

**ImmunoCure Center for Inflammatory Diseases**  
Consultant Rheumatology and Immunogenetics  
Suite # 102, Bldg 24-C, Lane 1, Kh-e-Ittehad, DHA-6  
Karachi, Sindh, Pakistan

msaeed@immunocure.pk  
Website: immunocure.pk

## Mohammad Saeed, M.D.

### Education

- Jul 2010 – Jun 2012* *University of Arkansas for Medical Sciences*  
**Fellowship, Rheumatology**  
Little Rock, Arkansas, United States
- Sep 2010 – Jun 2011* *Boston University, USSONAR Program*  
**Fellowship, Musculoskeletal Ultrasound**  
Boston, Massachusetts, United States
- Jul 2010 – Jun 2012* *University of Arkansas for Medical Sciences*  
**Fellowship, Immunology**  
Little Rock, Arkansas, United States
- Jun 2006 – Jun 2009* *University of Arkansas for Medical Sciences*  
**Residency, Internal Medicine**  
Little Rock, Arkansas, United States
- Jun 2004 – Jun 2006* *Northwestern University*  
**Fellowship, Neurogenetics**  
Chicago, Illinois, United States
- Sep 1995 – Sep 2000* *Aga Khan University*  
**MBBS, Medicine**  
Karachi, Sindh, Pakistan

### Work Experience

- Jun 2022– to date* **ImmunoCure Center for Inflammatory Diseases**  
**CEO, Consultant Rheumatology & Immunogenetics**  
Karachi, Sindh, Pakistan
- Jun 2017– Jun 2022* **ImmunoCure**  
**Partner, Consultant Rheumatology & Immunogenetics**  
Karachi, Sindh, Pakistan
- Apr 2014 – Jun 2017* **Medlife Clinic and South City Hospital**  
**Consultant Rheumatologist**  
Karachi, Sindh, Pakistan
- Oct 2012 – Mar 2014* **Liaquat National Hospital**  
**Consultant Rheumatologist**

Karachi, Sindh, Pakistan

*Jul 2012 – Feb 2017* **Nephropath (Arkana Labs)**  
**Staff Scientist, Genomics**  
Little Rock, Arkansas, United States

*Jul 2011 – Jun 2012* **University of Arkansas for Medical Sciences**  
**Chief Fellow, Rheumatology**  
Little Rock, Arkansas, United States

*Jul 2009 – Jun 2010* **University of Arkansas for Medical Sciences**  
**Assistant Professor, Internal Medicine**  
Little Rock, Arkansas, United States

*Jan 2002 – Jun 2004* **Aga Khan University, Pakistan**  
**Instructor, Biochemistry and Genetics**  
Karachi, Sindh, Pakistan

*Oct 2000 – Nov 2001* **Aga Khan University Hospital, Pakistan**  
**Intern**  
Karachi, Sindh, Pakistan

## Professional Memberships

European Lupus Society - SLEuro (Member)  
Health Research Advisory Board, Pakistan (Executive Member - 2019)  
Pakistan Society for Rheumatology (Joint Secretary and Executive Member)  
Arkansas State Medical Board (License: E-6012)  
American College of Rheumatology (ID: 85484)  
American Society of Human Genetics (ID: 082468)  
American College of Physicians (ID: 01343284)  
American Medical Association (ID: 70425000649)  
Pakistan Medical and Dental Council (ID: 38626-S)

Member Editorial Board Journal of Pakistan Medical Association (2002 – 2011)  
Reviewer: Stroke, Circulation, J. Rheumatology, Scientific Reports, JPMA

## Awards & Grants

*Jan 2010* Circle of Excellence Award: Best Physician - Inpatient (UAMS)

*Jun 2009* Arkansas Biosciences Institute Grant (USD 55000): Immune mechanisms of statins in Rheumatoid Arthritis

*Jun 2009* UAMS Clinical Care and Translational Research Grant (USD 25000) Co-I: Genetics of Atherosclerosis

- Sep 2006 National Institutes of Health (NIH) RO1 ES014469-01A1 Grant (USD 1.8 million)  
Co-I: To investigate Gene-Environment interactions in ALS
- Jul 2003 Representative Pakistan. 53<sup>rd</sup> Nobel Laureates Meeting, Lindau, Germany
- Jul 2002 Aga Khan University Grants Commission, Seed Grant (USD 10000). Genetics of Stroke
- Oct 1999 Scholarship: Commonwealth Foundation Medical Elective Bursary. Singapore
- Nov 1995 Essay Writing Travel Award. Turkish Radio and Television

## Book(s)

Mohammad Saeed. Python - The Logo Way. December 2022. DOI:10.5281/zenodo.7403043

## Journal Publications

<https://www.researchgate.net/profile/Mohammad-Saeed-5>

Saeed M, Ibáñez-Costa A, Patiño-Trives AM, Muñoz-Barrera L, Collantes Estévez E, Aguirre MÁ, López-Pedraza C. Expression of DDX11 and DNM1L at the 12p11 Locus Modulates Systemic Lupus Erythematosus Susceptibility. *Int J Mol Sci*. 2021 Jul 16;22(14):7624. doi: 10.3390/ijms22147624. PMID: 34299244.

Saeed M. Fractal genomics of SOD1 evolution. *Immunogenetics*. 2020 Dec;72(9-10):439-445. doi: 10.1007/s00251-020-01184-4. Epub 2020 Nov 25. PMID: 33237378.

Mohammad Saeed: *Genomic convergence of locus-based GWAS meta-analysis identifies AXIN1 as a novel Parkinson's gene*. *Immunogenetics* 09/2018; 70(9). DOI:10.1007/s00251-018-1068-0

Mohammad Saeed: *Locus and gene-based GWAS meta-analysis identifies new diabetic nephropathy genes*. *Immunogenetics* 06/2018; 70(6): 347-353. DOI: 10.1007/s00251-017-1044-0

Mohammad Saeed: *Novel linkage disequilibrium clustering algorithm identifies new lupus genes on meta-analysis of GWAS datasets*. *Immunogenetics* 02/2017; 69(5). DOI:10.1007/s00251-017-0976-8

Mohammad Saeed: *Lupus pathobiology based on genomics*. *Immunogenetics* 12/2016; 69(1), DOI:10.1007/s00251-016-0961-7

Lubna Nazir, Shafique Rehman, Amir Riaz, Mohammad Saeed, Tahira Perveen: *Frequency of low bone mineral density in spondyloarthritis presenting at a tertiary care hospital*. *Journal of the Pakistan Medical Association* 09/2015; 65(9):973-8.

Lubna Nazir, Mohammad Saeed: *The calcium invasion: Calciphylaxis in Lupus*. *Journal of the Pakistan Medical Association* 04/2015; 65(4):427-8.

Rehan Rais, Mohammad Saeed, Rimsha Haider, Zahra Jassani, Amir Riaz, Tahira Perveen: *Rheumatoid arthritis clinical features and management strategies at an urban tertiary facility in Pakistan*. *Journal of the Pakistan Medical Association* 12/2014; 64(12):1435-7.

M Saeed, M L Beggs, P D Walker, C P Larsen: *PLA2R-associated membranous glomerulopathy is modulated by common variants in PLA2R1 and HLA-DQA1 genes*. *Genes and Immunity* 09/2014; 15(8), DOI:10.1038/gene.2014.50

Christopher P Larsen, Marjorie L Beggs, Mohammad Saeed, Josephine M Ambruzs, L Nicholas Cossey,

- Nidia C Messias, Patrick D Walker, Barry I Freedman: *Histopathologic findings associated with APOL1 risk variants in chronic kidney disease*. *Modern Pathology* 08/2014; 28(1)., DOI:10.1038/modpathol.2014.92
- Christopher P Larsen, Marjorie L Beggs, Patrick D Walker, Mohammad Saeed, Josephine M Ambruzs, Nidia C Messias: *Histopathologic Effect of APOL1 Risk Alleles in PLA(2)R-Associated Membranous Glomerulopathy*. *American Journal of Kidney Diseases* 04/2014; 64(1). DOI:10.1053/j.ajkd.2014.02.024
- Christopher P Larsen, Marjorie L Beggs, Mohammad Saeed, Patrick D Walker: *Apolipoprotein L1 Risk Variants Associate with Systemic Lupus Erythematosus-Associated Collapsing Glomerulopathy*. *Journal of the American Society of Nephrology* 03/2013; 24(5)., DOI:10.1681/ASN.2012121180
- Mohammad Saeed Khan, Meghana Bansal, Abhishek Agarwal: *Dysphagia due to cervical osteophytes*. *The Journal of the Arkansas Medical Society* 05/2012; 108(12):278-9.
- Mohammad Saeed, Grace E Brown, Abhishek Agarwal, Donna Pellowski, Jennifer Jacks, Hazel K Liverett, Keyur S Vyas: *Autoimmune Clustering Sweet Syndrome, Hashimoto Thyroiditis, and Psoriasis*. *Journal of clinical rheumatology: practical reports on rheumatic & musculoskeletal diseases* 02/2011; 17(2):76- 8., DOI:10.1097/RHU.0b013e31820e624f
- M Saeed, Y Yang, H-X Deng, W-Y Hung, N Siddique, L Dellefave, C Gellera, P M Andersen, T Siddique: *Age and founder effect of SOD1 A4V mutation causing ALS*. *Neurology* 02/2009; 72(19):1634-9., DOI:10.1212/01.wnl.0000343509.76828.2a
- Senda Ajroud-Driss, Mohammad Saeed, Humaira Khan, Nailah Siddique, W Y Hung, Robert Sufit, Scott Heller, Jennifer Armstrong, Pat Casey, Teepu Siddique, Thomas J Lukas: *Riluzole metabolism and CYP1A1/2 polymorphisms in patients with ALS*. *Amyotrophic lateral sclerosis: official publication of the World Federation of Neurology Research Group on Motor Neuron Diseases* 11/2007; 8(5):305-9., DOI:10.1080/17482960701500650
- Perwaiz Iqbal, Yousuf Fa, M Saeed, M Perwaiz Iqbal, Fa Yousuf, S Perveen, M Shafiq, J Sajid, Pm Frossard: *Interactions and associations of paraoxonase gene cluster polymorphisms with myocardial infarction in a Pakistani population*. *Clinical Genetics* 01/2007; 71:238-244.
- M Saeed, N Siddique, WY Hung, E Usacheva, E Liu, R L Sufit, S L Heller, J L Haines, M Pericak-Vance, T Siddique: *Paroxonase cluster polymorphisms are associated with sporadic ALS*. *Neurology* 10/2006; 67(5):771-6., DOI:10.1212/01.wnl.0000227187.52002.88
- W Chen, M Saeed, H Mao, N Siddique, L Dellefave, W-Y Hung, H-X Deng, R L Sufit, S L Heller, J L Haines, M Pericak-Vance, T Siddique: *Lack of association of VEGF promoter polymorphisms with sporadic ALS*. *Neurology* 09/2006; 67(3):508-10., DOI:10.1212/01.wnl.0000227926.42370.04
- Han-Xiang Deng, Yong Shi, Yoshiaki Furukawa, Hong Zhai, Ronggen Fu, Erdong Liu, George H Gorrie, Mohammad S Khan, Wu-Yen Hung, Eileen H Bigio, Thomas Lukas, Mauro C Dal Canto, Thomas V O'Halloran, Teepu Siddique: *Conversion to the amyotrophic lateral sclerosis phenotype is associated with intermolecular linked insoluble aggregates of SOD1 in mitochondria*. *Proceedings of the National Academy of Sciences* 06/2006; 103(18):7142-7., DOI:10.1073/pnas.0602046103
- Mohammed Saeed: *Fractals Analysis of Cardiac Arrhythmias*. *The Scientific World Journal* 10/2005; 5:691-701., DOI:10.1100/tsw.2005.81
- M Saeed, S F Mekan, MA Rabbani, F M Arain, M Arif, S Shaharyar: *Angiotensin converting enzyme (ACE) gene polymorphisms and lupus disease severity: A promising link*. *Annals of the Rheumatic Diseases*

02/2005; 64(1):164-5., DOI:10.1136/ard.2004.020834

M Saeed Mahmood, Zainul Sajadeen Urfy Mian, Atif Afzal, Philippe M Frossard: *G-protein beta-3 subunit gene 825C>T dimorphism is associated with left ventricular hypertrophy but not essential hypertension*. Medical science monitor: international medical journal of experimental and clinical research 02/2005; 11(1):CR6-9.

Mohammad Saeed: *ACE and subarachnoid hemorrhage: strategies for genetics of stroke*. Stroke 01/2005; 35(12):2752-3; author reply 2753.

Usman Ahmad, M Saeed Mahmood, Safiuddin Siddiqui, Philippe M Frossard: *Effects of apolipoprotein E polymorphism on the development of stroke*. Journal of the Pakistan Medical Association 01/2005; 54(12):626-32.

M S Mahmood, N Kureshi, P M Frossard: *Gene markers and complex disorders: A review*. Journal of the Pakistan Medical Association 12/2004; 54(11):584-9.

Humaira M Khan, Mohammad Saeed: *Vitamin E in neurodegenerative diseases*. Journal of the College of Physicians and Surgeons--Pakistan: JCPSP 07/2004; 14(6):386.

Mohammad Saeed: *Editorial Comment--Unraveling the Pagodian Architecture of Stroke as a Complex Disorder*. Stroke 05/2004; 35(4):824-5., DOI:10.1161/01.STROKE.0000121646.23955.0f

M Perwaiz Iqbal, Saeed Mahmood, Naseema Mehboobali, Mohammad Ishaq, Tasnim Fatima, Saddiqa Parveen, Philippe Frossard: *Association study of the angiotensin-converting enzyme (ACE) gene G2350A dimorphism with myocardial infarction*. Experimental and Molecular Medicine 05/2004; 36(2):110-5., DOI:10.1038/emm.2004.16

M Saeed Mahmood, K Saboohi, S Osman Ali, A M Bokhari, P M Frossard: *Association of the angiotensin-converting enzyme (ACE) gene G2350A dimorphism with essential hypertension*. Journal of Human Hypertension 11/2003; 17(10):719-23., DOI:10.1038/sj.jhh.1001600

Muhammad Ali Javed, M Saeed Mahmood, Jamal Sajid, Philippe M Frossard: *Ethical issues in genetic research*. Journal of the College of Physicians and Surgeons--Pakistan: JCPSP 11/2003; 13(10):616., DOI:10.2003/JCPSP.616616

M Saeed Mahmood, A.H. Gilani, Afsheen Khwaja, Ayesha Rashid, M.K. Ashfaq: *The in vitro effect of aqueous extract of Nigella sativa seeds on nitric oxide production*. Phytotherapy Research 09/2003; 17(8):921-4., DOI:10.1002/ptr.1251

M Saeed Mahmood: *Dysfunctional families in Pakistan: Physicians' perspective*. Journal of the College of Physicians and Surgeons--Pakistan: JCPSP 07/2003; 13(6):366.

M A U Khan, M K Ashfaq, H S Zuberi, M S Mahmood, AH Gilani: *The in vivo anti-fungal activity of the aqueous extract from Nigella sativa seed*. Phytotherapy Research 02/2003; 17(2):183-6., DOI:10.1002/ptr.1146

M Mahmood, H S Zuberi, M K Ashfaq: *Nitric oxide mediated effect of cyclo-oxygenase inhibitors*. Journal of the Pakistan Medical Association 02/2001; 51(1):28-31.

B. Farooqi, F. Shareeq, Q.K. Rizvi, M. Khurshid, N. Ahmed, N. Siddiqa, H.S. Qureshi, M.S. Mahmood, M.K. Ashfaq: *Plasmid mediated antibacterial resistance in Salmonella typhi*.

M Saeed Mahmood, A.R Sarwari, M.A Khan, Z Sophie, E Khan, S Sami: *Infective Endocarditis and Septic Embolization with Ochrobactrum anthropi: Case Report and Review of Literature*. Journal of Infection 06/2000; 40(3):287-90., DOI:10.1053/jinf.2000.0644

## Conference Proceedings

Saeed M. PO.4.95. *Cluster-based genome-wide association meta-analysis in European and Chinese datasets for systemic lupus erythematosus*. Lupus Science & Medicine 2022;9:doi: 10.1136/lupus-2022-elm2022.120 (Stockholm, Sweden)

Saeed M, Pasha A, Azhar Rizvi SH, et al. PO.4.90. *Remission and clinical patterns of systemic lupus erythematosus (SLE) in southern pakistan: a retrospective cohort study*. Lupus Science & Medicine 2022;9:doi: 10.1136/lupus-2022-elm2022.116. (Stockholm, Sweden)

Mohammad Saeed: *Combined genome-wide association and gene-expression meta-analysis identifies novel psoriasis genes*. AB0016. Annals of the Rheumatic Diseases 2019; 78:1474-1475. (Madrid, Spain)

S H Azhar Rizvi, Tariq Gazdar, Aneela Pasha and Mohammad Saeed: *ANA subsets antibody profile of early undifferentiated arthritis (UA) in Pakistan*. AB1101. Annals of the Rheumatic Diseases 2019; 78:2014. (Madrid, Spain)

Mohammad Saeed Khan, Krishnaswamy Kannan, Robert Ortmann: *Apoptosis Mechanisms in Statin Therapy in Rheumatoid Arthritis*. American Association of Immunologists; 5/2012 (Boston, MA)

Mohammad Saeed Khan, Elizabeth Russell: *Musculoskeletal Ultrasound: New diagnostic modality in Scleroderma*. American College of Physicians; 6/2011 (Little Rock, Arkansas)

Mohammad Saeed Khan, Krishnaswamy Kannan, Robert Ortmann: *Simvastatin and Toll-Like Receptor-2 Mediated Signaling Augment Apoptosis and reactive Oxygen Species Associated Gene Expression in Rheumatoid Arthritis Synoviocytes*. American College of Rheumatology; 11/2011 (Chicago, Illinois)

M Khan, I Makhoul, Mohammad Saeed: *Effect of diabetes mellitus on age-at-onset and tumor stage of hepatocellular carcinoma..* American Society of Clinical Oncology; 06/2009. (Orlando, Florida)

E Rampersaud, Y Yang, W Chen, M Saeed, H Khan, J Armstrong, M Zheng, D Ma, R Sufit, S Heller, Y Jianhua, N Siddique, J L Haines, M A Pericak-Vance, T Siddique: *Large-scale investigation of xenobiotic metabolism candidate genes and related pathways in amyotrophic lateral sclerosis (ALS) identifies associations in KLHL1 and VIL2*. American Society of Human Genetics; 01/2008. (Philadelphia, PA)

Mohammad Saeed: *Paraoxonase gene cluster is associated with sporadic amyotrophic lateral sclerosis (SALS)..* American Academy of Neurology; 01/2006. (San Diego, California)

M Saeed, WJ Chen, HH Mao, N Siddique, L Dellefave, WY Hung, RL Sufit, SL Heller, JL Haines, M Pericak-Vance, T Siddique: *Polio virus receptor-related type 2 (PVRL2) gene is associated with sporadic amyotrophic lateral sclerosis*. 57th Annual Meeting of the American-Academy-of-Neurology; 03/2005 (Miami, Florida)

Mohammad Saeed: *Age of SOD1 A4V mutation causing ALS and founder effect..* American Society of Human Genetics; 01/2005 (Salt Lake City, Utah)

M A Bangash, D A Tregouet, M Saeed, H Zuberi, E Khan, S Khanum, J Sajid, A H Khan, A Hasan, F Abubakar, A A Khan, F Fecto, W Ahmed, T U Rehman, F Cambien, P M Frossard: *DNA*

*Polymorphisms in two Paraoxonase Genes (PON1 and PON2) are independently associated with increased risk of Ischemic Stroke in Pakistani patients.* American Society of Human Genetics; 01/2004 (Toronto)

Mohammad Saeed: *Acute Myocardial Infarction: Risk factors and management.* Aga Khan University Symposium.; 09/2000 (Karachi, Pakistan). Young Scientist Award

Mohammad Saeed: *Nitric Oxide Mediated Effect of Cyclo-oxygenase Inhibitors.* Aga Khan University Symposium.; 09/2000 (Karachi, Pakistan). Honorable Commendation Award.

## Research Statistics

*Publications*      64

*Citations*            1,649

## Skills & Activities

*Skills*      Rheumatology, Systemic Lupus Erythematosus, Autoimmune Disorders, Inflammatory Diseases, Genomics, Bioinformatics Analysis

*Languages*      English, Urdu

*Interests*      Python programming (software development), Urdu Poetry composition