 1992.
94. **Agrawal DK** and Joshi SD: Evidence for involvement of tyrosine phosphorylation in methacholine-induced contraction in guinea pig trachea. *The Pharmacologist* **34**: 202, 1992; Abstract #362.
95. Joshi SD and **Agrawal DK**: Identification of G-proteins in tracheal smooth muscle. *The Pharmacologist* **34**: 203, 1992; abstract #363.
96. **Agrawal DK** and Numao T: Priming effect of neuropeptides on PAF and LTB₄-induced eosinophil chemotaxis in allergic subjects. *Proceedings of the 4th Int. Congress on PAF and related Lipid Mediators*, Snow Bird, Utah, Sept. 22-26, 1992.
97. **Agrawal DK**, Ali N, and Abebe W: Increased expression and activity of PAF receptors in differentiated U937 cells is mediated by tyrosine phosphorylation. *Proceedings of the 4th Int. Congress on PAF and related lipid mediators*, Snow Bird, Utah, Sept. 22-26, 1992.
98. Numao T, Fukuda T, Makino S, and **Agrawal DK**: Neuropeptides enhance eosinophil chemotaxis response. *Japanese J Allergology* **41**: 1195, 1992.
99. Numao T, Makino S, and **Agrawal DK**: Photoreactive GTP-binding proteins of eosinophils: relationship with chemotactic factors. *Japanese J Allergology* **41**: 1245, 1992.
100. **Agrawal DK**, Numao T, Shoupe TS, and Gale DD: PF 5901: A dual antagonist of 5-lipoxygenase and LTB₄ receptors inhibits neutrophil, eosinophil, monocyte and lymphocyte functions. *J Allergy Clin Immunol* **91**: 214, 1993; abstract #294.

101. **Agrawal DK**, Takami M, and Ono S: DP-1904: A novel thromboxane A₂ (TXA₂) synthetase inhibitor attenuates the effect of inflammatory mediators in human monocytes and lymphocytes. *Am Rev Respir Dis* **147(4)**: A448, 1993.
102. Numao T, Fukuda T, Fukushima Y, Makino S, and **Agrawal DK**: Influence of eosinophil separation using immunomagnetic beads on cell function. *Am Rev Respir Dis* **147(4)**:A817, 1993.
103. Cavallari N, Abebe W, Hunter WJ, **Agrawal DK**, Mingoli A, Edwards JD: Short-term preservation of autogenous vein grafts: Effectiveness of University of Wisconsin solution. *Eur Surgical Res* **25(Suppl. 2)**: 19, 1993.
104. **Agrawal DK**, McGregor PE, Edwards JD: Effect of endothelin-1 on arterial response to Bay K 8644: A comparison of ischemic and non-ischemic arteries. *The FASEB J* **8(5)**: A616, 1994.
105. Thorpe PE, Hunter WJ, **Agrawal DK**, Dovgan PS, Zhan XX, Edwards JD: A non-injury, diet-induced animal model with coronary atherosclerosis ideal for vascular-interventional research. *The FASEB J* **8(5)**: A403, 1994.
106. McGregor PE, **Agrawal DK**, Edwards JD: Differential effects of peptides on the adherence of white blood cells to endothelial cell monolayers. *The FASEB J* **8(5)**: A323, 1994.
107. Edwards JD, McGregor PE, **Agrawal DK**: Attenuation of human leukocyte adherence to endothelial cell monolayers by tyrosine kinase inhibitors. *The FASEB J* **8(5)**: A324, 1994.
108. **Agrawal DK**, Takami M, Ono S: A novel thromboxane synthetase inhibitor, DP 1904, inhibits human blood eosinophil degranulation. *Am J Respir and Critical Care Med* **149(4)**: A112, 1994.
109. Dovgan PS, Edwards JD, Wilde M, Zhan XX, **Agrawal DK**: Transforming growth factor-beta enhances the adherence of white blood cells to endothelial cells. 40th Annual Colter Surgical Society Meeting, Ann Arbor Michigan, Oct 8, 1994.
110. Dovgan PS, Edwards JD, Rowley JM, Adrian TE, **Agrawal DK**: Effects of ischemia and reperfusion on vasoactive neuropeptide levels in the canine infrarenal aortic revascularization model. Presented at the Society of Vascular Surgery/International Society of Cardiovascular Surgery, Seattle, WA, June 7-10, 1994.
111. Chisholm L, Dovgan PS, **Agrawal DK**, Edwards JD: Modulation of leukocyte adherence to endothelial cells by endothelin-1: Involvement of Src and JAK1-like kinases. Presented at the Research Forum of the Annual meeting of the Society for Vascular Surgery/North Am Chapter Int. Society for Cardiovascular Surgery, June 10-14, 1995, New Orleans, LO.
112. Dovgan PS, **Agrawal DK**, Edwards JD: Effect of transforming growth factor-beta on leukocyte adherence to endothelial cells. 22nd World Congress of the International Society for Vascular and Cardiovascular Surgery, Kyoto, Japan, September 10-15, 1995; *Cardiovasc Surgery* **3(suppl.1)**: 26, 1995, abst.# 5.12.
113. **Agrawal DK**: Platelet-activating factor (PAF)-induced eosinophil degranulation requires tyrosine phosphorylation. 1996 International Conference of the American Academy of Allergy Asthma & Immunology, New Orleans, LO, March 15-20, 1996; *J Allergy Clin Immunol* **97(1)**: 311, 1996.
114. **Agrawal DK**, Kroettinger A, Townley RG: Effect of substance P (SP) on superoxide anion release from eosinophils on allergic subjects. 1996 International Conference of the American Thoracic Society, New Orleans, LO, May 11-15, 1996; **153(4)**: A201, 1996.
115. Thorpe P, Zhan XX, **Agrawal DK**, Hunter WJ, Dovgan PS, Farb A, Virmani R: A controlled comparative morphologic study of rotational atherectomy with balloon angioplasty in Yucatan microswine with identical iliac atherosclerotic lesions. *Experimental Biology '96* Apr 14-17, 1996, Washington, DC; *FASEB J* **10(3)**: A615, 1996.

116. Zhan XX, Thorpe P, Dovgan PS, **Agrawal DK**, WJ Hunter, Farb A, Virmani R: Can repeated balloon injuries and longer cholesterol feeding increase the percent stenosis by atherosclerotic plaques in Yucatan microswine? Experimental Biology '96 Apr 14-17, 1996, Washington, DC; *FASEB J* **10(3)**: A619, 1996.
117. Thorpe PE, Hunter DW, Chouinard P, **Agrawal DK**, Zhan XX: Comparison of transmitted pressure across percutaneous abdominal aorta aneurysm conduits: A new *in vitro* model. Experimental Biology '96 Apr 14-17, 1996, Washington, DC; *FASEB J* **10(3)**: A610, 1996.
118. Balaram S, **Agrawal DK**, Bishop JW, Edwards JD: Expression of cell adhesion molecules in peripheral vascular disease patients. Annual meeting of the Society for Vascular Surgery/North American Chapter Int. Society for Cardiovascular Surgery, June, 1996.
119. Burd T, Pai J, Ramachandran J, Balaram S, **Agrawal DK**, Kuszynski CA, Pirruccello S, Edwards JD: Expression of integrins in the purified monocytes of smoking and non-smoking subjects. Annual meeting of the Society for Vascular Surgery/North American Chapter International Society for Cardiovascular Surgery, June 1996.
120. Balaram S, **Agrawal DK**, Edwards JD: Insulin-like growth factor-1 and peripheral vascular diseases. Annual meeting of the Midwest Vascular Society, St. Louis, MO, September 1996.
121. Balaram S, **Agrawal DK**, Edwards JD: Cell adhesion molecules and peripheral vascular diseases. Proceedings of the annual meeting of the Frederick Collier Society, Colorado Springs, CO, October 3-6, 1996.
122. **Agrawal DK**, Ishikawa C, Chatham T, Kiboneka A, Townley RG: Attenuation of eosinophil adhesion to airway epithelial cells by terfenadine. Present at the 1997 annual meeting of the Amer Acad Allergy Asthma Immunology, San Francisco, CA in February, 1997; *J Allergy Clin Immunol* **99(1)**: S358, 1997.
123. Zhan XX, **Agrawal DK**, Thorpe PE: Effect of iodinated contrast media on neutrophil adherence to cultured endothelial cells. Presented at the 22nd annual meeting of the Society of Cardiovascular and Interventional Radiology, March 8-13, 1997, Washington, DC; *J Vascular Interventional Radiology* **8(1 Suppl.)**: 177, 1997.
124. **Agrawal DK**, Ishikawa C, Chatham T, Townley RG: Terfenadine attenuates ICAM-1 expression in human lung epithelial cell line. Presented at the 1997 International conference of the American Thoracic Society, to be held in San Francisco, CA, 16-21 May 1997; *Am J Respir Critical Care Medicine* **155**: A888, 1997.
125. Chong BTY, **Agrawal DK**, Romero T, Townley RG: Measurement of bronchoconstriction from the whole-body plethysmograph: Comparison of freely moving vs. strained guinea pigs". Presented at the 1997 Int conference of the Am. Thoracic Society, to be held in San Francisco, CA, 16-21 May 1997; *Am J Respir Critical Care Medicine* **155**: A159, 1997.
125. Kojima DAK, **Agrawal DK**, Townley RG: Terfenadine prevents isoproterenol-induced desensitization of beta-adrenoceptor function in guinea pig trachealis. Presented at the 1997 Int. Conference of the American Thoracic Society, San Francisco, CA, 16-21 May 1997. *Am J Respir Critical Care Medicine* **155**: A162, 1997.
126. Kimura G, **Agrawal DK**, Crocker IC, Townley RG: A comparison of tumor necrosis factor- α (TNF- α) and interleukin-10 (IL-10) secretion by U937 cells and freshly isolated human blood monocytes. Submitted for presentation at the International Congress of Allergy and Clinical Immunology, to be held in Cancun, Mexico, October 1997.
127. Chong BTY, **Agrawal DK**, Romero FA, Townley RG: Desensitization of isoproterenol-induced relaxation in guinea pig airways. Submitted to present at the Annual meeting of the Am Academy of Allergy Asthma & Immunology, Washington, DC, March 1998.

128. Kimura G, **Agrawal DK**, Townley RG: Kinetics and conditions for cytokine release from human monocytic cell line, U937. Submitted to present at the 1998 Annual meeting of the Am Academy of Allergy Asthma and Immunology, Washington, DC, March 1998.
129. Romero FA, **Agrawal DK**, Bewtra AK, Townley RG: The effect of L-NAME &/or Superoxide Dismutase (SOD) on airway reactivity and airway inflammation in ovalbumin (OA) sensitized guinea pigs (GP). Submitted to present at the 1998 Annual meeting of the Am Academy of Allergy Asthma and Immunology, Washington, DC, March 1998.
130. Kimura G, **Agrawal DK**, Townley RG: Preculture conditions for cytokine release from human monocytic cell line, U937. Submitted to present at the 1998 Annual meeting of the American Thoracic Society, Chicago, IL, May 1998.
131. Balaram SK, **Agrawal DK**, Edwards JD: Insulin-like growth factor-1 activates nuclear factor kappa B and increases transcription of ICAM-1 gene in endothelial cells. Presented at the annual meeting of the Society of Vascular Surgery, June,1997.
132. Balaram SK, **Agrawal DK**, Edwards JD: Regulation of ICAM-1 gene and NF-kappa B via tyrosine kinases in endothelial cells. Presented at the International Conference of the Cardiovascular and Thoracic Surgery, held in London, England, October 1997.
133. Chong BTY, **Agrawal DK**, Romero FA, Townley RG: Desensitization of isoproterenol-induced relaxation in guinea pig airways. Presented at the 1998 Annual meeting of the Am Academy of Allergy Asthma and Immunology, Washington, DC, March 1998; J Allergy Clin Immunol **101**: S114, 1998.
134. Kimura G, **Agrawal DK**, Townley RG: Kinetics and conditions for cytokine release from human monocytic cell line, U937. Presented at the 1998 Annual meeting of the Am Academy of Allergy Asthma and Immunology, Washington, DC, March 1998; J Allergy Clin Immunol **101**: S19, 1998.
135. Romero FA, **Agrawal DK**, Bewtra AK, Townley RG: The effect of L-NAME &/or Superoxide Dismutase (SOD) on airway reactivity and airway inflammation in ovalbumin (OA) sensitized guinea pigs (GP). Presented at the 1998 Annual meeting of the Am Academy of Allergy Asthma and Immunology, Washington, DC, March 1998; J Allergy and Clin Immunol **101**: S37, 1998.
136. Kimura G, **Agrawal DK**, Townley RG: Pre-culture conditions for cytokine release from human monocytic cell line, U937. Submitted to present at the 1998 Annual meeting of the American Thoracic Society, Chicago, IL, April 1998; Am J Respir Crit Care Med **157**(3); A439, 1998.
137. Pai J, Knoop FC, Hunter WJ, **Agrawal DK**: Detection of *Chlamydia pneumoniae* in occlusive vascular tissue. Presented at the 1998 Experimental Biology meeting to be held in San Francisco, CA in April 1998.
138. Allen RT, Kuszynski CA, Hunter WJ, **Agrawal DK**: Involvement of protein kinase C epsilon (PKC- ϵ) in the survival effects of insulin-like growth factor-1 (IGF-1) in human vascular smooth muscle cells (VSMCs). Presented at the 1998 Experimental Biology meeting to be held in San Francisco, CA in April 1998.
139. Allen RT, Kuszynski CA, Hunter WJ, **Agrawal DK**: Involvement of protein kinase C epsilon (PKC- ϵ) in the survival effects of insulin-like growth factor-1 (IGF-1) in human vascular smooth muscle cells (VSMCs). Presented at the Midwest Student Biomedical Research Forum, Omaha, NE, February 1998.
140. Allen RT, Pai J, Bovard K, Hunter WJ, **Agrawal DK**: Immunogold staining for Bcl-xL and morphological analysis of rat and human vascular smooth muscle cells undergoing apoptosis by c-Myc or staurosporine. Presented at the SCANNING 98 meeting in Bethesda, MD, in May 1998.

141. Allen RT, Hentges P, Dean N, **Agrawal DK**: Sustained activation of ERK1/2 and inhibition of JNK/SAPK by IGF-1 during staurosporine-induced apoptosis of human vascular smooth muscle cells: possible involvement of protein kinase-C epsilon in activation of ERKs by IGF-1. Presented at the 1998 ASBMB Fall Symposia on Protein Kinase C and Cellular Function, October 9-12, 1998, Granlibakken, Lake Tahoe, CA, abstract #70.
142. Hopfenspirger M, **Agrawal DK**, Parr S, Romero FA, Hopp RJ, Biehle J, Townley RG: Effect of *Bacillus Calmette-Guerin* (BCG) in a mouse model of bronchial asthma. *J Allergy Clin Immunol* **103**: S59, 1999.
143. **Agrawal DK**, Hentges PP, Ariyaratna, Allen RT, Townley RG: Protein kinase C (PKC) isozymes in purified CD3+ and CD4+ cells of allergic and asthmatic subjects. *J Allergy Clin Immunol* **103**: S206, 1999.
144. Chong BTY, **Agrawal DK**, Romero FA, Townley RG: An in vivo model of beta-adrenoceptor desensitization. *J Allergy Clin Immunol* **103**: S205, 1999.
145. Hopfenspirger M, **Agrawal DK**, Parr S, Romero FA, Hopp RJ, Biehle J, Townley RG: Attenuation of airway inflammation and increase in interleukin-12 by *Bacillus Calmette-Guerin* (BCG) in a mouse model of bronchial asthma. *Am J Respir Critical Care Medicine* **159**(3): A115, 1999.
146. **Agrawal DK**, Romero FA, Townley RG: A murine allergic model of allergic late phase response, airway hyperresponsiveness and BAL eosinophilia. *Am J Respir Critical Care Medicine* **159**(3): A113, 1999.
147. **Agrawal DK**, Hopfenspirger M, Romero FA, Hopp RJ, Townley RG: : Effect of Mycobacterium vaccae in a mouse model of bronchial asthma. *Am J Respir Critical Care Medicine* **159**(3): A115, 1999.
148. **Agrawal DK**, Hopfenspirger MT, Hopp RJ, Townley RG: Mycobacterial antigens prevent airway hyperresponsiveness and eosinophilia in a mouse model of bronchial asthma. Presented at the "Asthma '99 Theory to Treatment" meeting, held in Honolulu, Hawaii, April 30-May 3, 1999.
149. Allen RT, Krueger K, **Agrawal DK**: Insulin-like growth factor-1 mediated survival and stress kinase inhibition signals diverge downstream of phosphatidylinositol 3-kinase in vascular smooth muscle cells. *Circulation* **100**(18): I-283, 1999.
150. **Agrawal DK**, Berro A, Kreutner W, Townley RG: Anti-inflammatory properties of desloratadine: Effect on eosinophil chemotaxis, adhesion and release of superoxide anions. *J Allergy Clin Immunol* **105**: S16, 2000.
151. Hopfenspirger MT, Parr SK, Townley RG, **Agrawal DK**: Intranasal administration of BCG is more effective than intraperitoneal administration in attenuating airway hyperresponsiveness in a mouse model of asthma. *J Allergy Clin Immunol* **105**: S 282, 2000.
152. Kim MH, **Agrawal DK**, Townley RG: Effect of cytokines on the expression of G-proteins in lymphocytes of atopic asthmatic subjects. *J Allergy Clin Immunol* **105**: S 299, 2000.
153. **Agrawal DK**, Clark KC, Townley RG: Differential effects of albuterol enantiomers on pulmonary functions and bronchoalveolar lavage (BAL) eosinophilia. *A. J Respir Crit Care Med* **161**(3): A191, 2000.
154. **Agrawal DK**, Suwaki T, Townley RG: Modification of eosinophil function by suplatast tosilate (IPD), a new type of anti-allergic drug. *J Respir Crit Care Med* **161**(3): A540, 2000.
155. **Agrawal DK**, Berro A, Townley RG: Desloratadine attenuation of eosinophil chemotaxis, adhesion, and superoxide generation. *Allergy* **55** (suppl 63): 276, 2000.
156. **Agrawal DK**, Suwaki T, Townley RG: Anti-inflammatory properties of suplatast tosilate (IPD): attenuation of eosinophil chemotaxis and adhesion. *Allergy & Clinical Immunology International*, Supplement 2: 7, 2000.

157. Berro AI, **Agrawal DK**: Potential role of PKC- δ and PKC- ϵ in the increased survival of human eosinophils. *J Allergy Clin Immunol* 107: S35, 2001.
158. Horiba M, Ishikawa C, **Agrawal DK**, Townley RG: Effect of IL-1 β on airway responsiveness in a mouse model. *J Allergy Clin Immunol* 107: S38, 2001.
159. Hopfenspirger MT, Haynatzki GR, **Agrawal DK**: Meta-analysis of common sensitization procedures in the mouse model of asthma. *J Allergy Clin Immunol* 107: S48, 2001.
160. **Agrawal DK**: Protective effect of (RR)-Formoterol in early and late allergic response and airway hyperresponsiveness in a mouse model of asthma. *Am J Respir Crit Care Med* 163(5): A590, 2001.
161. Horiba M, **Agrawal DK**, Townley RG: Effect of IL-1 β and TNF α on airway responsiveness in a mouse model. *Am J Respir Crit Care Med* 163(5): A867, 2001.
162. **Agrawal DK**, Hopfenspirger MT, Chavez J, Talmadge JE: Flt3-Ligand: a novel immunomodulator in the treatment of bronchial asthma. *J Allergy Clin Immunol* 109(1): #64, 2002.
163. Hopfenspirger MT and **Agrawal DK**: Airway hyperresponsiveness, late allergic response and eosinophilia are reversed with mycobacterial antigens in antigen pre-sensitized mice. *J Allergy Clin Immunol* 109(1): S30, 2002.
164. Edwan JH, Chavez J, Talmadge JE, Casale TB, **Agrawal DK**: Therapeutic resolution of late allergic response and airway hyperresponsiveness by Flt3-ligand in a mouse model of allergic inflammation. *J Allergy Clin Immunol* 109(1): S24, 2002.
165. Berro AI and **Agrawal DK**: CD30 expression and apoptosis in human blood eosinophils. *J Allergy Clin Immunol* 109(1): S229, 2002.
166. Hopp RJ, Sueiro R, Romero T, **Agrawal DK**, Townley RG: Will BCG immunization affect the clinical expression of an established asthmatic? *J Allergy Clin Immunol* 109(1): p. S204, 2002.
167. **Agrawal DK** and Dhume A: Oxidative stress-induced apoptosis in human coronary smooth muscle cells involves K⁺ channels. Presented at the 1st International conference on NAD(P)H oxidases, held in Rauischholzhausen Castle, Germany, April 30-May 3, 2002.
168. **Agrawal DK**: Detrimental effect of (SS)-Formoterol and (S)-Albuterol is due to an increase in Gi- α 1 and Gi- α 3 proteins and activation of NF- κ B in human airway smooth muscle cells. *Am J Respiratory and Critical Care Medicine* 165(8): A317, 2002.
169. Soundararajan K, Dhume AS and **Agrawal DK**: Comparison of vascular smooth muscle cell apoptosis and fibrous cap morphology in atheromatous plaques from symptomatic and asymptomatic carotid disease. Presented at the Peripheral Vascular Surgery Society 27th Annual Spring Meeting, June 8, 2002, Boston, MA.
170. **Agrawal DK** and Berro AI: Effect of desloratadine on the apoptosis of human blood eosinophils. 60th Annual Meeting of the American College of Allergy, Asthma and Immunology, November 15-20, 2002, San Antonio, TX - an oral presentation.
171. Kim MJ and **Agrawal DK**: Activation of voltage-gated chloride channels by cytokines in human blood monocytes. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, held in Denver, March 7-12, 2003; *J Allergy Clin Immunol* 111(3): S301, 2003 (abstract # 929).
172. Berro AI and **Agrawal DK**: CD30 expression and apoptosis of human blood eosinophils. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, held in Denver, March 7-12, 2003; *J Allergy Clin Immunol* 111(3): S308, 2003 (abstract #957).
173. Edwan J and **Agrawal DK**: Effect of FLT3-Ligand Treatment on BALF of Ova sensitized and challenged mice Presented at the annual meeting of the American Academy of Allergy,

Asthma and Immunology, held in Denver, March 7-12, 2003; *J Allergy Clin Immunol* 111(3): S302, 2003 (abstract #931).

174. **Agrawal DK**, Edwan J, Kandimalla ER, Yu D, Agrawal S: Novel immunomodulatory oligonucleotides (IMOs) prevent development of allergic airway inflammation and airway hyperresponsiveness in asthma. *Allergy & Clinical Immunology International Suppl* 1, 33, 2003.
175. **Agrawal DK**, Edwan J, Kandimalla ER, Yu D, Agrawal S: Reversal of Allergic Airway Inflammation and Airway Hyperresponsiveness by Second-Generation Immunomodulatory Oligonucleotide Agents containing Novel RpG Motifs. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, to be held in San Francisco, CA, March 19-22, 2004; *J Allergy Clin Immunol* 113(2): S218, 2004 (abstract #772).
176. Kandimalla ER, Edwan J, Yu D, Zhu F-G, Agrawal S, **Agrawal DK**: HYB 2055 – A Second-Generation Immunomodulatory Oligonucleotide Agent containing CpR motifs Potently Reverses Allergic Airway Inflammation and Airway Hyperresponsiveness in Mouse Models of Established Asthma. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, to be held in San Francisco, CA, March 19-22, 2004; *J Allergy Clin Immunol* 113(2): S219, 2004 (abstract # 774).
177. Berro AI and **Agrawal DK**: Interleukin-5 (IL-5) and fetal bovine serum (FBS) induce down-regulation of CD30 surface expression but not mRNA expression in human blood eosinophils. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, to be held in San Francisco, CA, March 19-22, 2004; *J Allergy Clin Immunol* 113(2): S168, 2004 (abstract # 572).
178. Cheng G, Kim M, Berro AI, **Agrawal DK**: Effect of suplatast tosilate (IPD) on chloride currents in human blood eosinophils. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, to be held in San Francisco, CA, March 19-22, 2004; *J Allergy Clin Immunol* 113(2): S172, 2004 (abstract # 588).
179. Edwan JH and **Agrawal DK**: Treatment with Flt3-ligand secreting plasmid reverses allergic airway inflammation in asthma. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, to be held in San Francisco, CA, March 19-22, 2004; *J Allergy Clin Immunol* 113(2): S323, 2004 (abstract # 1195).
180. **Agrawal DK**, Kelbe PW: (S)-Albuterol activates pro-constrictory and inflammatory pathways in human bronchial smooth muscle cells. *Am J Respir Crit Care Med* 169(7): A860, 2004. Presented at the International Conference of American Thoracic Society in May 2004 in Orlando, FL.
181. **Agrawal DK**, Kelbe PW: (S)-Albuterol binds to intracellular organelles and proteins in human airway smooth muscle cells. *Am J Respir Crit Care Med* 169(7): A310, 2004. Presented at the International Conference of American Thoracic Society in May 2004 in Orlando, FL.
182. **Agrawal DK**, Jehad Edwan, ER Kandimalla, Fu-Gang Zhu, Dong Yu, S Agrawal: Novel second-generation immunomodulatory oligonucleotides reverse allergic airway inflammation and airway hyperresponsiveness in mouse model of established asthma. Presented in the Oral session at the Asian-Pacific Congress of Allergology & Clinical Immunology, Tokyo, Japan in October 2004.
183. **Agrawal DK**, Gang Cheng, SK Agarwal, S Savithri: Preventive Effect of OCID1001 on Allergic Airway Inflammation and Airway Hyperresponsiveness in Mouse and Guinea Pig Models of Asthma. Presented in the Oral session at the 2004 American College of Allergy, Asthma and Immunology meeting in Boston, MA on November 15, 2004.

184. **Agrawal DK**, Jehad Edwan, ER Kandimalla, Fu-Gang Zhu, Dong Yu, S Agrawal: Second-generation immunomodulatory oligonucleotides induce potent Th1 immune responses and decreases OVA-induced allergic airway inflammation and airway hyperresponsiveness in a mouse model of established asthma. Presented at the American College of Allergy, Asthma and Immunology meeting in Boston, MA on November 15, 2004.
185. **Agrawal DK**, Soundararajan K, Rakesh K: IGF-1 Receptors in the Plaques of Symptomatic and Asymptomatic Patients with Carotid Stenosis. Presented at the American Heart Association 2004 Annual meeting in New Orleans, LO.
186. Edwan JH, Talmadge JE, **Agrawal DK**: Prolonged effect of Flt3-L plasmid to protect against allergic airway inflammation and airway hyperresponsiveness. *J Allergy Clin Immunol* 115(2): S64, 2005.
187. **Agrawal DK**, Edwan J, Zhu F, Yu D, Kandimalla ER, Agrawal S: Sustained long-term effect of a novel immunomodulatory oligonucleotide on airway hyperresponsiveness in a mouse model of allergic airway inflammation. *J Allergy Clin Immunol* 115(2): S134, 2005.
188. Berro AI, Bharadwaj A, **Agrawal DK**: Rottlerin induces apoptosis of human blood eosinophils: a possible role for PKC-delta in mediating eosinophil survival. *J Allergy Clin Immunol* 115(2): S193, 2005.
189. Bharadwaj AS, Edwan JH, Kurz S, Talmadge JE, **Agrawal DK**: Flt3L attenuates allergic airway inflammation and airway hyperresponsiveness by increasing regulatory T cells. *J Allergy Clin Immunol* 115(2): S256, 2005.
190. Barone LM, Ameredes BT, Calhoun WJ, **Agrawal DK**: Effect of racemic albuterol (Rac-alb), (R)-albuterol (R-alb), and (S)-albuterol (S-alb) on inflammatory variables in human airway smooth muscle cells. Presented at North-East Smooth Muscle Society, October 28-29, 2005, Sherbrooke, Quebec, Canada.
191. Berro AI, **Agrawal DK**: CD30-induced apoptosis of human blood eosinophils is mediated by nitric oxide production and JNK pathway activation. *J Allergy Clin Immunol* 117(2): S58, 2006.
192. Cheng G, Kim M, **Agrawal DK**: TGF-beta and volume-regulated chloride channel in the apoptosis of human airway epithelial cells. *J Allergy Clin Immunol* 117(2): S88, 2006.
193. **Agrawal DK**, Cheng G, Kelbe PW: Masking of corticosteroid-induced inhibition of NF-kB activation by (S)-albuterol in human airway smooth muscle cells and human blood lymphocytes. *J Allergy Clin Immunol* 117(2): S140, 2006.
194. Edwan JH, **Agrawal DK**: Therapeutic effect of Flt3-ligand in cockroach antigen induced allergic airway inflammation and airway hyperresponsiveness. *J Allergy Clin Immunol* 117(2): S150, 2006.
195. McGee HS, **Agrawal DK**: Foxp3 Tr1 regulatory T cells as a therapeutic antidote in reversing cockroach-induced asthma. *J Allergy Clin Immunol* 117(2): S241, 2006.
196. Bharadwaj AS, **Agrawal DK**: Flt3L treatment increases tolerogenic semimature dendritic cells in the lungs of asthmatic mice. *J Allergy Clin Immunol* 117(2): S245 2006.
197. Chaudhari B, Cheng G, **Agrawal DK**: Involvement of TRAIL in transforming growth factor-beta induced apoptosis of human airway epithelial cells. *J Allergy Clin Immunol* 117(2): S254, 2006.
198. **Agrawal DK**, Cheng G, Kelbe PW, Bakale R: Class-specific effect of the enantiomers of beta-2 agonists on the activation of NF-kB in human airway smooth muscle cells. *Am J Respir Crit Care Med* April 2006. Presented at the International Conference of American Thoracic Society in May 2006 in San Diego, CA.

199. **Agrawal DK**, Kim M-J, Kelbe PW, Bakale R: Class specificity of the binding of [³H](S)-albuterol in human airway smooth muscle cells. *Am J Respir Crit Care Med* April 2006. Presented at the International Conference of American Thoracic Society in May 2006 in San Diego, CA.
200. Cheng G, Kelbe PW, **Agrawal DK**: Induction of NF- κ B activity and masking of the beneficial effects of corticosteroids by (S)-albuterol in human airway smooth muscle cells. *Am J Respir Crit Care Med* April 2006. Presented at the International Conference of American Thoracic Society in May 2006 in San Diego, CA.
201. Rakesh K, Cheng G, Yang J, **Agrawal DK**: Overexpression of SOCS3 negatively regulates STAT3 activation and attenuates IGF-1-mediated human coronary artery smooth muscle cell proliferation. Presented at the annual meeting of the American Heart Association November 2006 in Chicago, IL. *Circulation* 114(18): II-325, 2006; Abstract #1670.
202. Makinde TO, **Agrawal DK**: Effect of inflammatory cytokines on the expression of Tie-2 receptors in structural cells of the lung. *J Allergy Clin Immunol* 119(1): S129, 2007. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Diego, CA February 22-27, 2007.
203. Arumugham AR, **Agrawal DK**: Volume-regulated chloride channel-3 in PDGF-induced proliferation of human bronchial smooth muscle cells. *J Allergy Clin Immunol* 119(1): S131, 2007. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Diego, CA February 22-27, 2007.
204. McGee HS, Yagita H, **Agrawal DK**: Programmed death one (PD1): Friend or Foe of regulatory T cells in the modulation of immune response in allergic asthma. *J Allergy Clin Immunol* 119(1): S161, 2007. Presented in the Featured Poster Session at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Diego, CA February 22-27, 2007.
205. Mehta V, Moore B, Bewtra A, **Agrawal DK**: Inhibitor of apoptosis proteins in the regulation of eosinophil apoptosis in allergic disease. *J Allergy Clin Immunol* 119(1): S218, 2007. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Diego, CA February 22-27, 2007.
206. Moore B, Cheng G, Kim M, **Agrawal DK**: TGF- β 1 increases chloride channel activity in and migration of human blood eosinophils via intracellular pathways involving protein kinase C. *J Allergy Clin Immunol* 119(1): S221, 2007. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Diego, CA February 22-27, 2007.
207. Bharadwaj AS, **Agrawal DK**: Flt3 ligand (FL) treatment generates multiple subsets of myeloid dendritic cells (DCs) with differential phenotypes and functional properties in mouse model of asthma. *J Allergy Clin Immunol* 119(1): S235, 2007. Presented in an oral session at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Diego, CA February 22-27, 2007.
208. Cheng G, Kim M, Chaudhari B, **Agrawal DK**: Overexpression of CLC-3 channels prevent TGF- β -induced apoptosis in human airway epithelial cells. *J Allergy Clin Immunol* 119(1): S240, 2007. Presented in an oral session at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Diego, CA February 22-27, 2007.
209. **Agrawal DK**, Cheng G, Kelbe PW: Effect of (S)-albuterol on corticosteroid-induced inhibition of CREB activation in human airway smooth muscle cells. *Am J Respir Crit Care Med*. Published in April 2007. Presented at the International Conference of American Thoracic Society in May 2007 in San Francisco, CA.
210. Moore B, Cheng G, Shao Z, Bewtra AK, **Agrawal DK**: CLC-3 Channels and Migration of Eosinophils in Asthma: Effect of TGF- β 1. *J. Allergy Clin. Immunol.* 121(2): S45, 2008. The

- paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Philadelphia, PA. March 13-18, 2008.
211. **Agrawal DK**, McGee HS, Shao Z: Induction of CD25⁺ and Foxp3⁺ Cells by Flt-3 Ligand (FL) in the Lungs of Asthmatic Mice. *J. Allergy Clin. Immunol.* 121(2): S115, 2008. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Philadelphia, PA. March 13-18, 2008.
 212. Makinde TO, Cheng G, **Agrawal DK**: Extravascular Expression of Tie-2 Receptors in Asthmatic Airway and its Correlation with Pathological Parameters. *J. Allergy Clin. Immunol.* 121(2): S197, 2008. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Philadelphia, PA. March 13-18, 2008.
 213. McGee HS and **Agrawal DK**: Characterization of Lung CD4⁺CD25⁺ Cells after Adoptive Transfer of Naturally Occurring T- regulatory Cells and Inducible T-regulatory Cells in Allergic Asthmatic Mice. *J. Allergy Clin. Immunol.* 121(2): S115, 2008. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Philadelphia, PA. March 13-18, 2008.
 214. Shao Z and **Agrawal DK**: Flt-3 Ligand (FL) Treatment Upregulates PDL2 and Downregulates CCR7 in Distinct Myeloid Dendritic Cell (DC) Populations in the Lungs of Asthmatic Mice. *J. Allergy Clin. Immunol.* 121(2): S197, 2008. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Philadelphia, PA. March 13-18, 2008.
 215. Cheng G, Shao Z, **Agrawal DK**: Involvement of CLC-3 Chloride Channel In TGF- β 1 Induced Apoptosis in Human Airway Epithelial Cells. *J. Allergy Clin. Immunol.* 121(2): S202, 2008. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Philadelphia, PA. March 13-18, 2008.
 216. Stallworth AL, McGee HS, **Agrawal DK**: Effect of Intranasal vs. Intraperitoneal Sensitization of Mice with House Dust Mite Antigen on Airway Hyperresponsiveness (AHR) and SOCS expression in the Lung. *J. Allergy Clin. Immunol.* 121(2): S203, 2008. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Philadelphia, PA. March 13-18, 2008.
 217. Agrawal A, Hunter III WJ, Silva ED, Mary DS, Murphy RF, **Agrawal DK**. Expression of Leukemia/Lymphoma Related Factor (LRF) in Human Breast Carcinoma and Comparison with other Cancers. *The FASEB J.* 22:898.7, 2008.
 218. Aggarwal H, Jia G, Cheng G, **Agrawal DK**: Cross-talk between angiotensin II and IGF-1-induced connexin 43 expression in human saphenous vein smooth muscle cells involving $\alpha\beta$ 3 integrin clustering and activation of focal adhesion kinase. *The FASEB J.* 22:900.9, 2008.
 219. Jia GH, Cheng G, Gangahar DM, **Agrawal DK**: Angiotensin II-induced migration and proliferation of saphenous vein smooth muscle cells: Role of connexin 43 and AT1R-MAPK-AP-1 signaling pathway. *Arteriosclerosis, Thrombosis and Vascular Biology* 28(6): E112, 2008; Poster #433.
 220. **Agrawal DK** and Shao Z: Flt3-ligand expands CD11c^{high}CD8 α ^{high}CD11b^{low} lung dendritic cells favoring Th2 suppression in a mouse model of allergic airway inflammation. *J. Allergy Clin. Immunol.* 123(2): S207, 2009. The paper will be presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Washington, DC; March 13-17, 2009.
 221. McGee HS and **Agrawal DK**: IAPs and SOCS Proteins: A dynamic duo in the survival of T-regulatory cells in allergic asthma. *J. Allergy Clin. Immunol.* 123(2): S470, 2009. The

- paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Washington, DC; March 13-17, 2009.
222. Stallworth AL, III, McGee HS, **Agrawal DK**: Th17 cells and suppressors of cytokine signaling proteins in house dust mite model of asthma: Reversal by Flt3-ligand. *J. Allergy Clin. Immunol.* 123(2): S549, 2009. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Washington, DC; March 13-17, 2009.
223. Shao Z, **Agrawal DK**: Flt3-ligand regulates migratory patterns of lung dendritic cells in a mouse model of allergic airway inflammation. *J. Allergy Clin. Immunol.* 123(2): S857, 2009. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Washington, DC; March 13-17, 2009.
224. Anez MJ, Aggarwal A, Moore BT, Gallagher JC, **Agrawal DK**: Vitamin D administration increases cathelicidin expression in eosinophils and neutrophils and CCR3 expression in eosinophils. *J. Allergy Clin. Immunol.* 123(2): S971, 2009. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Washington, DC; March; 13-17, 2009.
225. Moore B, Shao Z, **Agrawal DK**: PKC- δ , MAP kinases and CLC-3 channel in the migration of human blood eosinophils. *J. Allergy Clin. Immunol.* 123(2): S972, 2009. The paper was presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, Washington, DC; March 13-17, 2009.
226. Pankajakshan D, Jia G, Tyndall SH, **Agrawal DK**: Neuropeptide Y receptors in carotid plaques of symptomatic and asymptomatic patients: Effect of inflammatory cytokines. This abstract was presented at the annual meeting of Arteriosclerosis, Thrombosis and Vascular Biology, Washington, DC 28 Apr -1 May 2009. Poster #268
227. Jia G, Aggarwal H, Tyndall SH, **Agrawal DK**: Expression of forkhead transcription factor O1 and p27kip in the carotid plaques of symptomatic and asymptomatic patients with carotid Stenosis. This abstract was presented at the annual meeting of Arteriosclerosis, Thrombosis and Vascular Biology, Washington, DC; 28 Apr -1 May 2009. Poster #271.
228. **Agrawal DK**, Cheng G, Kelbe P: Comparative effects of enantiomers of formoterol on importins in human bronchial smooth muscle cells. *Am J Respir Crit Care Med* 179: A5719, 2009. This abstract was presented at the annual meeting of the American Thoracic Society, San Diego, CA; 16 -21 May 2009.
229. Makinde TO, **Agrawal DK**: Expression of angiopoietins and Tie-2 regulation by Elf-1 transcription factor in the airway epithelium of asthmatic mice. *Am J Respir Crit Care Med* 179: A4260, 2009. This abstract was presented at the annual meeting of the American Thoracic Society, San Diego, CA; 16 -21 May 2009.
230. Jia G, Shao Z, Pankajakshan D, Pipinos I, and **Agrawal DK**: Regulatory Role of Neuropeptide Y in the Function of Dendritic Cells in Human Atherosclerosis Plaques. This research work was presented at the annual meeting of the American Heart Association, Orlando, FL, 14-18 November 2009.
231. **Agrawal DK**, Pankajakshan D, Youssef D, Gallagher JC, Casale TB: Vitamin D Decreases the Expression of Importin α -3 (KPNA4) in Human White Blood Cells. *J Allergy Clin Immunol* 125(2- Suppl. 1): AB55, 2010. The research findings were presented in a symposium at the annual meeting of the American Academy of Allergy, asthma and Immunology, New Orleans, LO, 26 February- 2 March 2010.
232. Youssef D, Pankajakshan D, **Agrawal DK**: Calcitriol increases the expression of CCR3, LL 37, TGF- β 1, and IL-5R in human blood eosinophils. *J Allergy Clin Immunol* 125(2- Suppl. 1): AB107, 2010. The research findings were presented at the annual meeting of the

American Academy of Allergy, asthma and Immunology, New Orleans, LO, 26 February- 2 March 2010.

233. McGee HS and **Agrawal DK**: Dose-dependent Effect of T-Regulatory Cells Reversing Airway Hyperresponsiveness in Cockroach-Induced Mouse Model. *J Allergy Clin Immunol* 125(2- Suppl. 1): AB125, 2010. The research findings were presented at the annual meeting of the American Academy of Allergy, asthma and Immunology, New Orleans, LO, 26 February- 2 March 2010.
234. Makinde TO and **Agrawal DK**: Tie2-mediated Downstream Effects in Airway Epithelial Cells and Potential Regulation of Tie2 by Flt3L in Asthmatic Airways. *J Allergy Clin Immunol* 125(2- Suppl. 1): AB44, 2010. The research findings were presented at the annual meeting of the American Academy of Allergy, asthma and Immunology, New Orleans, LO, 26 February- 2 March 2010.
235. Gaurav R and **Agrawal DK**: Expression of CLC3 isoforms in human blood eosinophils. *J Allergy Clin Immunol* 125(2- Suppl. 1): AB184, 2010. The research findings were presented at the annual meeting of the American Academy of Allergy, asthma and Immunology, New Orleans, LO, 26 February- 2 March 2010.
236. Agrawal T, McGee HS, Stallworth AL, Shao Z, **Agrawal DK**: Th17 Cells and SOCS Proteins in House-Dust Mite-Induced Allergic Airway Inflammation in a Murine Model. *J Allergy Clin Immunol* 125(2- Suppl. 1): AB41, 2010. The research findings were presented at the annual meeting of the American Academy of Allergy, asthma and Immunology, New Orleans, LO, 26 February- 2 March 2010.
237. Shao Z and **Agrawal DK**: KCa3.1 Calcium-activated Potassium Channel in the Migration and Activation of Lung Dendritic cells. *J Allergy Clin Immunol* 125(2- Suppl. 1): AB14, 2010. The research findings were presented at the annual meeting of the American Academy of Allergy, asthma and Immunology, New Orleans, LO, 26 February- 2 March 2010.
238. Moore B, Ivanov G, **Agrawal DK**: TGF- β 1 Induction of Chloride Channel and Kinase Expression in Human Airway Epithelial Cells. *J Allergy Clin Immunol* 125(2- Suppl. 1): AB105, 2010. The research findings were presented at the annual meeting of the American Academy of Allergy, asthma and Immunology, New Orleans, LO, 26 February- 2 March 2010.
239. **Agrawal DK** and Jia G: Induction of Vascular Stiffness by Angiotensin II via Inhibiting Matrix Gla Protein Expression and Decreasing Fetuin A Uptake in Smooth Muscle Cells of Human Saphenous Vein. The research findings were presented at the annual meeting of Arteriosclerosis, Thrombosis and Vascular Biology, San Francisco, CA 8-10 April 2010.
240. Jia G, Tyndall SH, **Agrawal DK**: Tumor Necrosis Factor- α Regulates p27^{kip} Expression and Apoptosis in Smooth Muscle Cells of Human Carotid Plaques via Forkhead Transcription Factor O1. The research findings were presented at the annual meeting of Arteriosclerosis, Thrombosis and Vascular Biology, San Francisco, CA 8-10 April 2010.
241. Pankajakshan D, Ho C, **Agrawal DK**: Isolation and Characterization of Porcine Bone Marrow Mesenchymal Stem Cells for Vascular Gene Therapy. The research findings were presented at the annual meeting of Arteriosclerosis, Thrombosis and Vascular Biology, San Francisco, CA 8-10 April 2010.
242. **Agrawal DK**, Pankajakshan D, Del Core MG, Pipinos I, and Hatzoudis G: Adeno-associated Virus 9 Vector in the Gene Therapy of Occlusive Vascular Diseases. Presented as an oral presentation at the annual meeting of the American Society of Investigative Pathology, Experimental Biology April 2010 in Anaheim, CA.

243. Pankajakshan D, Jia G, Pipinos I, **Agrawal DK**: Modulation of Neuropeptide-Y receptor expression by IGF-1 and atheroma-associated cytokines in carotid plaques of symptomatic and asymptomatic patients. Presented at the annual meeting of the American Society of Investigative Pathology, Experimental Biology April 2010 in Anaheim, CA.
244. Wang X, Shao Z, **Agrawal DK**: Voltage-dependent K⁺ channels in immunogenic and regulatory functions of lung dendritic cells. Presented as an oral presentation at the annual meeting of the American Society of Investigative Pathology, Experimental Biology April 2010 in Anaheim, CA.
245. **Agrawal DK**, Pankajakshan D, Del Core M, Pipinos I, Hatzoudis G: Adeno-associated Virus 9 Vector in the Gene Therapy of Occlusive Vascular Diseases. The research findings were presented at the annual meeting of the European Atherosclerosis Society, Hamburg, Germany, June 2010; *Atherosclerosis* 11(2): 17, 2010.
246. **Agrawal DK**, Pankajakshan D, Jia G, Shao Z, Pipinos I: NPY receptors on T-regulatory cells derived from carotid plaques of symptomatic and asymptomatic patients with carotid stenosis. The research findings were presented in a "Featured Symposium" at the annual of the European Atherosclerosis Society, Hamburg, Germany, July 2010; *Atherosclerosis* 11(2): 94, 2010.
247. **Agrawal DK**, Pankajakshan D, JC Gallagher: Human Blood Eosinophils: An Extrarenal Source of Converting Inactive Vitamin D to Its Active Form and Potential Role in Inflammation. Presented at the annual meeting of the American Society for Bone and Mineral Research, Toronto, Canada, October 15-19, 2010.
248. Agrawal T and **Agrawal DK**: Calcitriol Decreases the Expression of Importin Alpha3 in Human Bronchial Smooth Muscle Cells. Presented at the annual meeting of the American Society for Bone and Mineral Research, Toronto, Canada, October 15-19, 2010; *Journal of Bone and Mineral Research*. 2011 Jun; 25(S1): S 413.
249. Gupta GK, **Agrawal DK**: Effect of calcitriol on vitamin D receptor, its metabolizing enzymes and cell proliferation in porcine coronary artery smooth muscle cells. Presented at the annual meeting of the American Society for Bone and Mineral Research, Toronto, Canada, October 15-19, 2010; *Journal of Bone and Mineral Research*. 2011 Jun; 25 (S1): S 500.
250. Wang X, Gaurav R, **Agrawal DK**: pH-sensitive CLC channel provides a novel charge compensation pathway for phagocyte NADPH oxidase. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Francisco, CA; March 19-23, 2011.
251. Shao Z, Gaurav R, Lorence L, **Agrawal DK**: Calcium-activated Potassium Channel KCa3.1 and Chloride Channels Are Involved In Dendritic Cell Migration to Lymph Nodes. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Francisco, CA; March 19-23, 2011.
252. Pham M, Shao Z, Lorence L, Gaurav R, **Agrawal DK**: Effects of neuropeptide Y on monocytes-derived dendritic cell function. Presented as an oral presentation at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Francisco, CA; March 19-23, 2011.
253. Makinde TO, Ivanov G, Shao Z, **Agrawal DK**: Transcriptional Regulation of Tie2 in Airway Epithelium and its Correlation with Severity of Pathophysiological Features in Chronic Asthma. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Francisco, CA; March 19-23, 2011.
254. Agrawal T and **Agrawal DK**: Calcitriol increases the Expression of Importin7 (IPO7) and Importin13 (IPO13) in Human Bronchial Smooth Muscle Cells. Presented in the Featured

- Poster Symposium at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Francisco, CA; March 19-23, 2011.
255. Gaurav R and **Agrawal DK**: Membrane expression of CLC3 in human blood eosinophils. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Francisco, CA; March 19-23, 2011.
256. Kokubun K, Pankajakshan D, **Agrawal DK**: Optimization of Culture Medium and conditions in the differentiation of mesenchymal stem cells into airway epithelial cells. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, San Francisco, CA; March 19-23, 2011.
257. Gupta GK, Agrawal T, **Agrawal DK**: Effect of calcitriol on proliferation, migration and phenotypic modulation in porcine coronary artery smooth muscle cells: a novel candidate for therapy in coronary restenosis. Presented at the annual meeting of the Arteriosclerosis, Thrombosis and Vascular Biology, 28-30 April 2011, Chicago, IL.; Arteriosclerosis, Thrombosis and Vascular Biology Journal Abstract #274, p. 98, 2011.
258. Dhar K, Pankajakshan D, **Agrawal DK**: Hypermethylation of SOCS-3 gene in the presence of both TNF- α and IGF-1 in human coronary artery smooth muscle cells. Presented at the annual meeting of the Arteriosclerosis, Thrombosis and Vascular Biology, 28-30 April 2011, Chicago, IL.
259. Jia G, Gangahar DM, **Agrawal DK**: Angiotensin II induces vascular calcification through inhibiting matrix Gla protein expression and increasing activity of Runx2 in human vascular smooth muscle cells. Presented at the annual meeting of the Arteriosclerosis, Thrombosis and Vascular Biology, 28-30 April 2011, Chicago, IL.
260. Gupta GK, Del Core MG, Hatzoudis GI, Hunter WJ, **Agrawal DK**: Vitamin D receptor and tumor necrosis factor- α cross-talk in percutaneous transluminal coronary angioplasty-induced intimal hyperplasia. Presented at the annual meeting of the Arteriosclerosis, Thrombosis and Vascular Biology, 28-30 April 2011, Chicago, IL; Arteriosclerosis, Thrombosis and Vascular Biology Journal Abstract #578, p. 201, 2011.
261. Pankajakshan D, Kansal V, **Agrawal DK**: In vitro differentiation of bone-marrow-derived porcine mesenchymal stem cells into endothelial cells. Presented at the annual meeting of the Arteriosclerosis, Thrombosis and Vascular Biology, 28-30 April 2011, Chicago, IL.
262. Agrawal T, Gupta GK, **Agrawal DK**: Effect of TNF- α on Vitamin D Receptor and its Metabolizing Enzymes in Human Bronchial Smooth Muscle Cells: Potential implication in allergic inflammation in asthma. Presented at the annual meeting of the American Thoracic Society, Denver, CO; May 2011; American Journal of Respiratory and Critical Care Medicine. 2011 May; 183(1): A2578.
263. Agrawal T, Gupta GK, **Agrawal DK**: Effect of cytokines on expression of importin alpha-3 (kpna4) in human bronchial smooth muscle cells. Presented at the annual meeting of the American Thoracic Society, Denver, CO; May 2011; American Journal of Respiratory and Critical Care Medicine. 2011 May; 183(1): A2580
264. Makinde TO, Gaurav R and **Agrawal DK**: Tie2-mediated Signaling in Airway Epithelium and its regulation of Pathophysiological Features in Chronic Asthma. Presented at the annual meeting of the American Thoracic Society, Denver, CO; May 2011.
265. Makinde TO, Gaurav R and **Agrawal DK**: Expression of Epithelial-Mesenchymal Transition Markers in Chronic Asthmatic Airway. Presented at the annual meeting of the American Thoracic Society, Denver, CO; May 2011.
266. **Agrawal DK**, Pankajakshan D, Kansal V: *In vitro* differentiation of bone marrow-derived porcine mesenchymal stem cells into endothelial cells: Potential role of canonical Wnt

- signaling pathway. Presented at the annual meeting of the European Atherosclerosis Society held in June 2011 at Gothenburg, Sweden; *Atherosclerosis* 12(1): 67, 2011.
267. **Agrawal DK**, Gupta GK, Del Core MG, Hatzoudis GI: Suppressor of Cytokine Signaling-3 and Intimal Hyperplasia in Porcine Coronary Arteries following Coronary Intervention Presented at the annual meeting of the European Atherosclerosis Society held in June 2011 at Gothenburg, Sweden; *Atherosclerosis* 12(1): 72, 2011.
 268. Dhar K, Pankajakshan D, **Agrawal DK**: Silencing of SOCS3 gene due to hypermethylation induced by both TNF- α and IGF-1 in coronary artery smooth muscle cells. Presented at the annual meeting of the European Atherosclerosis Society held in June 2011 at Gothenburg, Sweden; *Atherosclerosis* 12(1): 82, 2011.
 269. Gupta GK, Agrawal T, **Agrawal DK**: Effect of Growth Factors on Vitamin D Receptor and its Role in Vitamin D-Mediated Growth Suppression in Porcine Coronary Artery Smooth Muscle Cells. Presented at the annual meeting of the American Society of Bone and Mineral Research, held in September 16-20, 2011 in San Diego, CA.
 270. Agrawal T, Gupta GK, **Agrawal DK**: A Cross-talk between Prohibitin and Importin- α 3 in Vitamin D signaling pathway - A novel implication in allergic airway inflammation. Presented at the annual meeting of the American Society of Bone and Mineral Research, held in September 16-20, 2011 in San Diego, CA.
 271. **Agrawal DK**: Vitamin D in Maternal and Child Health Care. Presented in the Plenary Session on "Preventive Maternal and Child Health Care" at the 99th Indian Science Congress, Bhubaneswar, India, 3-9 January 2012.
 272. Fischer K and **Agrawal DK**: Transforming growth factor- regulates the expression of toll-like receptors in human bronchial epithelial cells. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, held in Orlando, FL, March 2012.
 273. Makinde, TO, Gaurav R, Steininger R, **Agrawal DK**: Expression of vitamin D receptor and CYP24A1 enzyme in airway epithelium in allergic asthma. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, held in Orlando, FL, March 2012.
 274. Gaurav R and **Agrawal DK**: Differential effect of TGF- β 1 and eotaxin on novel CLC3 ion channel variants in human peripheral blood eosinophils. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, held in Orlando, FL, March 2012.
 275. Agrawal, Tanupriya, Gupta GK, Kim M-J, **Agrawal DK**: Increased expression of importin α 3 (KPNA4) and decreased VDR in the lung of OVA-sensitized and challenged mice. Presented at the annual meeting of the American Academy of Allergy, Asthma and Immunology, held in Orlando, FL, March 2012.
 276. Kansal V, Sur S, Rao V, **Agrawal DK**: Vitamin D₃ attenuates ADAM-12-mediated shedding of EGFR in carotid artery smooth muscle cells of hypercholesterolemic swine. Presented at the annual meeting of the Arteriosclerosis, Thrombosis, and Vascular Biology, held in Chicago, IL, April 2012.
 277. Gupta GK, Del Core MG, **Agrawal DK**: Cardiac Hypertrophy and Epicardial Fat Inflammation in Vitamin D- Deficient and Hypercholesterolemic Swine. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2012; 32: A311.
 278. Gupta GK, Agrawal T, Del Core MG, Hunter WJ, **Agrawal DK**: Vitamin D Deficiency Potentiates Restenosis Following Coronary Angioplasty in Hypercholesterolemic Swine. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2012; 32: A469.

279. Rao V, Kansal V, Sur S, Tyndall SH, **Agrawal DK**: Epidermal growth factor receptor increases MMP-9 expression in carotid plaques of symptomatic patients with carotid stenosis. Presented at the annual meeting of the Arteriosclerosis, Thrombosis, and Vascular Biology, held in Chicago, IL, April 2012.
280. Sur S, Rao V, Kansal V, **Agrawal DK**: Potential Regulation of Intimal Hyperplasia by ADAM12 and Polo-Like Kinase-1 in Human Saphenous Vein Grafts in Coronary Artery Bypass Patients. Presented at the annual meeting of the Arteriosclerosis, Thrombosis, and Vascular Biology, held in Chicago, IL, April 2012.
281. Kansal V, Sur S, Rao V, **Agrawal DK**: Vitamin D₃ Downregulates Matrix Metalloproteinases and EGFR-mediated Vascular Smooth Muscle Cell Proliferation and Migration in Hypercholesterolemic Swine. Accepted for presentation at the annual meeting of the European Atherosclerosis Society, held in Milan, Italy May 2012.
282. Rao V, Kansal V, Sur S, Tyndall SH, **Agrawal DK**: ADAM-12-mediated HB-EGF activation regulates smooth muscle cell proliferation and migration in carotid plaques of symptomatic patients with carotid stenosis. Accepted for presentation at the annual meeting of the European Atherosclerosis Society, held in Milan, Italy May 2012.
283. Aggarwal A, Kansal V, Andreen C, **Agrawal DK**: Vitamin D decreases the protein expression of suppressors of cytokine signaling in the lungs of murine model of allergic airway inflammation. Presented in the Featured Poster Session at the annual meeting of the American Academy of Allergy, Asthma and Immunology, held in San Antonio, TX 22-26 February 2013; *J Allergy Clin Immunol* 02/2013; 131(2): Ab148. DOI:10.1016/j.jaci.2012.12.1190.
284. Gaurav R, Kim, M-J, Bewtra AK, **Agrawal DK**: CLC3 transcript variants in the activation and migration of eosinophils in allergic asthmatics. Presented in the Featured Poster Session at the annual meeting of the American Academy of Allergy, Asthma and Immunology, held in San Antonio, TX 22-26 February 2013; *J Allergy Clin Immunol* 02/2013; 131(2-2): Ab123-AB123. DOI:10.1016/j.jaci.2012.12.1108.
285. Gaurav R and **Agrawal DK**: Identification and cloning of active CLC3 promoter. *J Allergy Clin Immunol* February 2014; 133(2-2): Ab139-Ab139; DOI: 10.1016/j.jaci.2013.12.512.
286. **Agrawal DK**, Gaurav R and Betra AK: Asthma severity and expression of CLC3 on human peripheral blood and nasal lavage eosinophils. *J Allergy Clin Immunol* February 2014; 133(2-2): Ab56-Ab56. DOI:10.1016/j.jaci.2013.12.224.
287. Aggarwal A, Perry G, Kansal V, Kim M-J, **Agrawal DK**: Vitamin D supplementation reduces TH17 cells in the lung and spleen of CRA-sensitized and challenged mice. *J Allergy Clin Immunol* February 2014; 133(2-2): 133(2):Ab136. DOI:10.1016/j.jaci.2013.12.504
288. Agrawal T, Gupta GK, **Agrawal DK**: Vitamin D supplementation reduces airway hyperresponsiveness and allergic airway inflammation in a murine model. Presented in the Featured Poster Session at the annual meeting of the American Academy of Allergy, Asthma and Immunology, held in San Antonio, TX 22-26 February 2013.
289. Attairu I, Djossou KP, Pankajakshan D, **Agrawal DK**: Critical Role of Sox9 in the Differentiation of Mesenchymal Stem Cells to Endothelial cells. Presented at the 2013 annual meeting of the Experimental Biology, Boston, MA - 22-24 April 2013.
290. Rao Velidi, Kansal V, Hunter WJ, III, **Agrawal DK**: Epidermal growth factor dependent collagen loss in human carotid plaques is mediated by matrix metalloproteinase 9. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2013; 33: A272.

291. Almalki S, Rao V, Pankajakshan D, **Agrawal DK**: Expression of Matrix Metalloproteases during the differentiation of porcine adipose-derived mesenchymal stem cells to endothelial cells. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2013; 33: A294.
292. **Agrawal DK**, Kim M-J, Gaurav R: Differential Effects of TGF-beta1 on IL-5 and Eotaxin-induced Chloride Currents in Human Blood Eosinophils. Presented at the 2013 annual meeting of the American Association of Immunology, Honolulu, Hawai'i; 2-5 May 2013.
293. **Agrawal DK**, Dhar K, Pankajakshan P: MicroRNA-1264 upregulates suppressor of cytokine signaling-3 expression under inflammatory conditions in human coronary artery smooth muscle cells. Presented in a Thematic Session at the 81st annual meeting of the European Atherosclerosis Society, Lyon, France 2-5 June 2013.
294. **Agrawal DK**, Gupta GK, Agrawal T, Del Core MG, Hunter WJ: Vitamin D supplementation reduces restenosis following coronary intervention in hypercholesterolemic swine. Presented in a Thematic Session at the 81st annual meeting of the European Atherosclerosis Society, Lyon, France 2-5 June 2013.
295. Selvaraj V, Baskar K, Sur S, **Agrawal DK**: Intrinsic Serotonergic System in Human Coronary Artery Smooth Muscle Cells: Potential Implication in Coronary Artery Disease. Presented at the 81st annual meeting of the European Atherosclerosis Society, Lyon, France 2-5 June 2013. The abstract is published in June/July 2013 issue of *Atherosclerosis*.
296. **Agrawal DK**, Agrawal T, Gupta GK: Immunomodulatory role of vitamin D in allergic airway inflammation and airway hyperresponsiveness in bronchial asthma. Presented as an oral presentation at the International Congress of Immunology meeting in Milan, Italy; 22-27 August 2013.
297. **Agrawal DK**, Radwan M, Swier V, Pelham C: Vitamin D deficiency increases macrophage polarization and inflammatory infiltrates in epicardial adipose tissue of atherosclerotic swine. Presented as a poster at the International Congress of Immunology meeting in Milan, Italy; 22-27 August 2013.
298. **Agrawal DK**: Vitamin D regulates high cholesterol high fructose-induced changes in coronary artery disease. Invited Lecture presentation at the 101st annual meeting of the Indian Science Congress, held in Jammu, India 3-7 February 2014.
299. **Agrawal DK**, Rao VH, Stoupa S: Blockade of ETS-1 Attenuates EGF-Induced Collagen Loss in Carotid Plaques of Patients with Carotid Stenosis. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2014; 34: A88.
300. Llamas Y, Pankajakshan D, **Agrawal DK**: Machinery for vitamin D metabolism in porcine adipose-derived mesenchymal stem cells. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2014; 34: A559.
301. **Agrawal DK**, Swier V, Tang L, Radwan MM, Del Core M, Hunter WJ. Correlation of M1 and M2 macrophages with the severity of atherosclerosis and insulin resistance *Atherosclerosis* August 2014; 235(2):e38-e39; DOI:10.1016/j.atherosclerosis.2014.05.082
302. Chen S, Boosani C, **Agrawal DK**. KPNA4 mediates vitamin D-dependent inhibition of NF-kB activity in swine epicardial preadipocytes. *Circulation* 130: A12818, 2014.
303. Sur S, Chen S, Sugimoto JT, **Agrawal, DK**. Role of polo-like kinase-1 in intimal hyperplasia in saphenous vein graft: potential implication in vein-graft disease. *Circulation*, 130:A15922, 2014.
304. Fischer K, **Agrawal DK**: Induction of epithelial mesenchymal transition in house dust mite, ragweed and alternaria-sensitized and challenged mice. *J Allergy Clin Immunol* February 2015; 135(2):AB62; DOI:10.1016/j.jaci.2014.12.1135.

305. Hall SC, **Agrawal DK**: Clinically relevant allergen mixture induces robust immune response by increasing CD11c+CD11b+MHCIIhiCD103int lung dendritic cells. *J Allergy Clin Immunol* February 2015; 135(2): AB64; DOI:10.1016/j.jaci.2014.12.1141.
306. Rai V, Rao V, **Agrawal DK**: Dendritic cells express triggering receptor expressed on myeloid cells-1 and correlate with plaque stability in symptomatic and asymptomatic patients with carotid stenosis. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2015; 35: A370.
307. Rao V, Stoupa S, Rai V, **Agrawal DK**: Tumor necrosis factor- α regulates triggering receptor expressed on myeloid cells-1-dependent matrix metalloproteinases in the carotid plaques of symptomatic patients with carotid stenosis. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2015; 35: A372.
308. Llamas Y, Almalki S, **Agrawal DK**: 1,25-dihydroxyvitamin D enhances VEGF-stimulated porcine adipose-derived mesenchymal stem cells toward the endothelial phenotype involving Wnt/ β -catenin pathway. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2015; 35: A614.
309. **Agrawal DK**, Yin K, Swier V, Tang L, Radwan MM. Vitamin D protects against atherosclerosis via regulation of macrophage foam cell formation and polarization in hypercholesterolemic swine. *Atherosclerosis* August 2015; 241(1): e81; doi:10.1016/j.atherosclerosis.2015.04.284.
310. Hall SC, **Agrawal DK**: Allergen exposure increases triggering receptor expressed on myeloid cell (TREM)-2 expression on lung dendritic cell subsets in a murine model of asthma. *J Allergy Clin Immunol* February 2016; 136(2); doi:10.1016/j.jaci.2015.12.076.
311. Nandipati K, Subramanian S, Pallati P, **Agrawal DK**, Sharma P: Triggering receptor expressed on myeloid cells-1 (TREM-1) regulates insulin resistance in morbidly obese population. *Gastroenterology* April 2016;150(4): S1197; DOI: 10.1016/S0016-5085(16)34048-3
312. Singhal S, Kapoor H, Subramanian S, Akimoto S, **Agrawal DK**, Mittal SK: Patterns of polymorphisms in vitamin D metabolism related genes in the genomic DNA of patients with Barrett's esophagus and esophageal adenocarcinoma. *Gastroenterology* 2016 Apr; 150(4): S1226; DOI: 10.1016/S0016-5085(16)34144-0.
313. **Agrawal DK**, Gunasekar P, Boosani CS, Swier V, Radwan MM, DelCore MG, Hunter, WJ: Gene therapy reduces angioplasty induced restenosis in high cholesterol swine model. *Atherosclerosis* 252: e239, September 2016; DOI: 10.1016/j.atherosclerosis. 2016.07.022.
314. Hall SC, **Agrawal DK**: Distinct phenotype of dendritic cells migrating from the lung to the lymph nodes during allergic airway inflammation. *J Allergy Clin Immunol* - February 2017; DOI: 10.1016/j.jaci.2016.12.864.
315. **Agrawal DK**, Radwan MM, Zhang Z, Antony A: Vulnerable atherosclerotic plaque model in atherosclerotic swine and a potential target site for intervention. *Atherosclerosis* 2017 Aug; 263: e112. doi: 10.1016/j.atherosclerosis.2017.06.359. Epub 2017 Aug 12; PMID: 29365462.
316. Philips B, Turco L, Walters RW, McDonald D, Wagner M, Cornell D, Bertelotti R, **Agrawal DK**, Fitzgibbons R, Asensio JA: The Tiger Country Sefries: Penetrating pancreaticoduodenal injuries, Analysis of 145 patients from National Trauma Data Bank (NTDB) 2010-2014. *J Am College of Surgeons* October 2017; 225(4): e189. doi: 10.1016/j.jamcollsurg.2017.07.1042.
317. **Agrawal DK**, Swier V, Gunasekar P, Fleegel J, Radwan MM: Vitamin D deficiency induces pro-inflammatory phenotype of epicardial tissue accelerating neointimal hyperplasia following coronary intervention. *Atherosclerosis* 2018 Aug; 275: doi: 10.1016/j.atherosclerosis.2018.06.126.

318. Abdo J, Wichman CS, Dietz NE, Fleegel J, Ciborowski P, Mittal SK, **Agrawal DK**: Discovery of novel markers in Barrett's-related esophageal adenocarcinoma. *Cancer Res* 78 (13 Supplement): 2691-2691, July 2018. doi: 10.1158/1538-7445.AM2018-2691.
319. Fleegel JP, Abdo J, **Agrawal DK**: Identification of 4 novel markers in the chemotherapy resistance of esophageal adenocarcinoma. *Cancer Res* 78 (13 Supplement): 1976-1976, July 2018; doi: 10.1158/1538-7445.AM2018-1976.
320. Addula M, **Agrawal DK**, Kizer R: Association of Novel Inflammatory Markers TREM1 and TREM2 with Vitamin D Levels in Inflammatory Bowel Disease. *The American Journal of Gastroenterology* September 2018; 113(Supplement): S383; DOI: 10.14309/00000434-201810001-00683
321. Liu Martin (Xiang-der), **Agrawal Devendra K**, Chatzizisis Yiannis S: Novel pathobiologic link between shear stress and triggering receptor expressed on myeloid cells 1 (TREM1) promotes inflammation and matrix degradation. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2019; 39 (Suppl.1): A409.
322. Diaz C, Thankam FG, Dilisio MF, Gross MR, **Agrawal DK**: Novel hydrogel template for guided tissue engineering of shoulder tendon. *2020 Orthopedic Research Society*; February 2020.
323. Chalfant V, Thankam FG, **Agrawal DK**: Expression of ECM components in the left ventricle at the anastomoses site of swine CABG model. *J Am Coll Cardiol* 2020 March; 75(11): Supplement 1; 148; doi: 10.1016/S0735-1097(20)30775-0.