

Curriculum Vitae

Amir A. Sadighi Akha, MD, DPhil

Personal Information

Email Address: sadighiakha.amir@mayo.edu

Present Academic Rank and Position

Assistant Professor of Laboratory Medicine and Pathology - Mayo Clinic
College of Medicine and Science 12/2013 - Present

Consultant - Division of Clinical Biochemistry & Immunology, Department of
Laboratory Medicine and Pathology, Mayo Clinic, Rochester, Minnesota 05/2016 - Present

Education

Don Bosco School (Andisheh), Tehran, Iran - Diploma 1970 - 1982

University of Tehran School of Medicine, Tehran, Iran - MD 1983 - 1991

Sir William Dunn School of Pathology & Keble College, University of Oxford, Oxford,
England - D.Phil, Immunology Supervisor: Simon V. Hunt, DPhil 1991 - 1996

The Johns Hopkins University School of Medicine, Baltimore, Maryland - Fellow,
Immunopathology & Paediatric Immunology Mentor: Noel R. Rose, MD, PhD 1996 - 1999

Certification

Board Certifications

American Board of Medical Laboratory Immunology (ABMLI)

Diplomate 2021 - 2023

New York State Department of Health

Certificate of Qualification (COQ) in Cellular and Diagnostic Immunology 2021 - 2023

Other Certifications

Mayo Clinic Quality Academy

Mayo Clinic Quality Fellow: Bronze Level Certification 2017

Honors and Awards

Iranian Presidential Certificate of Appreciation for graduation as the Top Graduate of the University of Tehran School of Medicine - The Presidency, Tehran, Iran 1991

Top Graduate - University of Tehran School of Medicine, Tehran, Iran 1991

Appointment to Keble College Senior Common Room- Hilary Term - Keble College, University of Oxford, Oxford, England 2004

Previous Professional Positions and Major Appointments

Junior assessor - Iranian Book of the Year Award, Tehran, Iran 1985

Intern-in-Chief of Medicine - University of Tehran School of Medicine, Tehran, Iran 1989

Intern-in-Chief of Obstetrics and Gynaecology - University of Tehran School of Medicine, Tehran, Iran 1989

Graduate Union representative - University of Oxford, Oxford, England
Committee for the Management of the University Language Centre 1992 - 1994

Research Associate - University of Michigan Medical School, Ann Arbor, Michigan 04/2000 - 04/2008

Member - Shock Center Laboratory for Anti-Geric Testing, Evaluation and Research (known as UM-LATER), University of Michigan Medical School, Ann Arbor, Michigan	2001 - 2003
Member - Institute of Christian Jewish Studies, Baltimore, Maryland Planning committee - "Dying Well: Medicine and Morality through Jewish, Christian, and Muslim Eyes"	2005
Research Investigator - University of Michigan Medical School, Ann Arbor, Michigan	05/2008 - 05/2013
Promotion to Research Assistant Professor - University of Michigan Medical School, Ann Arbor, Michigan	05/2013
Senior Associate Consultant - Division of Clinical Biochemistry & Immunology, Department of Laboratory Medicine and Pathology, Mayo Clinic, Rochester, Minnesota	05/2013 - 05/2016

Professional Memberships and Societies

Professional Memberships and Services

American Association of Immunologists Member	1997 - Present
American Society for Microbiology Member	2016 - Present
Association of Medical Laboratory Immunologists Member	2013 - Present
Committee Member, Scientific Affair Committee	2017 - 2021
Panel Co-Chair	2017 - 2021
Council Member	2022 - Present
British Society for Immunology Member	1993 - Present
British Transplantation Society Member	1993 - 2001
Clinical Immunology Society Member	2013 - Present
Committee Member, Diagnostic Laboratory Immunology	2018 - 2023
Federation of Clinical Immunology Societies Member	2013 - Present
Abstract Reviewer for Annual Meeting	2020 - Present
Chair of the Centers of Excellence Associate Director	2018 - Present
John Hopkins Medical and Surgical Association Member	1998 - Present
New York Academy of Science Member	1996 - Present
Oxford Union Society Member	1993 - Present

Journal Responsibilities

Journal Editorial Responsibilities

American Association for the Advancement of Science, Science of Aging Knowledge Environment (SAGE) Editorial Assistant	2001 - 2006
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Frontiers in Immunology Review Editor	2023 - Present
Journal of Immunological Methods Associate Editor	2020 - Present

Journal Other Responsibilities

Cellular Physiology and Biochemistry Ad Hoc Reviewer	2012 - 2013
Clinical Biochemistry Ad Hoc Reviewer	2018 - 2019
Clinical Chemistry Ad Hoc Reviewer	2015
Int'l Journal of Molecular Sciences Ad Hoc Reviewer	2012
Journals of Gerontology Series A: Biological Sciences and Medical Sciences Ad Hoc Reviewer	2009
Scientific Reports (Nature) Ad Hoc Reviewer	2016

Education Interests and Accomplishments**Teaching**

Specialised English Syllabus for Second Year Medical Students University of Tehran School of Medicine Tehran, Iran	1988 - 1990
Lectures on Basic Immunology for Interns and Residents University of Tehran School of Medicine Tehran, Iran	1988 - 1990
Practical Immunology Demonstrating in Practical Immunology Classes for Second Year Medical Students University of Oxford Oxford, England	1991 - 1993
Tutorials in Immunology Tutorials in Immunology for 3rd and 4th Year Biomedical Undergraduates University of Oxford Oxford, England	1992 - 1995
Practical Pathology Demonstrating in Practical Pathology classes for 2nd year medical students The John Hopkins University School of Medicine Baltimore, Maryland	1996 - 1997
Research Projects Supervising Research Projects of Rotating Undergraduate, Graduate and Medical Students University of Michigan Medical School Ann Arbor, Michigan	2000 - 2013
Multiple Myeloma M1 Immunology Sequence University of Michigan Medical School Ann Arbor, Michigan	2013
Hyper-IgM Syndrome M1 Immunology Sequence	2013

University of Michigan Medical School Ann Arbor, Michigan	
Diabetes Type I M1 Immunology Sequence University of Michigan Medical School Ann Arbor, Michigan	2013
Teaching Rotating Pathology Residents and Fellows from Allergy & Immunology, Clinical Chemistry, Renal Pathology, Rheumatology Mayo Clinic Rochester, Minnesota	2013 - Present
Overview of Immunology Medical Laboratory Science Programme, Immunology Syllabus Mayo Clinic Rochester, Minnesota	2014 - Present
Lymphocytes and Plasma Cells Medical Laboratory Science Programme, Immunology Syllabus Mayo Clinic Mayo Clinic; Rochester, Minnesota	2014 - Present
Defects in TLR and NF- κ B signalling Paediatric Immunodeficiency Review Talks, Division of Allergic Diseases Mayo Clinic Rochester, Minnesota	2015 - 2017
Inborn Errors of Human STATs Paediatric Immunodeficiency Review Talks, Division of Allergic Diseases Mayo Clinic Rochester, Minnesota	2015 - 2017
Primary Immunodeficiencies Medical Laboratory Science Programme, Immunology Syllabus Mayo Clinic Rochester, Minnesota	2018 - Present
Immunoproliferative Disorders Medical Laboratory Science Programme, Immunology Syllabus Mayo Clinic Rochester, Minnesota	2018 - Present
Transplantation Medical Laboratory Science Programme, Immunology Syllabus Mayo Clinic Rochester, Minnesota	2018 - Present
Laboratory Approach to Primary Immunodeficiencies Clinical Pathology Core Seminar Series Mayo Clinic Rochester, Minnesota	2019 - Present
Assessment of STAT Signalling in Primary Immunodeficiencies Paediatric Primary Immunodeficiency Educational Conference Mayo Clinic Rochester, Minnesota	11/2021
Laboratory Approach to Chronic Granulomatous Disease (CGD) Paediatric Primary Immunodeficiency Educational Conference Mayo Clinic Rochester, Minnesota	06/2022
Dendritic Cell and Monocyte Enumeration Paediatric Primary Immunodeficiency Educational Conference	09/2022

Mayo Clinic
Rochester, Minnesota

Academic Career Development

Clinical Trial for Immunologic Disease Course FOCiS 2015 San Diego, California	06/2015
Interventional Immunology Course FOCiS 2015 San Diego, California	06/2015
Computational Immunology Course FOCiS 2017 Chicago, Illinois	06/2017
Cancer Immunity and Immunotherapy FOCiS 2017 Chicago, Illinois	06/2017
AAI Course in Big Data Analysis in Immunology AAI Rockville, Maryland	09/2017
Systems Immunology FOCiS 2022 San Francisco, California	06/2022
Big Data in Immunology FOCiS 2022 San Francisco, California	06/2022

Institutional/Departmental Administrative Responsibilities, Committee Memberships and Other Activities

Mayo Clinic

Mayo Clinic Committees

Mayo Clinic Laboratory Medicine & Pathology Specialty Council

Information Management Planning Committee

SCC Soft Change Board

Consultant Member

2018 - Present

Tumour Immunology Lab Disease-Oriented Group (DOG)

Co-Chair

2015 - 2019

Mayo Clinic in Rochester

Department of Laboratory Medicine and Pathology

CPT Coding Oversight

Consultant Member

2014 - 2018

Division of Clinical Core Laboratory Services

CCLS Pediatric Clinical Programme

Member

2022 - Present

SoftFlow Oversight Subcommittee

Chair

2015 - Present

Presentations Extramural

National or International

Invited

Allergy: Immunology and Testing AMLI Clinical Laboratory Immunology Review and Update Course New Orleans, Louisiana	08/2015
Aging and the Immune System: An Overview AMLI Annual Meeting Denver, Colorado	08/2017
Laboratory Approach to Immunodeficiencies Clinical Updates in Allergy and Immunology, Mayo Clinic School of Professional Development San Diego, California	07/2018
The FOCIS Centre of Excellence at Mayo Clinic: An Overview FCE Directors Meeting, FOCIS 2019 Boston, Massachusetts	06/2019
Functional Testing for Primary Immunodeficiencies AACCC Annual Scientific Meeting and Clinical Lab Expo Virtual Meeting due to COVID pandemic	12/2020
Laboratory Approach to Innate Immune Disorders AMLI Annual Meeting Austin, Texas	08/2021
Laboratory Approach to Primary Immunodeficiencies Children and Women's Hospital of British Columbia Pathology and Laboratory Medicine Rounds Zoom Virtual Meeting	05/2022
Oral	
The Local Immune Response in a Mouse Model of Acute Clostridium difficile Infection Immunology 2012 (The annual meeting of the American Association of Immunologists) Boston, Massachusetts	05/2012
Regional	
Invited	
Signalling through the B Cell Antigen Receptor Sir William Dunn School of Pathology, University of Oxford Oxford, England	02/1995
Shi' ite Islam: A Layman's View The House of St. Gregory and St. Macrina Oxford, England	03/1995
The B Cell Calcium Channel Department of Biochemistry, University of Tehran School of Medicine Tehran, Iran	04/1995
Calcium Influx in Lymphocytes Department of Pathology, The John Hopkins University School of Medicine Baltimore, Maryland	07/1997
Oligo-/Monoclonal Gammopathy in Ataxia-Telangiectasia Division of Immunology, Beth Israel Deaconess Medical Centre, Harvard Medical School Boston, Massachusetts	06/1999

The Use of Flow-Cytometry in the Immunology of Ageing Flow Core/Becton Dickinson Flow-Cytometry Day, University of Michigan Medical School Ann Arbor, Michigan	06/2003
Enhancement of T Cell Function through Modifying Surface Glycoproteins Graduate Programme in Immunology Annual Retreat, University of Michigan Medical School Ann Arbor, Michigan	05/2007
The ER Stress Response in a Mouse Model of Longevity Five Decades of the Rose Lab Symposium, The John Hopkins University Bloomberg School of Public Health Baltimore, Maryland	06/2008
The Endoplasmic Reticulum Stress Response in Slow-Ageing Snell Dwarf Mice RCDC Seminar Series, Geriatrics Centre, University of Michigan Medical School Ann Arbor, Michigan	10/2008
The Unfolded Protein Response in a Mouse Model of Longevity Integrated Biomedical Sciences Seminars Series, Loma Linda University Loma Linda, California	06/2009
Innate Immunity and Pro-Survival Signalling in a Mouse Model of C. difficile Infection Pulmonary and Critical Care Medicine Research Conference Series, University of Michigan Medical School Ann Arbor, Michigan	08/2012
The Host Response in a Mouse Model of Acute C. difficile Infection Division of Clinical Biochemistry and Immunology, Mayo Clinic Rochester, Minnesota	11/2012
STAT3 and the Mucosal Response to C. difficile Infection Department of Biological Sciences Seminar Series, Sam Huston State University Huntsville, Texas	02/2014
Laboratory Tests for Assessing Innate Immune Function CBI, CCLS, BGL Seminar, Department of Laboratory Medicine and Pathology, Mayo Clinic Rochester, Minnesota	02/2015
The Mucosal Response to C. difficile Infection Immunology Grand Rounds, Department of Immunology, Mayo Clinic Rochester, Minnesota	02/2015
Functional Assessment of a Pathogenic Variant Allergy/Immunology Tuesday Case Conference, Allergy Division, Mayo Clinic Mayo Clinic; Rochester, Minnesota	11/2017
Monitoring Bone Marrow Transplantation in Patients with Primary Immunodeficiency Clinical Laboratory Collaborative Mankato, Minnesota	04/2023
Basophil Activation Test Presented jointly with Joshua Bornhorst, PhD and Attila Kumanovics, MD Allergy/Immunology Tuesday Case Conference, Allergy Division, Mayo Clinic Rochester, Minnesota	06/2023

Clinical Practice, Interests, and Accomplishments

Phenotypic and functional assessment of the immune system.

Supervised the development and implementation of the following clinical tests at Mayo:

1. DOCK8- Published Name: Deducator of Cytokinesis 8 (DOCK8) Deficiency, Blood

Development overseen by Abraham, RS and Sadighi Akha, AA

2. LRBA- Published Name: Lipopolysaccharide-Responsive Beige-Like Anchor Protein (LRBA) Deficiency, Blood

Development overseen by Abraham, RS and Sadighi Akha, AA

3. DCME- Published Name: Dendritic Cell and Monocyte Enumeration, Blood

Development overseen by Sadighi Akha, AA

Research Interests and Accomplishments

Lymphocyte signalling, ER stress, Immunodeficiency disorders, Biology of ageing, Inflammation

Research Grants Awarded

Active Grants

Federal

Co-Investigator	Identification and characterization of children with asthma-associated comorbidities through computational and immune phenotyping. Funded by National Heart, Lung, and Blood Institute. (R01 HL 126667)	02/2019 - 01/2024
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Completed Grants

Federal

Co-Investigator	Activation Defects in T Cells of Aged Mice. Funded by National Institute on Aging. (RO1 AG019619-06)	09/2007 - 08/2012
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Other

Principal Investigator	RCDC Junior Faculty Salary Support Award. Funded by Claude D. Pepper Older Americans Independence Centre, University of Michigan	07/2008 - 06/2009
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Bibliography

Peer-reviewed Articles

1. **Sadighi Akha AA**, Willmott NJ, Brickley K, Dolphin AC, Galione A, Hunt SV. Anti-Ig-induced calcium influx in rat B lymphocytes mediated by cGMP through a dihydropyridine-sensitive channel. *J Biol Chem*. 1996 Mar 29; 271(13):7297-300. PMID: 8631746
2. Korb LC, Mirshahidi S, Ramyar K, **Sadighi Akha AA**, Sadegh-Nasseri S. Induction of T cell anergy by low numbers of agonist ligands. *J Immunol*. 1999 Jun 1; 162(11):6401-9. PMID: 10352253
3. **Sadighi Akha AA**, Humphrey RL, Winkelstein JA, Loeb DM, Lederman HM. Oligo-/monoclonal gammopathy and hypergammaglobulinemia in ataxia-telangiectasia. A study of 90 patients. *Medicine (Baltimore)*. 1999 Nov; 78(6):370-81. PMID: 10575419
4. Afanasyeva M, Wang Y, Kaya Z, Stafford EA, Dohmen KM, **Sadighi Akha AA**, Rose NR. Interleukin-12 receptor/STAT4 signaling is required for the development of autoimmune myocarditis in mice by an interferon-gamma-independent pathway. *Circulation*. 2001 Dec 18; 104(25):3145-51. PMID: 11748115
5. Garcia GG, Berger SB, **Sadighi Akha AA**, Miller RA. Age-associated changes in glycosylation of CD43 and CD45 on mouse CD4 T cells. *Eur J Immunol*. 2005 Feb; 35(2):622-31. PMID: 15668924 DOI: 10.1002/eji.200425538
6. Miller RA, Berger SB, Burke DT, Galecki A, Garcia GG, Harper JM, **Sadighi Akha AA**. T cells in aging mice: genetic, developmental, and biochemical analyses. *Immunol Rev*. 2005 Jun; 205:94-103. PMID: 15882347 DOI: 10.1111/j.0105-2896.2005.00254.x
7. Berger SB, **Sadighi Akha AA**, Miller RA. A glycoprotein endopeptidase enhances calcium influx and cytokine production by CD4+ T cells of old and young mice. *Int Immunol*. 2005 Aug; 17(8):983-91. Epub 2005 Jul 6. PMID: 16000332 DOI: 10.1093/intimm/dxh279
8. **Sadighi Akha AA**, Miller RA. Signal transduction in the aging immune system. *Curr Opin Immunol*. 2005 Oct; 17(5):486-91. PMID: 16061371 DOI: 10.1016/j.coi.2005.07.004
9. Berger SB, **Sadighi Akha AA**, Miller RA, Garcia GG. CD43-independent augmentation of mouse T-cell function by glycoprotein cleaving enzymes. *Immunology*. 2006 Oct; 119(2):178-86. Epub 2006 Jun 23. PMID: 16805789 PMID: 1782345 DOI: 10.1111/j.1365-2567.2006.02419.x
10. **Sadighi Akha AA**, Berger SB, Miller RA. Enhancement of CD8 T-cell function through modifying surface glycoproteins in young and old mice. *Immunology*. 2006 Oct; 119(2):187-94. PMID: 16805788 PMID: 1782347 DOI: 10.1111/j.1365-2567.2006.02420.x
11. Rutkowski DT, Arnold SM, Miller CN, Wu J, Li J, Gunnison KM, Mori K, **Sadighi Akha AA**, Raden D, Kaufman RJ. Adaptation to ER stress is mediated by differential stabilities of pro-survival and pro-apoptotic mRNAs and proteins. *PLoS Biol*. 2006 Nov; 4(11):e374. PMID: 17090218 PMID: 1634883 DOI: 10.1371/journal.pbio.0040374
12. Garcia GG, **Sadighi Akha AA**, Miller RA. Age-related defects in moesin/ezrin cytoskeletal signals in mouse CD4 T cells. *J Immunol*. 2007 Nov 15; 179(10):6403-9. PMID: 17982027 PMID: 2441933
13. Salmon AB, **Sadighi Akha AA**, Buffenstein R, Miller RA. Fibroblasts from naked mole-rats are resistant to multiple forms of cell injury, but sensitive to peroxide, ultraviolet light, and endoplasmic reticulum stress. *J Gerontol A Biol Sci Med Sci*. 2008 Mar; 63(3):232-41. PMID: 18375872 PMID: 2710579
14. Sun L, **Sadighi Akha AA**, Miller RA, Harper JM. Life-span extension in mice by preweaning food restriction and by methionine restriction in middle age. *J Gerontol A Biol Sci Med Sci*. 2009 Jul; 64(7):711-22. Epub 2009 May 04. PMID: 19414512 PMID: 2691799 DOI: 10.1093/gerona/glp051
15. **Sadighi Akha AA**, Harper JM, Salmon AB, Schroeder BA, Tyra HM, Rutkowski DT, Miller RA. Heightened induction of proapoptotic signals in response to endoplasmic reticulum stress in primary fibroblasts from a mouse model of longevity. *J Biol Chem*. 2011 Sep 2; 286(35):30344-51. Epub 2011 Jul 12. PMID: 21757703 PMID: 3162393 DOI: 10.1074/jbc.M111.220541
16. Shreiner AB, Murdock BJ, **Sadighi Akha AA**, Falkowski NR, Christensen PJ, White ES, Hogaboam CM, Huffnagle GB. Repeated exposure to *Aspergillus fumigatus* conidia results in CD4+ T cell-dependent and -independent pulmonary arterial remodeling in a mixed Th1/Th2/Th17 microenvironment that requires interleukin-4 (IL-4) and IL-10. *Infect Immun*. 2012 Jan; 80(1):388-97. Epub 2011 Nov 07. PMID: 22064716 PMID: 3255686 DOI: 10.1128/IAI.05530-11

17. Erb-Downward JR, **Sadighi Akha AA**, Wang J, Shen N, He B, Martinez FJ, Gyetko MR, Curtis JL, Huffnagle GB. Use of direct gradient analysis to uncover biological hypotheses in 16s survey data and beyond. *Sci Rep*. 2012; 2:774. Epub 2012 Oct 26. PMID: 23336065 PMCID: 3540687 DOI: 10.1038/srep00774
18. Murdock BJ, Falkowski NR, Shreiner AB, **Sadighi Akha AA**, McDonald RA, White ES, Toews GB, Huffnagle GB. Interleukin-17 drives pulmonary eosinophilia following repeated exposure to *Aspergillus fumigatus* conidia. *Infect Immun*. 2012 Apr; 80(4):1424-36. Epub 2012 Jan 17. PMID: 22252873 PMCID: 3318426 DOI: 10.1128/IAI.05529-11
19. **Sadighi Akha AA**, Theriot CM, Erb-Downward JR, McDermott AJ, Falkowski NR, Tyra HM, Rutkowski DT, Young VB, Huffnagle GB. Acute infection of mice with *Clostridium difficile* leads to eIF2alpha phosphorylation and pro-survival signalling as part of the mucosal inflammatory response. *Immunology*. 2013 Sep; 140(1):111-22. PMID: 23668260 PMCID: 3809711 DOI: 10.1111/imm.12122
20. **Sadighi Akha AA**, McDermott AJ, Theriot CM, Carlson PE Jr, Frank CR, McDonald RA, Falkowski NR, Bergin IL, Young VB, Huffnagle GB. Interleukin-22 and CD160 play additive roles in the host mucosal response to *Clostridium difficile* infection in mice. *Immunology*. 2015 Apr; 144: (4)587-97. PMID: 25327211 PMCID: 4368165 DOI: 10.1111/imm.12414
21. **Sadighi Akha AA**. Aging and the immune system: An overview. *J Immunol Methods*. 2018 Dec; 463:21-26 Epub 2018 Aug 14 PMID: 30114401 DOI: 10.1016/j.jim.2018.08.005
22. Siddiqi AE, Liu AY, Charville GW, Kunder CA, Uzel G, **Sadighi Akha AA**, Oak J, Martin B, Sacha J, Lewis DB, Gernez Y. Disseminated *Pneumocystis jirovecii* Infection with Osteomyelitis in a Patient with CTLA-4 Haploinsufficiency. *J Clin Immunol* 2020 Feb; 40 (2):412-414 Epub 2020 Jan 18 PMID: 31955317 DOI: 10.1007/s10875-020-00748-z
23. Chitty-Lopez M, Westermann-Clark E, Dawson I, Ujhazi B, Csomos K, Dobbs K, Le K, Yamazaki Y, **Sadighi Akha AA**, Chellapandian D, Oshrine B, Notarangelo LD, Sunkersett G, Leiding JW, Walter JE. Asymptomatic Infant With Atypical SCID and Novel Hypomorphic RAG Variant Identified by Newborn Screening: A Diagnostic and Treatment Dilemma. *Front Immunol*. 2020; 11:1954 Epub 2020 Sept 29 PMID: 33117328 PMCID: 7552884 DOI: 10.3389/fimmu.2020.01954
24. **Sadighi Akha AA**, Tschumper RC, Mills JR, Isham CR, Witty EE, Viswanatha DS, Dasari S, Snyder MR, Murray DL, Katzmann JA, Jelinek DF, Willrich MAV. A rare case of selective Igkappa chain deficiency: Biologic and clinical implications. *J Allergy Clin Immunol* 2020 Nov; 146 (5):1208-1210.e6 Epub 2020 Apr 08 PMID: 32278584 DOI: 10.1016/j.jaci.2020.02.023
25. Knight V, Askar MZ, Ntrivalas E, Nandiwada SL, Peterson LK, Tebo AE, Kadkhoda K, Schmitz JL, Naides SJ, Snyder MR, **Sadighi Akha AA**. Highlights of the 33rd annual scientific meeting of the Association of Medical Laboratory Immunologists (AMLI). *J Immunol Methods*. 2021 May; 492:112994 Epub 2021 Feb 21 PMID: 33626382 PMCID: 7959703 DOI: 10.1016/j.jim.2021.112994
26. Knight V, Heimall JR, Chong H, Nandiwada SL, Chen K, Lawrence MG, **Sadighi Akha AA**, Kumanovics A, Jyonouchi S, Ngo SY, Vinh DC, Hagin D, Forbes Satter LR, Marsh RA, Chiang SCC, Willrich MAV, Frazer-Abel AA, Rider NL. A Toolkit and Framework for Optimal Laboratory Evaluation of Individuals with Suspected Primary Immunodeficiency. *J Allergy Clin Immunol Pract*. 2021 Sep; 9 (9):3293-3307.e6 Epub 2021 May 24 PMID: 34033983 DOI: 10.1016/j.jaip.2021.05.004
27. **Sadighi Akha AA**, Kumanovics A. Anti-cytokine autoantibodies and inborn errors of immunity. *J Immunol Methods*. 2022 Sep; 508:113313 Epub 2022 July 09 PMID: 35817172 DOI: 10.1016/j.jim.2022.113313
28. Byeon SK, Madugundu AK, Garapati K, Ramarajan MG, Saraswat M, Kumar-M P, Hughes T, Shah R, Patnaik MM, Chia N, Ashrafzadeh-Kian S, Yao JD, Pritt BS, Cattaneo R, Salama ME, Zenka RM, Kipp BR, Grebe SKG, Singh RJ, **Sadighi Akha AA**, Algeciras-Schimnich A, Dasari S, Olson JE, Walsh JR, Venkatakrisnan AJ, Jenkinson G, O'Horo JC, Badley AD, Pandey A. Development of a multiomics model for identification of predictive biomarkers for COVID-19 severity: a retrospective cohort study. *Lancet Digit Health*. 2022 Sep; 4 (9):e632-e645 Epub 2022 July 11 PMID: 35835712 PMCID: 9273185 DOI: 10.1016/S2589-7500(22)00112-1
29. Kumanovics A, **Sadighi Akha AA**. Flow cytometry for B-cell subset analysis in immunodeficiencies. *J Immunol Methods*. 2022 Oct; 509:113327 Epub 2022 Aug 05 PMID: 35934071 DOI: 10.1016/j.jim.2022.113327
30. **Sadighi Akha AA**, Csomos K, Ujhazi B, Walter JE, Kumanovics A. Evolving Approach to Clinical Cytometry for Immunodeficiencies and Other Immune Disorders. *Clin Lab Med*. 2023 Sep; 43 (3):467-483 Epub 2023 June 09 PMID: 37481324 DOI: 10.1016/j.cll.2023.05.002

Books

1. **Sadighi Akha AA**. Textbook of Immunology. (Authorised Persian translation) Emil R. Unanue & Baruj Benacerraf. 2nd ed. Tehran, Iran: 1986.

Audio/Video/CD-ROM/etc.

1. **Sadighi Akha AA**. Dendritic Cell Enumeration Test Answers From the Lab, Mayo Clinic Laboratories.2020;
2. **Sadighi Akha AA**. Primary T cell Immunodeficiencies AACC Pearls of Laboratory Medicine.2020;

Abstracts

1. **Sadighi Akha AA**, Willmott NJ, Watson SP, Galione A, Hunt SV. Anti-Ig induced calcium influx in rat B lymphocytes is mediated by a dihydropyridine-sensitive channel. 12th European Immunology Meeting. Barcelona, Spain. June 1994.
2. **Sadighi Akha AA**, Willmott NJ, Watson SP, Galione A, Hunt SV. Regulation of calcium influx in rat B lymphocytes. EMBO Practical and Lecture Course Optical Probes for Intracellular Signalling in Living Cells. Cambridge, England. July 1994.
3. **Sadighi Akha AA**, Willmott NJ, Brickley K, Dolphin AC, Galione A, Hunt SV. Anti-Ig induced calcium influx in rat B lymphocytes through a dihydropyridine-sensitive channel with cGMP as a second messenger. British Society for Immunology Spring Meeting. Birmingham, England. March 1995.
4. **Sadighi Akha AA**, Humphrey RL, Winkelstein JA, Lederman HM. Hypergammaglobulinemia and oligo-/monoclonal gammopathy in ataxia-telangiectasia. Experimental Biology 1998. San Francisco, CA. April 1998.
5. **Sadighi Akha AA**, Vladut-Talor M, Petri M, Humphrey RL, Burek CL, Rose NR. Comparative evaluation of kits from two companies for quantitation of anti-cardiolipin and anti-b2 GPI antibodies. 11th Annual Meeting of the Association of Medical Laboratory Immunologists. Montreal, Canada. July 1998.
6. Brownsill KW, **Sadighi Akha AA**, Mines RH, Hunt SV. Effect of dihydropyridines as putative calcium channel blocking drugs on rat lymphocyte proliferation. FASEB Summer Research Conference Calcium and Cell Function. Snowmass, CO. July 1998.
7. Afanasyeva M, Wang Y, Kaya Z, **Sadighi Akha AA**, Rose NR. Exacerbation of experimental autoimmune myocarditis with subsequent development of dilated cardiomyopathy in IFN- γ -deficient mice. Keystone Symposium Regulation of Immunity and Autoimmunity. Keystone, CO. January 2001.
8. Afanasyeva M, Wang Y, Kaya Z, Dohmen KM, **Sadighi Akha AA**, Rose NR. IL-12 receptor/Stat4 signaling is required for the development of autoimmune heart disease in mice by an IFN- γ -independent pathway. 1st Annual Meeting of the Federation of Clinical Immunology Societies. Boston, MA. May 2001.
9. Berger SB, **Sadighi Akha AA**, Garcia GG, Miller RA. A glycoprotein endopeptidase enhances calcium influx and cytokine production by CD4+ T cells of old and young mice. 17th Annual AFAR Grantee Conference. Washington, DC. November 2004.
10. Garcia GG, Berger SB, **Sadighi Akha AA**, Miller RA. Age-related changes in the glycosylation of surface proteins could be responsible for the age-related decline of lymphocyte function. 17th Annual AGAR Grantee Conference. Washington, DC. November 2004.
11. Berger SB, **Sadighi Akha AA**, Miller RA. A glycoprotein endopeptidase enhances calcium influx and cytokine production by CD4+ T cells of old and young mice. Experimental Biology 2005. San Diego, CA. April 2005.
12. Garcia GG, Berger SB, **Sadighi Akha AA**, Miller RA. Age-associated changes in glycosylation of CD43 and CD45 on mouse CD4+ T cells. 4th Annual University of Michigan-Wayne State University Institute of Gerontology Poster Session. Detroit, MI. April 2005.
13. Berger SB, **Sadighi Akha AA**, Miller RA, Garcia GG. CD43-independent augmentation of mouse T cell function by glycoprotein cleaving enzymes. Geriatrics Centre Research Symposium, University of Michigan Medical School. Ann Arbor, MI. April 2006.
14. **Sadighi Akha AA**, Berger SB, Miller RA. Enhancement of CD8 T cell function through modifying surface glycoproteins in young and old mice. Geriatrics Centre Research Symposium, University of Michigan Medical School. Ann Arbor, MI. April 2006.
15. **Sadighi Akha AA**, Berger SB, Miller RA. Enhancement of CD8 T cell function through modifying surface glycoproteins in young and old mice. Immunology 2006. Boston, MA. May 2006.

16. **Sadighi Akha AA**, Grolleau-Julius A, Yung RL, Miller RA. Enhancement of human T cell function through modifying surface glycoproteins. 5th Annual Pathology Research Symposium, University of Michigan Medical School. Ann Arbor, MI. November 2006.
17. **Sadighi Akha AA**, Salmon AB, Miller RA. Heightened sensitivity of fibroblasts from Snell dwarf mice to ER stress. Geriatrics Centre Research Symposium, University of Michigan Medical School. Ann Arbor, MI. April 2007.
18. **Sadighi Akha AA**, Salmon AB, Schroeder BA, Miller RA. The unfolded protein response in slow-ageing Snell dwarf mice. Geriatrics Centre Research Symposium, University of Michigan Medical School. Ann Arbor, MI. April 2009.
19. **Sadighi Akha AA**, Theriot CM, McDermott AJ, Reeves AE, Young VB, Huffnagle GB. The local and systemic immune response in a mouse model of acute *Clostridium difficile* infection. CLOSPath 7. Ames, IA. October 2011.
20. **Sadighi Akha AA**, Theriot CM, McDermott AJ, Reeves AE, Young VB, Huffnagle GB. The local immune response in a mouse model of acute *Clostridium difficile* infection. Immunology 2012. Boston, MA. May 2012.
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