

**Dr. Nadeem Afzal**

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**OBJECTIVE:** Impart knowledge, experience and contribute in the field of immunology.

### ***EDUCATION***

**MBBS**, Allama Iqbal Medical College Lahore, Pakistan 1986

**MSc Medical Immunology**, University of London (UK) 1994-96

**MEAACI** (Member European Academy of Allergology and Clinical Immunology), 2007

**PhD Immunology**, University of Health Sciences Lahore, Pakistan 2013

### ***PROFILE***

- Clinical Research Associate (CRA) Program, 2006, Kriger Research Centre, Canada
- Over 20 years of experience in laboratory supervision and quality assurance
- Established Department of Immunology in Children Hospital and Institute of Child Health Lahore, Pakistan
- Trained 7-M. Phil and 8-MSc Medical Laboratory Technologists in Immunology
- Teaching experience: immunology and laboratory medicine of more than 18 years
- Supervisor and examiner of postgraduate & undergraduate students
- **Impact factor 32.497**

### ***Member of Professional bodies***

- Pakistan Medical and Dental council 1987 – to date
- British Society of Immunology 1995-97
- Malaysian Society of Allergy and Immunology 2002-05
- Pakistan Society of Immunology 2013 – Life member

### ***Member of reviewer board of Scientific Journals***

1. Journal of Immunology; British Society of Immunology, UK
2. Journal of College of Physicians and Surgeons, Pakistan
3. Journal of Biological Sciences, Universiti Sains Malaysia, Malaysia
4. Turkish Journal of Immunology, Turkey
5. Majmaah Journal of Health Sciences, Kingdom of Saudi Arabia
6. Assistant editor, Journal of Biomedica Pakistan

### ***PRESENTLY ASSIGNED DUTIES: November 2006 - To date***

#### **Professor and Head, Department of Immunology**

University of Health Sciences, Lahore, Pakistan

Job specifications:

- Teaching and training postgraduate students
- Supervising postgraduate students of Immunology
- Supervision of Immunology laboratory
- Involvement in various research activities

***Member of committees at UHS***

- Advanced Studies & Research Board
- Technical & Inspection Committee
- Purchase committee
- Tender committee
- Medical College Admission Test (MCAT) for various medical colleges

***LAST ASSIGNED DUTIES: February 2001—31 May 2005***

Lecturer, Department of Immunology, School of Medical Sciences, Universiti Sains Malaysia, Malaysia

A. Undergraduate & postgraduates

- Teacher, examiner and coordinator of Immunology
- Problem based learning to medical students
- Supervised three postgraduate students

B. Clinical services:

Coordinator - Immunology diagnostic laboratory, Hospital Universiti Sains Malaysia: a referral center for various immunological tests in the province

C. Research: involvement in various research activities

***PROFESSIONAL EXPERIENCE***

**Jan. 1998-Jan. 2001: In charge, Immunology Department**, Children's Hospital & the Institute of Child Health Lahore, Pakistan

- Established Department of Immunology in that newly constructed children hospital for diagnostic laboratory services of patients from indoor, outdoor, and emergency department
- Apart from routine serology, sophisticated techniques such as RID, ELISA, Immunofluorescence and Chemiluminescence assay were introduced
- Instructor of Immunology for B.Sc medical laboratory technologists

**July 1988-Dec. 1997: Scientific Officer**, National Institute of Health (NIH), Pakistan

- Immunology & Allergy department: Member of National AIDS Center and counselor for HIV/AIDS patients. Tutor of Immunology & Hematology to BSc students of medical laboratory technology. Trained in various techniques i.e., skin prick test for different allergies, and HLA- typing. Maintained live culture of parasite *Leishmania donovani*
- Hematology Department: bone marrow aspirations, trephine biopsies along with staining, morphology and interpretation. Involved in Quality Assurance program in collaboration with NEQAS, UK

**March 1987 Residency:** Six months each in general surgery and internal medicine at Services Hospital Lahore Pakistan

## **PAPER PRESENTED**

- Annual congress of British Society of Immunology at Brighton UK, December 1995 Measurement of anti-histone antibodies in autoimmune patients displaying chromosome positive anti-nuclear antibody (poster presented)
- 4<sup>th</sup> Malaysian Congress of Allergy and Immunology. 14-16, March 2003, Kuala Lumpur; Measurement of anti-histone antibodies in autoimmune patients displaying chromosome positive anti-nuclear antibody
- 5<sup>TH</sup> Malaysia Conference of Medical Sciences May 2004. The association of HLA class-II antigens with anti-cardiolipin antibody expression in Malays with systemic lupus erythematosus in Hospital Universiti Sains Malaysia
- 6<sup>th</sup> Malaysian Conference of Medical Sciences May 2005. Role of anti-nucleosome antibodies as a disease marker in SLE and its correlation with disease activity.
- 33<sup>rd</sup> Pakistan Association of Pathologists. Pakistan Institute of Medical Sciences, Islamabad, Pakistan. 6 – 8 November 2009. Immuno-diagnostic role of interferon-gamma in tuberculosis
- 33<sup>rd</sup> Pakistan Association of Pathologists. Pakistan Institute of Medical Sciences, Islamabad, Pakistan. 6 – 8 November 2009. Percentages of CD4<sup>+</sup> and CD8<sup>+</sup> T lymphocytes in tuberculosis patients
- 33<sup>rd</sup> National conference Pakistan Association of Pathologists. Pakistan Institute of Medical Sciences, Islamabad, Pakistan. 6 – 8 November 2009. Frequency of anti-neutrophil cytoplasmic antibody in glomerulonephritis
- 33<sup>rd</sup> National conference Pakistan Association of Pathologists. Pakistan Institute of Medical Sciences, Islamabad, Pakistan. 6 – 8 November 2009. Determination of CRP and IL-6 in HCV positive and HCV negative patients of chronic renal failure on haemodialysis
- 34<sup>th</sup> National conference Pakistan Association of pathologists. KEMU 5-7 Nov. 2010 Lahore. CD4<sup>+</sup>CD25<sup>hi</sup> Regulatory T cells in healthy males and females mediate gender difference in the prevalence of autoimmune diseases
- 34<sup>th</sup> National conference Pakistan Association of pathologists. KEMU 5-7 Nov. 2010 Lahore. Quantification of Serum IgA of Coeliac Disease Patients
- 34<sup>th</sup> National conference Pakistan Association of pathologists. KEMU 5-7 Nov. 2010 Lahore. Detection of anti-*Helicobacter pylori* igG antibodies in healthy subjects
- 37<sup>th</sup> Annual Conference of Pakistan Association of Pathologists and 2<sup>nd</sup> Joint Conference of Societies of Pathologists. 20<sup>th</sup>-22<sup>nd</sup> Dec 2013 Lahore. Immune mechanisms in type-II diabetic retinopathy.
- 37<sup>th</sup> Annual Conference of Pakistan Association of Pathologists and 2<sup>nd</sup> Joint Conference of Societies of Pathologists. 20<sup>th</sup>-22<sup>nd</sup> Dec 2013 Lahore. Levels of IL-2, INF-gamma and IL-10 in umbilical cord blood of full term and pre-term pregnancies.
- 37<sup>th</sup> Annual Conference of Pakistan Association of Pathologists and 2<sup>nd</sup> Joint Conference of Societies of Pathologists. 20<sup>th</sup>-22<sup>nd</sup> Dec 2013 Lahore. HLA-DR beta 1\*12, levels of total IgE and IL-13 in patients of bronchial asthma from a local tertiary care hospital in Lahore.
- 37<sup>th</sup> Annual Conference of Pakistan Association of Pathologists and 2<sup>nd</sup> Joint Conference of Societies of Pathologists. 20<sup>th</sup>-22<sup>nd</sup> Dec 2013 Lahore. Levels of anti-streptolysin O titer and C-reactive protein in Children of rheumatic heart disease.

- 37<sup>th</sup> Annual Conference of Pakistan Association of Pathologists and 2<sup>nd</sup> Joint Conference of Societies of Pathologists. 20<sup>th</sup>-22<sup>nd</sup> Dec 2013 Lahore. Effect of inhaled corticosteroids on the growth of asthmatic children.
- 37<sup>th</sup> Annual Conference of Pakistan Association of Pathologists and 2<sup>nd</sup> Joint Conference of Societies of Pathologists. 20<sup>th</sup>-22<sup>nd</sup> Dec 2013 Lahore. Determination of ANA, anti-dsDNA and RF antibodies in asymptomatic healthy individuals.
- 37<sup>th</sup> Annual Conference of Pakistan Association of Pathologists and 2<sup>nd</sup> Joint Conference of Societies of Pathologists. 20<sup>th</sup>-22<sup>nd</sup> Dec 2013 Lahore. High percentage of SLE patients has anti-thyroid antibodies.
- 6<sup>th</sup> National Conference on Emerging Trends in Diabetes 22<sup>nd</sup> February 2014 Services Institute of Medical Sciences Lahore. Enumeration of CD4<sup>+</sup>CD25<sup>+</sup> T regulatory cells in patients of type-II diabetic retinopathy.

### ***PROFESSIONAL TRAININGS***

- 2<sup>nd</sup> Training workshop; Laboratory Diagnosis of HIV infection. NIH, Pakistan July 18-22,1988
- WHO International workshop; Laboratory Diagnosis of HIV. NIH, Dec. 21-25,1988
- WHO/EMRO workshop; Laboratory Proficiency and Quality Control of Diagnosis of HIV infection. NIH, Nov. 5-9,1989
- International workshop; Psychological counseling for persons with HIV/AIDS infection and related diseases. Tehran-Iran Dec. 9-13, 1989
- National workshop; Identification and Control of Environment Health Hazards. NIH, May 5-10, 1990
- National workshop; Protection against Chemical Biological and Radiological Warfare. Civil Defense Academy Lahore, July 14-23, 1990
- National Training workshop; HIV Surveillance Program Team Members. NIH, April 19-22, 1991
- National workshop; Epidemiological Surveillance of HIV/AIDS infection. NIH, Jan. 19-22, 1992
- Twelve weeks training: Department of Hematology; Armed Forces Institute of Pathology & Armed Forces Institute of Blood Transfusion, Pakistan May- July 1992
- National workshop; Quality Assurance in Clinical Chemistry. NIH, Nov. 23-24, 1994
- Seminar: laboratory diagnosis of auto-immune disorders. Univrsiti Sains Malaysia, Malaysia August 13, 2001
- Workshop: Multiple Choice Questions & Item Analysis USM, Malaysia Aug. 6-7, 2001
- Workshop: Good Clinical Practice USM, Malaysia Sept. 30-Oct 2, 2001
- Intensive Course Research Methodology for Academic Staff, USM Malaysia Oct. 7-8, 2001
- Intensive course: Biostatistics & Hands-on Statistical Software Application in Medical Research, USM Malaysia Oct. 28-29, 2001
- Introduction to Laboratory Accreditation: ISO 17025, USM Malaysia Nov.1, 2001
- MD Curriculum Review Workshop, USM Malaysia, Jan. 17-19, 2002
- Workshop: Problem Based Learning for tutor guide, USM Malaysia April 23-24,2002

- Workshop: student assessment with focus on MEQ, USM Malaysia Sept. 30- Oct. 1 2002
- Workshop: Student assessment with focus on OSCE/OSPE, USM Malaysia, Oct. 28-30, 2002
- Workshop: producing quality thesis and dissertation: Training the trainers; Jan.16-18<sup>th</sup>, 2003, Kuala Trengganu, Malaysia
- Workshop: graduate supervision, USM Malaysia, Jun. 18, 2003
- Research Workshop Health Campus USM Malaysia, Aug. 20-21, 2003
- M. Path Curriculum Review Workshop USM Malaysia Aug.23-24, 2003
- 3<sup>rd</sup> National Course: Effective Post-graduate Teaching and Supervision, Aug. 24-26, 2003 USM Malaysia
- 5<sup>th</sup> Malaysian Congress of Allergy & Immunology, April 2-4, 2004 Kuala Lumpur, Malaysia
- Quality assurance in clinical laboratory April 21<sup>st</sup> 2004, USM Malaysia
- Molecular Genetics; intensive course in collaboration with University of Sydney, Sept. 24-26, 2004 USM Malaysia
- National Diagnostic Workshop on Real Time PCR & DNA Chips Technology; Oct. 6-7, 2004 USM Malaysia
- Seminar; Revolutionary Gene Discovery Tools. November 3<sup>rd</sup> 2004, USM Malaysia
- Seminar Pediatric Immunology; Dec. 10<sup>th</sup> 2004, Universiti Putra Malaya, Kuala Lumpur, Malaysia
- Workshop on Type-A & Type-R MCQ in Postgraduate Medical Education; Dec. 15-16, 2004, USM, Malaysia
- National conference on Prion Diseases; A threat to live stock and humans in Pakistan; May 20, 2008, University of Veterinary and Animal Sciences, Lahore
- Seminar on 'Joint Diseases', January, 31. 2009, Armed Forces Institute of Pathology, Rawalpindi, Pakistan
- Workshop on implementation of CME policy and strategies. December, 12, 2009, College of Physicians and Surgeons Lahore Pakistan
- Professional Competency Enhancement Program for Medical Teachers, 11<sup>th</sup> Jan to 9<sup>th</sup> Feb 2010, UHS Lahore
- Workshop on 'Out come based assessment. March 1-2, 2010, University of Management Technology, Lahore
- Workshop on 'Clinical application of immunoflorescent techniques' 8<sup>th</sup> November 2010, UHS Lahore
- Workshop on 'Presentation Skills', 17-18<sup>th</sup> February 2011, Department of Medical Education, UHS Lahore
- Workshop on 'Chairing A Committee', 12<sup>th</sup> March 2011, Department of Medical Education, UHS Lahore
- Workshop on 'Medical Ethics', 18-19 March 2011, Department of Medical Education, UHS Lahore
- Workshop on 'Assessment Drives Learning', 19-22, June, 2012. Learning Innovation Division, Higher Education Commission, Islamabad.

- National workshop on ‘Recombinant Technologies in Vaccine Development’. April 4, 2013, Institute of Biochemistry & Biotechnology, University of Veterinary & Animal Sciences Lahore Pakistan.
- Workshop on Capacity Building Program on PPRA Rules 2009. 3<sup>rd</sup> June 2013 at Punjab Procurement Regulatory Authority, Lahore
- 1<sup>st</sup> International Conference of PhD Fellow/Scholars of Health Sciences. 23-24 Nov 2013. University of Faisalabad, Pakistan.
- Seminar on ‘Strategic Analysis and Provision of New Guidelines for the safe Disposal of Health Care Waste Management’ by WHO/NIH Islamabad, 9<sup>th</sup> December 2013, at UHS Lahore
- Workshop on ‘Grant Writing Skills’ for postgraduate and graduate students. 13<sup>th</sup> February 2014. University of Health Sciences Lahore.
- Conference: Performance of Health Professionals Education: Impact on Health Care. Association for Excellence in Medical Education. 07-09 March 2014. University of Health Sciences Lahore Pakistan.
- Second National Conference. Pakistan Association of Medical Editors. 26<sup>th</sup>-27<sup>th</sup> April 2014. University of Health Sciences Lahore Pakistan.
- Workshop on ‘Planning Meaningful Learning’. 17<sup>th</sup> & 18<sup>th</sup> June 2014. University of Health Sciences Lahore Pakistan.
- Workshop on Assessment for Learning & Certification. 17<sup>th</sup>, 18<sup>th</sup> September 2014. University of Health Sciences Lahore Pakistan.
- Workshop on Curriculum Revision and Assessment for Learning. 28<sup>th</sup> – 30<sup>th</sup> January 2015. University of Health Sciences Lahore Pakistan.
- 2<sup>nd</sup> Pakistan Chapter of Tallories Network (PCTN) Conference: Sustainable Development Solutions and Action Plans Universities and Their Youth. 18<sup>th</sup> March 2015. National University of Science and Technology, Islamabad.
- Workshop on Curriculum Revision and Assessment of Learning. 31<sup>st</sup> March – 2<sup>nd</sup> April 2015. University of Health Sciences Lahore Pakistan.
- Workshop on Research and Clinical Ethics. 24-25 August 2015. Directorate General Health Services, Punjab, Lahore Pakistan.

## ***PUBLICATIONS***

- Anwar-f, **Afzal-N**, Zaidi-S, Sultana-I. Detection of HIV antibodies: Evaluation of four commercially available Enzyme Immunoassays. JPMA 1990, Vol: 40, No. 9; 216-217
- **Afzal-N**, Morrow John, Comacchio-Raff, Jeffery-Elisbat. Measurement of anti-histone antibodies in autoimmune patients displaying chromosome positive ANA. The International Medical Journal June 2004 Vol 3 No1
- **Afzal N**, Immunology: an area of constant research. International Biopharmaceutical Association Journal, Canada, July 2006
- Nurul Khaiza Yahya, **Afzal N**, Kamaliah Mohd Daud. The association of HLA class-II antigens with anti-cardiolipin antibody expression in Malays with systemic lupus erythematosus in Hospital USM, Malaysia International Medical Journal, Vol 16, No 1, March 2009: 3-7

- S. Suliman, **Afzal N**, C. Maraina. Anti-nucleosome antibody as a disease marker in patients with systemic lupus erythematosus (SLE) and its correlation with disease activity. *International Journal of Rheumatology* 2009; 12: 100-106
- Romeeza Tahir, **Afzal N**, Nauman Javed, Afia Abbas, Kunwal Rauf. Discrepancies in the diagnosis of methicillin resistant *Staphylococcus aureus* among different hospitals of Lahore Pakistan. *The International Medical Journal*: Vol. 8 No 2, Dec 2009: 7-10
- Nadia Rashid, Asim Mumtaz, Saqib Mehmood, **Afzal N**, Salma Haq, Tanveer Ahmad. Assessment of Thyroid Dysfunction in Down syndrome patients. *Pak Paed J* Dec 2009; 33(4): 211-7
- Numan J, **Afzal N**, Romeeza T. *In vitro* phagocytosis of methicillin resistant and methicillin sensitive *Staphylococcus aureus* by human polymorphonuclear leucocytes. *Journal of Ayub Medical College* 2009;21(2):49-52
- Romeeza T, Naeem R, **Afzal N**. Multiplex Polymerase Chain Reaction Based Typing of Staphylococcal Chromosomal Cassette *mec* of Methicillin Resistant *Staphylococcus aureus* from Selected Hospitals in Lahore. *The International Medical Journal* volume 9 No 1, June 2010: 5-8
- Sara K, **Afzal N**. Anti-CCP Antibodies: an emerging marker for the early diagnosis of Rheumatoid Arthritis. *The International Medical Journal* volume 9 No 1, June 2010: 63-66
- Maria Arif, **Afzal N**, Aizaz Mand, Waqas Sami, Khursheed Javaid, Sarwar Abbas, Sarah Karim. Frequency of Antineutrophil Cytoplasmic Antibody in Glomerulonephritis Patients. *Biomedica* 2010; Vol 26. Jan-Jun 45-49
- Asim Mumtaz, **Afzal N**, Waqas Sami, Romeeza Tahir, Khursheed Javeed, Saqib Mehmood. Evaluation of four ELISA based immunoassays for the detection of IgM antibodies against dengue virus. *Biomedica* 2010; Vol 26. Jan-Jun 54-57
- Farhana S, Tawwab S, **Afzal N**. Association of interleukin-4 and IgE levels with LDL oxidation in atherosclerosis. *Iran J Immunol* June 2010; Vol 7 No 2
- Gul Afshan, **Afzal N**, Sadia Qureshi. Establishment of CD4<sup>+</sup> CD25<sup>HI</sup> T Cells Reference intervals in Healthy Adult Pakistani Males versus Females. *J App Pharm* 2010; 4(2): 104-111
- Shahid Hussain, **Afzal N**, Khursheed Javaid, Muhammad Ikram Ullah, Tanveer Ahmad, Saleem-uz-Zaman. Level of Interferon Gamma in the Blood of Tuberculosis Patients. *Iran J Immunol* December 2010; Vol 7 No 4
- **Afzal N**, Khursheed Javeed, Saleem-uz-Zaman, Asim Mumtaz, Rameeza Tahir, Shahid Hussain, Ikram. Percentage of CD4<sup>+</sup> and CD8<sup>+</sup> T lymphocytes in the blood of tuberculosis patients. *J Ayub Med Coll Abbottabad* 2010;22(4)
- Numan Javed, **Afzal N**, Romeeza Tahir, Afia Abbas. Prevalence of Multiple Drug Resistant *Staphylococcus aureus* in different hospitals of Lahore. *Pakistan J. Zool.* 2011; vol. 43 (4), 815-818
- **Afzal N**, Sarwar Abbas, Azazmand, Maria Arif, Khursheed Javeed. Effect of Hepatitis C virus on C-Reactive Protein and Interleukin-6 in Hemodialysis Patients. *Iranian Journal of Kidney Diseases* May 2011; Vol 5, No 3 182-86
- **Afzal N**, Sara Karim, Tafazzul-e-Haque Mahmud, Waqas Sami, Maria Arif, Sarwar Abbas. Evaluation of Anti-CCP Antibody for Diagnosis of Rheumatoid Arthritis. *Clinical Lab* 2011; 57; 895-899

- Amna Habib, **Afzal N**, Mehreen Ahmed, Afia Abbas, Romeeza Tahir Quantification of Serum IgA of Coeliac Disease Patients. *Biomedica* Vol 27.:26-28 Jan-Jun 2011
- Mehreen Ahmad, **Afzal N**, Amna Habib, Romeeza Tahir, Khursheed Rana, Afia Abbas Detection of anti-*Helicobacter pylori* IgG antibodies in Healthy Subjects. *Biomedica* Vol 27: 42-45 Jan-Jun 2011
- Jahan **S**, Khaliq **S**, **Afzal N**, Mujtiba G, Ijaz B, Ahmad W and Hassan S “Regulation of Apoptosis by HCV” *IJAVMS*. Vol 5, Issue 4, 2011: 438 - 443
- **Afzal N**, Romeeza T. Shah Jahan. Cytokine: An ever expanding area; review article. *Biological and Biomedical Reports*. 2012, 2(1), 37-43
- Gul Afshan, **Afzal N**, Sadia Qureshi. CD4<sup>+</sup>CD25<sup>hi</sup> Regulatory T cells in healthy males and females mediate gender difference in the prevalence of autoimmune diseases. *Clin. Lab*. 2012;58:567-571
- Shah Jahan, Usman A Ashfaq, Muhammad Qasim, Saba Khaliq, Muhammad Javed Saleem, **Afzal N**. Hepatitis C Virus to Hepatocellular Carcinoma. *Infectious Agents and Cancer* 2012, 7:2 doi:10.1186/1750-9378-7-2
- Shah Jahan, Usman A. Ashfaq, Saba Khaliq, Baila Samreen, **Afzal N**. Dual behavior of HCV Core gene in regulation of apoptosis is important in progression of HCC. *Infection, Genetics and Evolution* xxx (2012) xxx-xxx
- Baila Samreen, Saba Khaliq, Usman Ali Ashfaq, Mahwish Khan, **Afzal N**, Muhammad Aiman Shahzad, Sabeen Riaz, Shah Jahan. Hepatitis C virus entry: Role of host and viral factors. *Infection, Genetics and Evolution*. 2012: 12; 1699–1709
- **Afzal N**, Nagi AH, Imran M, Zafar A, Musawar A, Tahir R, Abbas S, Abbas A, Zaman S, Jahan S. Association of Alpha-2 Beta-1 Integrin Polymorphism with Retinopathy in Diabetic Patients. *J Diabetes & Metab* 2012, 3: 9
- **Afzal N**, Javed K, Sami W, Zafar A, Jahan S, Zaman S, Nagi AH. Inverse relationship of serum IL-17 with type-II diabetes retinopathy. *J Clin Lab*. 2013;59(11-12):1311-17
- **Afzal N**, Javaid K, Zaman S, Zafar A, Nagi AH. Enumeration of CD4<sup>+</sup>CD25<sup>+</sup> T regulatory cells in type-II diabetes retinopathy. *Pak J Pharm Sci*. 2014. Vol 27 (5); 1191-97.
- **Afzal N**, Javaid K, Hussain S, Adahmi S, Sami W, Malik I. Inverse correlation of Interferon – gamma and CD8<sup>+</sup> T Lymphocytes in Tuberculosis Patients. *Majmaah Journal of Health Sciences* 2014; 2(1), 14-19
- **Afzal N**, Zaman S, Asghar A, Javed K, Shahzad F, Zafar A, Nagi AH. Negative Association of Serum IL-6 and IL-17 with Type-II Diabetes Retinopathy. *Iran J Immunol*. 2014: 11(1); 40-43
- Shahzad F, **Afzal N**, Naz F, Javed K, Latif W, Zafar A. Decreased percentage of natural T-regulatory cells in type-2 diabetes mellitus. *Online Journal of BioSciences and Informatics*, 2014 3(1): 4542-467
- **Afzal N**, Zaman S, Shahzad F, Javaid K, Zafar A, Nagi AH. Immune mechanisms in type-II diabetic retinopathy. *JPMA*. 2015: 65(2); 159-163.
- Tufail R, **Afzal N**, Javaid K, Khaliq S, Tahir R, Abbas A, Latif W, Sami W, Zafar A. Enumeration of NK cells in patients of type-II diabetes mellitus. *Majmaah Journal of Health Sciences* 2014; 2(2), 23-27.



- **Afzal N**, Shehzad F, Rasheed S. Systemic Lupus Erythematosus – An Immunological Disorder: Clinical Presentations and Therapeutic Options. Biomedica 2014; 3, 220-28.
- Tufail R, **Afzal N**, Javeid K, Shahzad F, Khaliq S, Abbas A, Latif W, Tahir R. Percentage of T Cells in Diabetes Mellitus Patients Managed with different Treatment Modalities. SMU Medical Journal. 2015; 2(1). 139-149.
- Riaz M, **Afzal N**, Mahmud H T, Shahzad F, Rasheed S, Rasheed A. The high percentages of anti-thyroid antibodies positive SLE patients at Sheikh Zayed Hospital Lahore Pakistan. Majmaah Journal of Health Sciences 2015; 3(1), 28-32.
- Javaid K, **Afzal N**, Adhami S, Khaliq S, Jahan S, Latif W, Khaliq S. Increased Frequency of HLA-DRB1\*12 in Asthma Patients Visiting A Teaching Hospital Lahore, Pakistan. IJCR. 2015; 7 (4):14476-80.

### ***PERSONAL***

Born in October 1961, married with two children

### ***REFEREES***

Available on request