

Saar Anis

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EDUCATION

Sep 2024 – Present

Case Western Reserve University

Clinical Research Scholars Program (CRSP) 431 Statistical Methods Course, Fall Semester

June 2014

Tel Aviv University, Faculty of Medical & Health Sciences

Doctor of Medicine, cum laude

2014 - 2015

Bar Ilan University, Faculty of Life Sciences

Genomics and Biomedical Computing for MDs

PROFFESIONAL EXPERIENCE

July 2024 – Present

Clinical Fellow for Movement Disorders

Center For Neurological Restoration, Cleveland Clinic Foundation, Cleveland, Ohio, United States

July 2023 – July 2024

Research Fellow for Movement Disorders

Center For Neurological Restoration, Cleveland Clinic Foundation, Cleveland, Ohio, United States

Jan 2021- June 2023

Staff Neurologist and Movement Disorders Specialist

Movement Disorders Institute, Sheba Medical Center, Israel

June 2020 – December 2021

Staff Neurologist and Movement Disorders Specialist

Movement Disorder Unit, Department of Neurology, Tel Aviv Sourasky Medical Center, Israel

June 2019 – May 2020

Clinical Fellowship for Movement Disorders

Movement Disorder Unit, Department of Neurology, Tel Aviv Sourasky Medical Center, Israel

June 2014 – May 2019

Residency in Neurology

Department of Neurology, Tel Aviv Sourasky Medical Center, Israel

PROFFESIONAL SOCIETIES AND STUDY GROUPS

2024 – Present

Member of Movement Disorders Society (MDS) Study Groups:

1. Non-Motor Study Group
2. Tourette Syndrome Study Group

2019 - Present

International Parkinson and Movement Disorder Society (MDS)

2013 – 2023
Israeli Medical Association

2020 – 2023
Israeli Movement Disorders Society

STUDENTS GUIDED UNDER MY MENTORSHIP

2023 – Present
Maxime Munyeshyaka, 1st-Year Medical Student, School of Medicine - Case Western Reserve University
Project: Efficacy of VIM DBS for head tremor in Essential Tremor patients
Center for Neurological Restoration, Cleveland Clinic Foundation, Cleveland, Ohio, United States

2022 - Present
Erez Magiel, PGY-2, Neurology Resident
Project: The usefulness of antinuclear antibodies (ANA) in the investigation of rheumatic disorders in patients presenting with neurological symptoms
Sheba Medical Center, Israel

2022 - Present
Simon Lassman, Medical Intern
Project: characterizing neuropsychological patterns of Tourette's syndrome using Delphi brain health evaluations
Arrow Project for Medical Research, Sheba Medical Center, and Faculty of Medicine

2022- Present
Tomer Goldberg, PGY-1, Neurology Resident
Project: Long-Term Safety of Medical Cannabis in Parkinson's Disease: A Retrospective Case-Control Study
Sheba Medical Center, Israel

2022-2023
Naama Lavi, 3rd-Year Medical Student
Project: The genetic landscape of Parkinson's disease in Israel, as obtained from the Rostock International Parkinson's Disease Study (ROPAD)
Faculty of Medical & Health Sciences, Tel Aviv University, Tel Aviv, Israel

2021-2023
Yuval Kozlov, Hadassah University, 6th-Year Medical Student
Project: Analysis of genetic influence on surgical interventions for Movement Disorders
Arrow Project for Medical Research, Sheba Medical Center, and Faculty of Medicine

2021-2022
Naama Barkai, Medical School at Ben-Gurion University of the Negev, 3rd-Year Medical Student
Project: Building a clinical-genetic data base for patients with Parkinson's disease
Sheba Medical Center, Israel

2020-2022
Lauren Parienti, 3rd-Year Biology-Psychology Program
Project: Medical Cannabis for adults with resistant Tourette Syndrome – an online survey
Sagol School of Neuroscience, Tel Aviv University

SCIENTIFIC MEETINGS PRESENTATIONS

09/2024

International Congress of Parkinson's Disease and Movement Disorders (MDS), Philadelphia, USA

Poster presentation #1: Effectiveness of VIM DBS for Head Tremor in Essential Tremor Patients: A Single-center Experience.

Poster presentation #2: Spatial Memory and Processing Speed as Cornerstones in Predicting Falls in Parkinson's Disease

05/2024

World congress on Parkinson's disease and related disorders, Lisbon, Portugal

Oral presentation #1: "Are LRRK2 p.G2019S or GBA1 variants associated with long-term outcomes of deep brain stimulation for Parkinson's disease?"

Oral presentation #2: "Cognitive Impairment in the Underrepresented Latinx Parkinson Disease Population – Insights From the LARGE-PD and PPMI Cohorts"

05/2024

Neurological Institute Forum for Trainees Research Day, Cleveland Clinic, Cleveland, USA

Oral presentation: "Cognitive Measures Are As Good As Motor Outcomes in Predicting Falls in Parkinson's Disease"

11/2023

Parkinson Study Group, Junior Investigator Workshop, Austin Texas, United States

Poster presentation: Does LRRK2 p.G2019S and GBA1 variant status associate with the long-term outcome of deep brain stimulation for Parkinson's disease?

12/2022

Israeli Neurological Association Annual Meeting

Speaker (X 4 Oral presentations) + Poster presentation (X 2)

09/2022

Movement Disorders Society (MDS) Annual Conference, Madrid, Spain

Poster presentation: Long-Term safety of medical cannabis in Parkinson's disease: a retrospective case-control study

12/2021

Israeli Neurological Association Annual Meeting

Invited speaker + Poster presentation (X 2)

09/2021

Virtual Movement Disorders Society (MDS) Annual Conference

Poster presentation (X 3): (1) A real-life study of Medical Cannabis effect on adults with dystonia; (2) Positive effect of Medical Cannabis in adults with Tourette syndrome; (3) Idiopathic rhombencephalitis involving the substantia nigra followed by rapidly progressive parkinsonian syndrome in a young patient.

09/2020

Israel Movement Disorders Society Annual Meeting

Invited speaker

03/2020

14th World Congress on Controversies in Neurology (CONy), United Kingdom

Poster presentation

12/2019

Israeli Neurological Association Annual Meeting

Invited speaker + Poster presentation

07/2019

Movement Disorders Society (MDS) Annual Conference, Nice, France

Poster presentation: Relationship between non-motor symptoms, medications and sleep interruptions in patients with Parkinson's disease.

04/2019

13th World Congress on Controversies in Neurology (CONy), Spain

Poster presentation

11/2018

Israeli Pain Society Annual Meeting

Invited speaker

12/2016

Israeli Neurological Association Annual Meeting

Poster presentation

11/2014

Israeli Neurological Association Annual Meeting

Poster presentation

03/2013

American Academy of Neurology (AAN) Annual Meeting

Poster presentation (X 2)

2010

European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) , Sweden

Poster presentation

GRANTS

2024 – 2025

Saar Anis (PI). Title: Longitudinal Evolution of Prodromal Non-Motor Symptoms in Different Biological Parkinson's Disease Stages. This work has been selected as a recipient of 2024 Write Now Initiative, receiving a **\$7,000** award.

2024 – 2025

Saar Anis (PI). Title: Investigating the Effects of Varied Stimulation Parameters on Neural Recordings and Sleep Quality in Subthalamic Nucleus Deep Brain Stimulation for Parkinson's Disease.

American Parkinson Disease Association, Value: **\$75,000**

2024 – 2026

Saar Anis (PI). Title: Novel Care Model for Treatment of Functional Movement Disorders: A Mixed-Model Study Investigating the Role of Virtual Shared Medical Appointments

Health care Delivery & Implementation Science Center (HDISC), Cleveland Clinic Foundation. **Value: \$100,000**

2023-2025

Uri Asheri (PI), Saar Anis (SI). Title: Developing a novel platform for patient selection and disease tracking using super-resolution microscopy and AI.

The Michael J Fox Foundation. **Allocated to Saar Anis's Institution: \$25,000**

2022-2023

Saar Anis (PI), Lior Greenbaum (SI), Prof. Sharon Hassin (SI). Title: Identification of clinical phenotype modifying variants among GBA- and LRRK2- associated Parkinson's disease.
"Elrov" Foundation, Sheba Medical Center. **Value: 70,000 NIS**

2010-2011

Saar Anis (PI), Prof. Anat Achiron (SI)

Title: Gene expression microarray biomarkers predict therapeutic responses to glatiramer acetate in relapsing remitting multiple sclerosis.

'Asi Schneiderman' Research Scholarship - awarded for excellence research. **Value: 8,000 NIS**

INNOVATIONS

Cleveland Clinic, Innovations

AI Model Development for Clinical Studies Recruitment

January 2025 – December 2025 (**Saar Anis - 50% effort**)

In this project, I will lead a collaborate on the development of an AI model designed to identify patients suitable for clinical studies, enhancing recruitment efficiency and study participation rates. Analyze patient data to refine model accuracy and ensure compliance with ethical standards. Work cross-functionally with clinical teams to integrate AI insights into clinical practice, improving patient outcomes and research efficacy.

HONORS

October 2018

Honored for Excellence in the Israel Neurology Residency Board Exams

Israel Medical Association Scientific Council

September 2014

Scholarship for Outstanding Dissertation and Thesis Defense

Sackler School of Medicine, Tel Aviv University, Israel

May 2014

Medical Intern Award of Excellence (chosen among all interns during the calendar year)

Sheba Medical Center, Israel

PEER REVIEWER

I have served as a peer reviewer for esteemed journals, including:

- Movement Disorders Clinical Practice
- Parkinsonism and Related Disorders
- CNS Drugs

PUBLICATIONS IN PEER REVIEW JOURNALS

1. Thaler A, **Anis S**, Ponger P, Fay-Karmon T, Livneh V, Faust-Socher A, Greenbaum L, Reiner J, Hilel A, Shabtai H, Alcalay RN, Djaldetti R, Hassin-Baer S, Ezra A, Mirelman A, Giladi N, Gurevich T. Levodopa-carbidopa intestinal gel for advanced Parkinson's disease: Impact of LRRK2 and GBA1 mutations. Parkinsonism Relat Disord 2024 Oct;127:107115. PMID: 39208588.

2. Sade O, Fischel D, Barak-Broner N, Halevi S, Gottfried I, Bar-On D, Sachs S, Mirelman A, Thaler A, Gour A, Kestenbaum M, Gana Weisz M, **Anis S**, Soto C, Roitman MS, Shahar S, Doppler K, Sauer M, Giladi N, Lev N, Alcalay RN, Hassin-Baer S, Ashery U. A novel super-resolution microscopy platform for cutaneous alpha-synuclein detection in Parkinson's disease. *Front Mol Neurosci*. 2024 Sep 4;17:1431549. doi: 10.3389/fnmol.2024.1431549. eCollection 2024. PMID: 39296283
3. **Anis S**, Zelinsky M, Shuaib U, Hartwig E, Simpson M, Fernandez HH, Rush T, Yu XX. Introducing Virtual Shared Medical Appointments as a Novel Treatment Platform for Functional Movement Disorders. Tremor and Other Hyperkinetic Movements. 2024; 14(1): 36, pp. 1–5. DOI: <https://doi.org/10.5334/tohm.921>
4. Lempel N, Shelly S, Chorin O, Rock R, Eliyahu A, Finezilber Y, Poran H, Feinshtein-Goren N, Segev M, Reznik-Wolf H, Barel O, Orion D, **Anis S**, Regev M, Yonath H, Dominissini D, Blatt I, Hassin-Baer S, Dori A, Pras E, Greenbaum L.
The yield of genetic workup for middle-aged and elderly patients with neurological disorders in a real-world setting. 2024 May; *Journal of Neurological Sciences*; doi: <https://doi.org/10.1016/j.jns.2024.123074>.
5. **Anis S**, Goldberg T, Shvueli E, Kozlov U, Redlich Y, Lavi N, Lavie I, Ludwig Sosero Y, Gan-or Z, Ungar L, Zibly Z, Greenbaum L, Fay-Karmon Z, Hassin-Baer Sharon. Are LRRK2 p.G2019S or GBA1 variants associated with long-term outcomes of deep brain stimulation for Parkinson's disease? *Parkinsonism and Related Disorders*. 2024 Jan 12:106008. doi: 10.1016/j.parkreldis.2024.106008.
6. **Anis S**, Fay-Karmon Z, Lassman S, Shbat F, Lesman-Segev O, Mor N, Barel O, Dominissini D, Chorin O, Pras E, Greenbaum L, Hassin-Baer S. Adult-Onset Alexander Disease among patients of Syrian Jewish descent. *Neurogenetics*. 2023 Oct;24(4):303-310. doi: 10.1007/s10048-023-00732-w. Epub 2023 Sep 2.
7. Goldberg T, Redlich Y, Fay-Karmon T, Hassin-Baer S, **Anis S**.
Long-term safety of medical cannabis in Parkinson's disease: a retrospective case-control study. *Parkinsonism Relat Disord*. 2023 Jul;112:105406. doi: 10.1016/j.parkreldis.2023.105406. Epub 2023 May 5.
8. **Anis S**, Faust-Socher A, Sverdlov D, Lassman S, Hezi N, Anis O, Leor G, Korczyn AD, Giladi N, Gurevich T. A single-center real-life study on the use of medical cannabis in patients with dystonia. *Front Neurol*. 2023 Jun 29;14:1218300.
9. **Anis S**, Zalomek C, Korczyn AD, Lassman S, Rosenberg A, Gurevich T. Licensed medical cannabis use in Gilles de la Tourette syndrome: a retrospective long-term follow-up. *Cannabis Cannabinoid Res*. 2023 May 12. doi: 10.1089/can.2022.0281
10. Kiderman D, Ben-Shabat N, Tsur AM, **Anis S**, Watad A, Cohen AD, Paz Z, Amital H. Vitamin D Insufficiency is Associated with Higher Incidence of Dementia, a Large Community-Based Retrospective Cohort Study. *J Geriatr Psychiatry Neurol*. 2023 Mar 8:8919887231163292. doi: 10.1177/08919887231163292. PMID: 36888907.
11. Watad A, McGonagle D, **Anis S**, Carmeli R, Cohen AD, Tsur AM, Ben-Shabat N, Luigi Bragazzi N, Lidar M, Amital H. TNF inhibitors have a protective role in the risk of dementia in patients with ankylosing spondylitis: Results from a nationwide study. *Pharmacol Res*. 2022 Aug;182:106325. doi: 10.1016/j.phrs.2022.106325. PMID: 35752359.
12. **Anis S**, Zalomek C, Korczyn AD, Rosenberg A, Giladi N, Gurevich T.
Medical Cannabis for Gilles de la Tourette Syndrome: An Open-Label Prospective Study. *Behav Neurol*. 2022 Mar 9;2022:5141773. doi: 10.1155/2022/5141773. PMID: 35310886; PMCID: PMC8926524.
13. **Anis S**, Fahoum F, Korczyn AD, Sverdlov D, Abramovici S, Mina Y, Neufeld MY, Kipervasser S. Atypical duration of epileptic and psychogenic nonepileptic events. *Epilepsy Behav*. 2020 Oct;111:107145. doi: 10.1016/j.yebeh.2020.107145. Epub 2020 Jul 18. PMID: 32693371.

14. Faust-Socher A, **Anis S**, Kestenbaum M, Shabtai H, Taichman T, Bar David A, Ezra A, Peretz C, Rosenberg A, Brozgol M, Herman T, Stebbins GT, Goetz CG, Martínez-Martín P, Luo ST, Ren X, Giladi N, Gurevich T. Validation of the Hebrew Version of the Unified Dyskinesia Rating Scale. *Neuroepidemiology*. 2020;54(4):356-362. doi: 10.1159/000507827. Epub 2020 Jun 15. PMID: 32541146.
15. Mina Y, Fahoum F, Abramovici S, **Anis S**, Kipervasser S.
Clinical correlates and electroencephalographic features of FIRDA in a tertiary center.
Acta Neurol Scand. 2019 Dec;140(6):405-413.
doi: 10.1111/ane.13157. Epub 2019 Sep 10. PMID: 31420976.
16. **Anis S**, Regev K, Pittock S J, Flanagan E P, Alcalay Y, Gadoth A
Isolated recurrent myelitis in a persistent MOG positive patient. *Mult Scler Relat Disord*. 2019 May;30:163-164. doi: 10.1016/j.msard.2019.02.016. Epub 2019 Feb 13. PMID: 30780123
17. **Anis S**, Mosek A.
[Epigenetic mechanisms in models of chronic pain – a target for novel therapy?].
HAREFUA. 2018 Jun;157(6):370-373. PMID: 29964377.
18. **Anis S**, Sharabi A, Mina Y, Klein A, Cagnano E, Elkayam O, Gurevich T.
Rituximab as a Second-Line Treatment for Lymphocytic Vasculitis of the Central Nervous System.
2016 Oct;18(10):630-632. PMID: 28471627.
19. **Anis S**, Achiron A.
[Emerging new therapies for relapsing remitting multiple sclerosis].
HAREFUA. 2014 Nov;153(11):658-62, 687, 686. PMID: 25563027.