

# ACHILLEFS NTRANOS, MD

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I am a board-certified neurologist specializing in neuroimmunology and multiple sclerosis (MS). My goal as a clinician is to combine concepts of personalized medical management with evidence-based clinical decision making to maximize the treatment benefit for each patient.

## EXPERIENCE

2022-PRESENT

**Chief Neurologist at Treat MS**

NEUROLOGIC CARE P.C., NEW YORK

2019 – 2021

**Assistant Professor, Multiple Sclerosis and Demyelinating Diseases**

ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI, NEW YORK

2017-2019

**Research Fellow, Multiple Sclerosis and Demyelinating Diseases**

ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI, NEW YORK

2016-2017

**Chief Resident, Neurology**

ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI, NEW YORK

2014-2016

**Resident, Neurology**

ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI, NEW YORK

2013-2014

**Intern, Internal Medicine**

ALBERT EINSTEIN SCHOOL OF MEDICINE, BRONX

2011-2013

**Postdoctoral Fellow, Neuroimmunology**

JOHNS HOPKINS SCHOOL OF MEDICINE, BALTIMORE

## EDUCATION

2005-2011

**M.D.**

NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS SCHOOL OF MEDICINE, ATHENS, GREECE

## HONORS AND AWARDS

2017-2019

**NINDS R25 Research Education Grant Recipient**

2019

**Invited Faculty**

ECTRIMS Annual Meeting, Stockholm, Sweden, Sep 11-13, 2019

2017-2019

**Leon Levy Fellowship in Neuroscience**

2017

**American Neurological Association Translational & Clinical Research Travel Award**

2015

**CMSC Neurology Resident Annual Meeting Scholarship**

2015

**Master MS Fellowship**

2013

**Whitaker Scholar & Prize for Best Platform Presentation,**

ACTRIMS-CMSC 18th Annual Meeting, Orlando, Florida, May 31-June 1, 2013

2011

**Lambrakis Award in Pharmacology Research,**

Biomedical Research Foundation of Academy of Athens, Greece

2010

**Scholarship For Medical Education,**

Vardinogiannis Foundation

2008

**Scholarship For Clinical Medical Education,**

National and Kapodistrian University of Athens

## CERTIFICATIONS AND LICENSURE

2017

## American Board of Psychiatry and Neurology Certification

2017

Neurostatus EDSS Certification

2017

Medical Licensure, New York

## OTHER PROFESSIONAL ROLES

2020

American Neurological Association, Member

2015

American Academy of Neurology, Member

2013

American Physician Scientist Association, Member

2013

American Association of Immunologists, Member

## TEACHING AND MENTORING

Teaching Activity	Level	Role	Indicate Level and Number of Learners	Number of hours	Years Taught
Adult Neurology Resident Clinic & MS clinic	Post-graduate medical education	Teaching/Attending	Neurology Residents (30)	208 hours per year	2019-2021
Brain and behavior: small group sessions	Medical school course	Small group lecturer	Medical Students (~15)	15 hours per year	2020-2021
Inpatient neurology consult service	Post-graduate medical education	Teaching/Attending	Residents and Medical Students (~6-8)	80 hours per year	2020-2021

## PUBLICATIONS

### PEER REVIEWED ORIGINAL CONTRIBUTIONS:

**Bacterial neurotoxic metabolites in multiple sclerosis cerebrospinal fluid and plasma.**

*Ntranos A\*+, Park HJ+, Wentling M, Tolstikov V, Amatruda M, Inbar B, Kim-Schulze S, Frazier C, Button J, Kiebish MA, Lublin F, Edwards K, Casaccia P\**

*Brain* 2021 Dec 11:awab320. doi: 10.1093/brain/awab320. Online ahead of print.

PMID: 34894211

\* co-corresponding authors

+ equal contribution

**Immunosurveillance of CCR6+ T cells predicts treatment response to dimethyl-fumarate: implications for personalized treatment strategies in multiple sclerosis.**

*Alifieris C, Kim-Schulze, S, Katz Sand I, Casaccia P, Ntranos A\**

medRxiv 2020 May, preprint, doi:<https://doi.org/10.1101/2020.05.15.20102137>

\*Corresponding author

**Fumarates target the metabolic-epigenetic interplay of brain-homing T cells in multiple sclerosis.**

*Ntranos A\*, Ntranos V, Bonnefil V, Liu J, Kim-Schulze, S, He Y, Zhu Y, Brandstadter R, Watson CT, Sharp AJ, Katz Sand I, Casaccia P\**

**Brain** (Editor's Choice section, Cover feature) 2019 Mar 1;142(3):647-661. doi:

10.1093/brain/awy344. PubMed PMID: 30698680; PubMed Central PMCID: PMC6821213

\*co-corresponding authors

**A metabolic perspective on CSF-mediated neurodegeneration in multiple sclerosis.**

*Wentling M, Lopez-Gomez C, Amatruda M, Ntranos A, Rusielewicz T, Aramini J, Petracca M, Chen E, Tolstikov V, Kiebish M, Fossati V, Inglese M, Quinzii C, Katz Sand I and Casaccia P*

**Brain** 2019 Sep 1;142(9):2756-2774. doi: 10.1093/brain/awz201. PubMed PMID: 31305892.

Contribution: data analysis and interpretation, revised manuscript

**BMI-dependent lipid dysregulation in multiple sclerosis patients induces epigenetic changes in monocytes and results in brain volume reduction.**

*Castro K, Ntranos A, Amatruda M, Petracca M, Kosa P, Chen E, Morstein J, Trauner D, Kiebish M, Bielekova B, Inglese M, Katz Sand I, Casaccia P*

**eBiomedicine** 2019 May;43:392-410. doi: 10.1016/j.ebiom.2019.03.087. Epub 2019 Apr 10.

PubMed PMID: 30981648; PubMed Central PMCID: PMC6557766.

Contribution: data analysis and interpretation, revised manuscript

**Disease-modifying therapies alter gut microbial composition in multiple sclerosis.**

*Katz Sand IB, Zhu Y, Ntranos A, Clemente J, Cekanaviciute E, Brandstadter R, Crabtree-Hartman E, Singh S, Bencosme Y, Debelius J, Knight R, Cree B, Baranzini S, Casaccia P*

**Neurol Neuroimmunol Neuroinflamm** 2019 Jan;6(1):e517. doi: 10.1212/NXI.0000000000000517.

eCollection 2019 Jan. PubMed PMID: 30568995; PubMed Central PMCID: PMC6278850.

Contribution: data analysis and interpretation, drafted and revised manuscript

**Brain microstructural injury occurs in patients with RRMS despite 'no evidence of disease activity'.**

*Harel A, Sperling D, Petracca M, Ntranos A, Katz-Sand I, Krieger S, Lublin F, Wang Z, Liu Y, Inglese M*

**Journal of neurology, neurosurgery, and psychiatry.** 2018 Sep;89(9):977-982. doi: 10.1136/jnnp-2017-317606. Epub 2018 Mar 16. PubMed PMID: 29549189.

Contribution: data acquisition

**Safety and immunologic effects of high- vs low-dose cholecalciferol in multiple sclerosis.**

*Sotirchos ES, Bhargava P, Eckstein C, Van Haren K, Baynes M, Ntranos A, Gocke A, Steinman L, Mowry EM, Calabresi PA*

**Neurology.** 2016 Jan 26;86(4):382-90. doi: 10.1212/WNL.0000000000002316. Epub 2015 Dec 30.

PubMed PMID: 26718578; PubMed Central PMCID: PMC4776090.

Contribution: data acquisition and analysis

**Education Research: Resident education through adult learning in neurology: Implementation and impact.**

*Shoirah H\**, *Ntranos A\**, *Brandstadter R*, *Liu Y*, *Medina E*, *Kwan J*, *Krieger S*

**Neurology**. 2018 Jul 31;91(5):234-238. doi: 10.1212/WNL.0000000000005914.

PubMed PMID: 30061341

Contribution: data acquisition, analysis and interpretation, drafted and revised manuscript

\*co-first authors

**Fingolimod (FTY720) impairs CD8 T-cell function independently of the sphingosine-1-phosphate pathway.**

*Ntranos A*, *Hall O*, *Robinson DP*, *Grishkan IV*, *Schott JT*, *Tosi DM*, *Klein SL*, *Calabresi PA*, *Gocke AR*

**Journal of neuroimmunology**. 2014 May 15;270(1-2):13-21. doi:

10.1016/j.jneuroim.2014.03.007. Epub 2014 Mar 11. PubMed PMID: 24680062.

**Helper T cells down-regulate CD4 expression upon chronic stimulation giving rise to double-negative T cells.**

*Grishkan IV*, *Ntranos A*, *Calabresi PA*, *Gocke AR*

**Cellular immunology**. 2013 Jul-Aug;284(1-2):68-74. doi: 10.1016/j.cellimm.2013.06.011. Epub

2013 Jul 2. PubMed PMID: 23933188; PubMed Central PMCID: PMC3788052.

Contribution: data acquisition and analysis

**Expression of CCR7 and CD45RA in CD4+ and CD8+ subsets in cerebrospinal fluid of 134 patients with inflammatory and non-inflammatory neurological diseases.**

*Mullen KM*, *Gocke AR*, *Allie R*, *Ntranos A*, *Grishkan IV*, *Pardo C*, *Calabresi PA*

**Journal of neuroimmunology**. 2012 Aug 15;249(1-2):86-92. doi: 10.1016/j.jneuroim.2012.04.017.

Epub 2012 May 24. PubMed PMID: 22633193; PubMed Central PMCID: PMC3391349.

Contribution: data analysis

**OTHER PEER REVIEWED PUBLICATIONS:**

**The Microbiome-Gut-Behavior Axis: Crosstalk Between the Gut Microbiome and Oligodendrocytes Modulates Behavioral Responses.**

*Ntranos A*, *Casaccia P*

**Neurotherapeutics** 2018 Jan;15(1):31-35. doi: 10.1007/s13311-017-0597-9. Review. PubMed

PMID: 29282673; PubMed Central PMCID: PMC5794707.

**Clinical Reasoning: A young woman with respiratory failure, hearing loss, and paraplegia.**

*Ntranos A*, *Shoirah H*, *Dhamoon MS*, *Hahn D*, *Naidich TP*, *Shin S*

**Neurology**. 2017 Mar 7;88(10):e78-e84. doi: 10.1212/WNL.0000000000003684. PubMed PMID: 28265044.

**Diagnostic Criteria, Classification and Treatment Goals in Multiple Sclerosis: The Chronicles of Time&Space**

*Ntranos A*, *Lublin F*

**Current neurology and neuroscience reports**. 2016 Oct;16(10):90. doi: 10.1007/s11910-016-0688-8. Review. PubMed PMID: 27549391.

**Bromodomains: Translating the words of lysine acetylation into myelin injury and repair.**

*Ntranos A*, *Casaccia P*

**Neuroscience letters**. 2016 Jun 20;625:4-10. doi: 10.1016/j.neulet.2015.10.015. Epub 2015 Oct 22. Review. PubMed PMID: 26472704; PubMed Central PMCID: PMC4841751.

## PRESENTATIONS

### EUROPEAN COMMITTEE FOR TREATMENT AND RESEARCH IN MULTIPLE SCLEROSIS (ECTRIMS):

- Poster*      **2020: "High-dimensional immune profiling of dimethyl fumarate and ocrelizumab in multiple sclerosis"**  
*Zhang Y, Lee B, Xie H, Rockoff J, Brandstadter R, Kim-Schulze S, Lublin F, Ntranos A*
- Poster*      **2017: "Dimethyl-fumarate as an epigenetic immunomodulator: implications for T cell survival and function"** *Ntranos A, Ntranos V, Zhu Y, Watson C, Katz Sand I, Casaccia P*
- Poster*      **2017: "Myelin deterioration occurs in relapsing remitting multiple sclerosis patients meeting criteria for" no evidence of disease activity"**  
*Harel A, Sperling D, Petracca M, Ntranos A, Brandstadter R, Inglese M*

### AMERICAN COMMITTEE FOR TREATMENT AND RESEARCH IN MULTIPLE SCLEROSIS (ACTRIMS):

- Poster*      **2019: "Leveraging Immunomodulatory Mechanisms to Develop Strategies for Personalized Medicine in Multiple Sclerosis"** *Ntranos A, Katz Sand I, Casaccia P*
- Platform\**      **2013: "Fingolimod inhibits cytotoxic T cells: a novel immunomodulatory effect of the unphosphorylated compound"** *Ntranos A, Grishkan IV, Robinson DP, Hall OJ, Klein SL, Calabresi PA, Gocke AR*  
*\*Whitaker prize for best platform presentation*

### AMERICAN ACADEMY OF IMMUNOLOGY (AAI):

- Platform*      **2018: "Fumaric acid esters hypermethylate the miR21 locus and prevent the formation of CCR6+ CD4 T cells in multiple sclerosis"** *Ntranos A, Ntranos V, Bonnefil V, Liu J, Zhu Y, Watson C, Katz-Sand I, Casaccia P*
- Poster*      **2013: "Dissecting fingolimod's action: a novel immunomodulatory effect of the unphosphorylated compound on cytotoxic T cell function"** *Ntranos A, Grishkan IV, Robinson DP, Hall OJ, Klein SL, Calabresi PA, Gocke AR*

### AMERICAN ACADEMY OF NEUROLOGY (AAN):

- Poster*      **2018: "Fatigue in early multiple sclerosis and the role of the caudate nucleus"** *Ntranos A, Krieger S, Fabian M, Leavitt V, Lewis C, Pelle G, Mendili ME, Droby A, Inglese M, Sumowski J*
- Poster*      **2015: "High-dose vitamin D supplementation reduces IL-17-producing CD4+ T-cells and effector-memory CD4+ T-cells in multiple sclerosis patients"** *Bhargava P, Sotirchos E, Eckstein C, Ntranos A, Gocke A, Mowry E, Calabresi PA*

### AMERICAN NEUROLOGICAL ASSOCIATION (ANA):

- Poster*      **2017: "Adult-Learning Theory in Neurology Residency: Preliminary Evidence of Efficacy and Feasibility"** *Shoimah H, Ntranos A, Brandstadter R, Liu Y, Medina E, Kwan J, Krieger S*

Complete List of Published Work in MyBibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/1rCpgPA93OMks/bibliography/public/>