

CURRICULUM VITAE / BIBLIOGRAPHY

Orhun Halit Kantarci, M.D.

last update: 8-2-2017

1. PERSONAL INFORMATION:

Date of birth: November 26, 1969
Place of birth: Istanbul, TURKEY
Citizenship: Dual (Republic of Turkey, Unites States of America)
US residence status: Permanent resident since 2001. Citizen since 2007.

2. PRESENT ACADEMIC RANK AND POSITION:

Consultant of Neurology and Medical & Laboratory Genetics; Associate Professor of Neurology

3. EDUCATION/POSITIONS:

YEAR(s)	INSTITUTION AND LOCATION	DEGREE	FIELD
1980 - 1987	<i>High school /College education *:</i> American Robert College of Istanbul		
1987 - 1993	<i>Medical school and Internship #1:</i> Istanbul University, Cerrahpasa School of Medicine	M.D.	
1993 - 1998	<i>Residency #1:</i> Istanbul University, Cerrahpasa School of Medicine	Neurologist (in Turkey)	Neurology
1998 - 2001	<i>Research Fellowship:</i> Mayo Clinic College of Medicine, Rochester, MN (Funding through, NATO Science Fellowship Award, NIH and National Multiple Sclerosis Society Advanced Fellowship Award)		Multiple Sclerosis
2001 - 2002	<i>Internship #2:</i> Mayo Clinic College of Medicine, Rochester, MN		Medicine
2002 - 2005	<i>Residency #2:</i> Mayo Clinic College of Medicine, Rochester, MN		Neurology
2005 - 2006	<i>Clinical Fellowship:</i> Mayo Clinic College of Medicine, Rochester, MN		Multiple Sclerosis
2006- 2009	<i>Senior Associate Consultant:</i> Mayo Clinic College of Medicine, Rochester, MN		Neurology
2009-active	<i>Consultant:</i> Mayo Clinic College of Medicine, Rochester, MN		Neurology

* There is no official designation corresponding to college education in Turkey. The curriculum in the high school I have attended has college level education incorporated within the high school program.

4. BOARD CERTIFICATION(S) COMPLETED AS OF LAST UPDATE

Neurology Board Certification in Turkey:

Mar 1998 Passed

United States Medical Licensing Examination (USMLE):

Sep 1993 (Step-1) Passed

Mar 1994 (Step-2) Passed
Aug 2000 (Step-3) Passed
Mar 2000 (TOEFL) Passed

ECFMG certification (# 0-509-653-2):

Oct 1996 Permanent

American Board of Psychiatry and Neurology (ABPN)

Part-1: Passed
Part-2: Passed
2006 Certified

5. MEDICAL LICENSURE:

License to practice medicine in Turkey
License to practice neurology in Turkey
Minnesota Medical License (# 45754)

6. HONORS/AWARDS:

1987 - 1991 Hisar Educational Foundation (Turkey) scholarship award to support medical school education

Aug 1991 Medical Students International Commission (MSIC) award to support an elective clerkship in internal medicine as an exchange student in Erasmus University, Dijkzigt Hospital Rotterdam, The Netherlands

Jun 1997 Best oral presentation award for the study entitled "Neuro-Behçet Syndrome (NBS): Clinical and Imaging Correlates" by Siva A, Saip S, Kantarci O, et al. presented at the 7th Meeting of the European Neurological Society, Rhodes, Greece, June 14-18, 1997. J Neurology 224 (suppl3): S 45.

Nov 1997 Best oral presentation award for the study entitled "Natural History and Prognosis in Turkish MS patients" by The Turkish Multiple Sclerosis Study Group (TUMSSG); Kantarci O, Siva A, Saip S, Karaali F., Karantay F., Eraksoy M., Akman-Demir G., Karabudak R., Gürsoy Y, Tanik O., Agaoglu J., Akyatan N., Togrul E., Kirbas D, Sütlas N., Turan F., Özmenoglu M. The 13th congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) Istanbul, Turkey

Apr 1998 - Jun 1998 NATO Science Fellowship award to support a research trainee position in Mayo Clinic Rochester, MN for the period of three months from April 1998 to June 1998

Jul 1999 - Jul 2001 National Multiple Sclerosis Society Advanced Fellowship award to support a research fellowship position in Mayo Clinic Rochester, MN for a period of two years starting from July 1st, 1999

Sep 2001	<u>First Prize, Fellow Award in the category of Epidemiology / Outcomes Research / Population Research</u> for the study entitled “Polymorphisms of CTLA-4 gene are associated with susceptibility to multiple sclerosis” by <u>Kantarci OH</u> , Atkinson EJ, Hebrink DD, deAndrade M , McMurray CT, Weinshenker BG. Mayo Research Forum, September 21-22, 2001, Rochester, MN
May 2002	<u>The Department of Neurology Research Award</u> for superior performance in clinical neurology as a fellow of the Mayo Graduate School of Medicine, Mayo Clinic and Foundation.
Jan 2005	<u>The Founders Award by the American Academy of Neurology</u> for the study entitled “Men with MS transmit the disease more often to their children than women: The Carter effect”
July 2008	<u>CR20 award</u> to support the study entitled “Gender dependent epigenetic regulation of <i>IFNG</i> in multiple sclerosis”, Orhun H. Kantarci, M.D. as PI

7. MILITARY SERVICE :

Completed compulsory service in Turkey
 No service in United States

8. PREVIOUS PROFESSIONAL POSITIONS AND MAJOR APPOINTMENTS:

Nov 1993 - Mar 1998	Residency, Department of Neurology, Istanbul University, Cerrahpasa School of Medicine
Apr 1998 - Jan 1999	Research trainee, Mayo Clinic, Rochester, MN
Jan 1999 - Jul 2001	Research fellowship, Mayo Clinic, Rochester, MN
Jul 2001 - Jul 2005	Residency, Department of Neurology, Mayo Clinic, Rochester, MN
July 2005 - July 2006	Clinical fellowship, Department of Neurology, Mayo Clinic, Rochester, MN
July 2006- July 2009	Senior associate consultant, Department of Neurology, Mayo Clinic, Rochester, MN
Jul 2009- active	Consultant, Department of Neurology, Mayo Clinic, Rochester, MN
Sep 2009- active	Secondary appointment, Department of Medical and Laboratory Genetics, Mayo Clinic, Rochester, MN
Jul 2006-active	Mayo Clinic Neurology, outreach consulting services, Owatonna Clinic, Mayo Health System, MN
Jan 2011-active	Contractor, Mayo Clinic Neurology, outreach consulting services, Federal Medical Center. Rochester, MN

9. PROFESSIONAL MEMBERSHIPS AND SOCIETIES (Extramural only)

Minnesota Medical Association
 American Medical Association
 American Academy of Neurology
 Turkish Neurological Society
 AAAS

10. EDUCATIONAL ACTIVITIES

a. Teaching Activities (intramural)

Neurology Grand Rounds, Mayo Clinic Rochester, MN. (Nov 2000)

“Behcet’s Disease & Neuro-Behcet syndrome. A diagnosis woven in silk”

Discussion of our experience with epidemiological, clinical, radiological, prognostic and treatment aspects of 169 cases of Behcet’s Disease with neurological involvement that I have studied as part of my thesis in neurology during my initial residency training in Turkey.

Neurology Grand Rounds, Mayo Clinic Rochester, MN. (Mar 2001)

“A tale of two genes” (with Brian Weinshenker M.D.).

Our findings on two positive candidate gene (interferon gamma and apolipoprotein E) association studies in multiple sclerosis were discussed in relation to approaches in discovering genetic contributions to complex disorders such as multiple sclerosis.

Wednesday morning neurology conference, Mayo Clinic Rochester (Sep 2004).

“A case of giant cell arteritis with recurrent vertebrobasilar ischemic attacks” (with Drs. George Petty and Vivian Lee).

A patient with recurrent vertebrobasilar ischemic attacks in the presence of giant cell arteritis requiring multiple serial temporal artery biopsies to document was presented. Pathophysiology of giant cell arteritis was reviewed.

Wednesday morning neurology conference, Mayo Clinic Rochester (Nov 2004).

“Red queen of Alice in Wonderland” (with Dr. Suresh Kotagal)

A pediatric patient with familial hemiplegic migraine presenting with recurrent episodes of coma was presented. Genetics and clinical spectrum of familial hemiplegic migraine was reviewed.

Wednesday morning neurology conference, Mayo Clinic Rochester (Jan 2005).

“Dew drops on rose petals” (with Dr Shelly Cross)

A patient with VZV myelitis was presented. Possibility of asymptomatic cases and prognosis of this “not so benign” disorder was discussed.

Wednesday morning neurology conference, Mayo Clinic Rochester (Feb 2005).

“Those white cells” (with Dr. Brian Crum)

A patient with grade 3 fibrillary astrocytoma mimicking CNS lymphoma was presented. Clinical diagnostic clues in the face of pathological diagnosis was discussed.

Wednesday morning neurology conference, Mayo Clinic Rochester (Apr 2005).

“Weight loss is not always good” (with Drs Maja Tiepmann-Piekert, Claudia Lucchinetti and Mark Keegan)

A patient with adult onset urea cycle disorder that presented with recurrent hyperammonemic coma episodes and severe painful peripheral neuropathy following bariatric surgery was presented. Pathophysiology of rare heterozygosity states and benign course leading to adult onset presentations of urea cycle disorders is discussed.

Neurology Grand Rounds, Mayo Clinic Rochester, MN. (Apr 2005)

“Gender differences in multiple sclerosis: *Is it actually men to blame?*”

I presented original research findings from my residency research project done in collaboration with UCSF, demonstrating that multiple sclerosis is inherited from affected men more often than affected women to their children suggesting a higher role of genetic loading in men with MS compared to women with MS.

Neurology Grand Rounds, Mayo Clinic Rochester, MN. (Jul 2005)

“Clinicopathological conference” (with Drs. Mark Keegan and Joe Parisi)

The clinical presentation of an unfortunate patient with MS, alcoholism, vitamin B12 deficiency, ubiquitin positive fronto-temporal dementia and motor neuron disease who died of pulmonary embolism was discussed.

Friday noon neurology subspecialty conference, Mayo Clinic Rochester, MN. (Aug 2005)

“Multiple Sclerosis in the African-American patient”

Mechanisms of lower incidence and worse prognosis of multiple sclerosis in African-American patients was discussed.

Friday noon neurology subspecialty conference, Mayo Clinic Rochester, MN. (Aug 2005)

“What Should I present?”

Acute mania as a presenting symptom of multiple sclerosis is discussed.

Neurology Grand Rounds, Mayo Clinic Rochester, MN. (Jan 2006)

“MS, IFNG and Sex. Is there a connection?” (with Dr. Brian G. Weinshenker)

Association of IFNG polymorphisms with susceptibility to MS in men and gender dependent expression is discussed.

Wednesday morning neurology conference, Mayo Clinic Rochester (Oct 2007).

“Third time the charm” (with William Hu, Fausto Rodriguez, Meng Tan, Patty Atkinson)

Discussed potassium channel antibodies and their implication in differential diagnosis of limbic encephalitis.

Friday noon neurology subspecialty conference, Mayo Clinic Rochester, MN. (Dec 2007)

“On evolution, genetics, gender and epigenetics”

Modern evolutionary theory as pertinent to epigenetics and gender differences in multiple sclerosis is discussed

Mayo Clinic Department of Neurology clinico-pathological-conference (CPC) coordinator (2007-2015)

CPC conferences are held approximately 11 times a year as Mayo Clinic Department of Neurology grand rounds. These involve a complex neurological case chosen by the CPC coordinator who required a biopsy or autopsy to reach a diagnosis. After the case is prepared a senior resident is given one week of time to prepare the case for presentation without knowing the pathological diagnosis. After an introduction of the case by the CPC coordinator the resident discusses the case in front of the department and reaches a tentative diagnosis. At the end a neuropathologist reviews the pathological diagnosis. Several of these cases have been published in Neurology.

Mayo Clinic Department of Neurology resident evidence-based journal club coordinator (since 2007)

Journal club is an ACGME required educational activity open to all residents and fellows of the department B

Biomedical Engineering Seminars, Mayo Clinic Rochester (Dec 2016)

“Human Connectome, Chronic Neurological Illnesses & Extreme Athlete's Endurance Training”

A discussion of improvement in human connectome through understanding of how an extreme athlete trains and how that can be utilized in helping chronic neurological illnesses was undertaken.

Neurology Grand Rounds, Mayo Clinic Rochester, MN. (Jul 2017)

“Radiologically Isolated Syndrome: What has it taught us about MS”

A discussion of the history of evolution of this diagnosis, formation of the very productive international RIS consortium, the understanding of conversion rate to symptomatic MS and finally the ongoing ARISE trial was undertaken.

b. Teaching activities (extramural-invited professorships)

Basic and Clinical Neuroimmunology Course (April 2002, Antalya, Turkey.)

“Neuro-genetics and Neuro-immunology”

As invited lecturer. Cytokine genetics in association with multiple sclerosis pathogenesis was discussed. Examples from our extensive studies in the area were given.

Update on multiple sclerosis full-day CME course (April 2004, American Academy of Neurology meeting, San Francisco, USA - organized by Aaron Miller M.D)

“Nature or Nurture”

What is known about genetic and environmental etiology of multiple sclerosis as of 2004 was discussed as part of a full-day CME course.

Basic and Clinical Neuroimmunology Course (October 2006, Antalya, Turkey.)

“Clinically Isolated Syndromes, Natural History of MS and Whom Shall We Not Treat”

As invited lecturer. Natural history of clinically isolated syndromes and multiple sclerosis in relation to available chronic immunomodulatory treatments and lack of evidence for justifying treatment in subsets of patients were discussed.

Neurobiology of Disease Course (October 2006, University of Iowa, USA.)

“Neurobiological aspects of multiple sclerosis”

As invited lecturer. As part of an ongoing NIH supported basic neuroscience course, basic pathogenetic mechanisms, etiopathogenesis, clinical spectrum and treatment strategies with related controversies were covered in two sequential lectures.

42nd Turkish Neurological Congress (November 2006, Antalya, Turkey)

“Gender Differences in Multiple Sclerosis”

As invited speaker. The origin and influence of gender differences in multiple sclerosis was discussed. Specific contributions by our own studies in the area were presented

42nd Turkish Neurological Congress (November 2006, Antalya, Turkey)

“Remyelination in Multiple Sclerosis”

As invited speaker replacing Dr. Lucchinetti. Pathologic aspects of and therapeutic strategies involving remyelination in multiple sclerosis were discussed. Specifically, seminal contributions to the area by the Mayo Clinic investigators, Drs. Lucchinetti and Rodriguez were highlighted.

Multiple Sclerosis 2007: Update and Practical Management Strategies, Mayo Clinic Scottsdale, Arizona (Mar 2007)

“genetics of Multiple Sclerosis”

Genetic determinants of susceptibility and severity of Multiple Sclerosis were discussed as part of every other year CME course in MS

Multiple Sclerosis 2009: Update and Practical Management Strategies, Mayo Clinic Scottsdale, Arizona (Mar 2009)

“Symptomatic Therapy For MS Complications”

MS related symptoms and their management is discussed as part of every other year CME course in MS

European School of Neuroimmunology Course, (September 2009, Istanbul, Turkey)

“Urgent Treatment Needs for Transitional stages of MS”

Different stages of transition in MS and available but limited treatment options for these stages are discussed.

46th Turkish Neurological Congress (December 2010, Antalya, Turkey)

“Multiple sclerosis, Sex and Darwin”

Gender based-inheritance of MS was discussed in light of new epigenetic evolutionary theories that extend Darwinism

46th Turkish Neurological Congress (December 2010, Antalya, Turkey)

“Presenting your work”

How to make efficient platform and poster presentations in international meetings was discussed (CME course for Turkish neurologists)

46th Turkish Neurological Congress (December 2010, Antalya, Turkey)

“MS therapy night”

Panelist as a discussant of diagnostic and treatment challenges in select cases with demyelinating disease were discussed as part of a panel of experts (CME course for Turkish neurologists)

Multiple Sclerosis 2011: Update and Practical Management Strategies. Mayo Clinic Scottsdale, Arizona (March 2011)

“Update on Natalizumab Therapy and PML”

Up to date information on suitable situations to use Natalizumab and stratification of PML risk with relatively safe therapeutic windows was discussed as part of an every other year CME course in MS.

48th Turkish Neurological Congress (November 2012, Antalya, Turkey)

“Age dependence of progressive multiple sclerosis”

The importance of age in determining onset of progressive MS is discussed.

48th Turkish Neurological Congress (November 2012, Antalya, Turkey)

“Presenting your work”

How to make efficient platform and poster presentations in international meetings was discussed (CME course for Turkish neurologists)

48th Turkish Neurological Congress (November 2012, Antalya, Turkey)

“MS therapy night”

Panelist as a discussant of diagnostic and treatment challenges in select cases with demyelinating disease were discussed as part of a panel of experts (CME course for Turkish neurologists)

Multiple Sclerosis 2013: Update and Practical Management Strategies. Mayo Clinic Scottsdale, Arizona (March 2013)

“Update on Natalizumab Therapy and PML risk”

Up to date information (updated from 2011) on suitable situations to use Natalizumab and stratification of PML risk with relatively safe therapeutic windows was discussed as part of an every other year CME course in MS.

Controversies in Neurology (April 2013)

“PPMS and SPMS are the same disease”

Invited debater arguing why based on similar pathology, age at onset of progressive phase of MS and similar MRI findings that PPMS and SPMS are the same regarding the progressive phase. The difference, as pointed out has nothing to do with the progressive phase but rather is related to whether or not the preceding relapsing phase is symptomatic or not.

Istanbul MS days (Oct 2013)

“Life after CIS – Natural History of MS”

The updated natural history of MS in 2013 was discussed.

2nd Nordic MS-symposium (Stockholm 31st Jan-1st Feb 2014)

“The Switches in MS from RIS to relapses to progression”

Invited lecturer. Predictors of switches from one phase of MS to another and its relevance to treatment implications were discussed.

Istanbul MS days (Oct 2014)

“ Individualized Treatment Model for MS - integrating biology, natural history & pathology with DMDs”

The new definitions of different phases of MS in 2014, how they interact with relapses and how they impact the treatment decisions when biology and pathology information are combined was discussed.

Istanbul MS days (Nov 2015)

“Individual Variations in Determining Early Aggressive Treatment Decisions in MS”

The choice of the right patients for application of aggressive early MS treatment decisions was discussed.

Invited Professorship – Biogen Inc. (Mar 2016)

“Planning the future of recovery trials: Can we prevent progressive MS ?”

Invited professorship. The concept and utility of clinical timing and phases of MS as related to introduction initiation of reparative therapies in MS was discussed

No conflict of interest for Dr. Kantarci reported (Biogen consultant fee was directly transferred to Mayo Clinic)

Invited Professorship – Wake Forest School of Medicine – Neurology grand rounds (Oct 2016)

“Phases of MS: when and how we get to progressive MS”

Invited professorship. The predictors of progressive phase of MS and how that applies to clinical decision making was discussed.

Multiple Sclerosis 2017: Update and Practical Management Strategies. Mayo Clinic Scottsdale, Arizona (Feb 2017)

“From RIS to progressive MS; course of MS and changing it”

Up to date information on natural history of MS and using currently and future available treatments to change it was discussed.

c. Extramural reviewer responsibilities for the following journals:

Journal of Neuroimmunology

Journal of Neurology

European Journal of Neurology

Journal of Neurology, Neurosurgery and Psychiatry

Neurology

Multiple Sclerosis

Canadian Journal of Neurology

PLoS ONE

Current Molecular Medicine

Trends in Neuroscience

Clinica Chimica Acta

New England Journal of Medicine

d. Extramural reviewer responsibilities in study panels (past and current):

American Institute of Biological Sciences Scientific Peer Advisory and Review Committee

National Multiple Sclerosis Society – grant review committee D (active member since 2012)

11. INSTITUTIONAL/DEPARTMENTAL ADMINISTRATIVE RESPONSIBILITIES, COMMITTEE MEMBERSHIPS, AND OTHER ACTIVITIES

Department of Neurology, research committee member (2002-2005; 2008-active)

Department of Neurology, resident journal club director (July 2008-active)

Department of Neurology, clinicopathological conference director (July 2008-2015)

Mayo Clinic Center for Multiple Sclerosis and CNS Demyelinating Diseases, administrative committee member (July 2010 – 2015)

Mayo Clinic Biomedical Engineering and Physiology recruitment committee (2016)

12. PRESENTATIONS AT NATIONAL AND INTERNATIONAL MEETINGS (in chronological order, * marks studies where a trainee has been supervised by Dr. Kantarci – 19/72)

- 1) Siva A, Kantarci O, Saip S, Karaali F, Karantay F, Eraksoy M, Kurt BB, Akman GD, Karabudak R, Gürsoy Y, Tanik O, Agaoglu J, Akyatan N, Togrul E, Kirbas D, Sütlas N, Özmenoglu M. The first symptom of multiple sclerosis correlated with gender, course and disability in Turkish MS patients. 5th meeting of the European Neurological Society. June 17-21, 1995, Munich / J.Neurol.1995,242:6 Suppl:P121
- 2) Sav A, Siva A, Eraksoy M, Öz B, Sütlas N, Saip S, Karaali F, Kurt BB, Kurtkaya O, Kantarci O. Clinical and MRI correlation with histopathological features in primary demyelinating-inflammatory diseases of the CNS. The 10th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Athens, Greece November 4-5, 1994 p.135-139.
- 3) Çetinel B, Siva A, Hekimzade R, Saip S, Karaali F, Kantarci O. Urologic status in multiple sclerosis with respect to extended disability status scale (EDSS): A preliminary report. The 10th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Athens, Greece November 4-5, 1994 p.180-183.
- 4) Siva A, Kantarci O, Saip S, Karaali F, Karantay F. Demographical and clinical aspects of Turkish MS patients. The 10th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Athens, Greece November 4-5, 1994 p.237-240.
- 5) Turkish Multiple Sclerosis Study Group (TUMSSG); Siva A, Kantarci O, Senocak M, Saip S, Karaali F, Karantay F, Eraksoy M, Akman GD, Karabudak R, Gürsoy Y, Tanik O, Agaoglu J, Akyatan N, Togrul E, Kirbas D, Sütlas N, Özmenoglu M. Onset Symptoms and disability according to the age at onset in Multiple Sclerosis. The 11th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Jerusalem, Israel Sept.3-6, 1995. J.Neuroimmunology, 1995, Suppl 1:51
- 6) Siva A, Karaali F, Karantay F, Saip S, Kantarci O. Sulphasalazine in Multiple Sclerosis. The 11th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Jerusalem, Israel Sept.3-6, 1995. J.Neuroimmunology, 1995, Suppl 1:51
- 7) Saip S, Siva A, Kantarci O, Altintas A, Göksan B, Denktas H. The clinical aspects of cluster headache. 7th international Symposium. The Pain Clinic October 2-6 1996 Istanbul, Turkey. Abstract book, 1996: p.354
- 8) Akman GD, Öktem ÖT, Tumeç A, Kurt BB, Saip S, Altintas A, Kantarci O, Siva A, Eraksoy M. Cognitive impairment in MS. The 12 th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Copenhagen, Denmark Sept.26-28 1996. European Journal of Neurology, 1996; 3 (Suppl 4):65
- 8) Turkish Multiple Sclerosis Study Group (TUMSSG); Siva A, Kantarci O, Senocak M, Saip S, Karaali F, Karantay F, Eraksoy M, Akman GD, Karabudak R, Gürsoy Y, Tanik O, Agaoglu J, Akyatan N, Togrul E, Kirbas D, Sütlas N, Turan F, Özmenoglu M. Prognostic Factors in Turkish MS patients. The 12th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Copenhagen, Denmark Sept.26-28 1996. European Journal of Neurology, 1996; 3 (Suppl 4):23

- 10) Siva A, Saip S, Kantarci O, Koçer N, Islak C, Altintas A, Hamuryudan V, Yazici H. Neuro-Behçet Syndrome: Clinical and imaging correlates. *Neurology* 1997; 48(3):560001, Suppl 2
- 11) Siva A, Altintas A, Kantarci O, Karaali F, Göksan B, Denktas H. Sodium valproate treatment of chronic daily headache. *Cephalalgia* 1997; 17: 460-461
- 12) Karaali F, Kantarci O, Bozkus H, Savrun M, Biçakçi S, Saip S, Altintas A, Göksan B, Siva A. Headache in the Elderly. 8th Congress of The International Headache Society, Abstracts. *Cephalalgia*, May 1997;17(3):311.
- 13) Karaali F, Savrun M, Kiziltan M, Saip S, Mirsal H, Kantarci O, Uzun N, Siva A. Extroceptive suppression of temporalis muscle activity in headache. 8th Congress of The International Headache Society, Abstracts. *Cephalalgia*, May 1997;17(3):356.
- 14) Turkish Multiple Sclerosis Study Group (TUMSSG); Kantarci O, Siva A, Saip S, Karaali F, Karantay F, Eraksoy M, Akman GD, Karabudak R, Gürsoy Y, Tanik O, Agaoglu J, Akyatan N, Togrul E, Kirbas D, Sütlas N, Turan F, Özmenoglu M. Natural History and Prognosis in Turkish MS patients. The 13 th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Istanbul, Turkey November-1997.
- 15) Altintas A. Kantarci O, Hekim N, Öztuzcu S, Saip S, Siva A. Serum and CSF cytokine levels in different forms of Multiple Sclerosis. The 13 th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Istanbul, Turkey November-1997.
- 16) Altintas A, Yilmaz E, Kantarci O, Erdogan E, Saip S, Siva A. HLA typing in Turkish multiple sclerosis patients. *Multiple Sclerosis* 1998;4(4):356,P2091
- 17) Kantarci O, Siva A, Eraksoy M, Karabudak R, Sutlas N, Agaoglu J, Turan F, Ozmenoglu M, Demirkiran M. Predictors of disability in Turkish MS patients. *Neurology* 1998;50(4):A210, Suppl 4
- 18) Kantarci OH, Hebrink DD, Atkinson EJ, McMurray CT, Weinshenker BG. A population-based association study of a functionally important polymorphism at an SP1 consensus site in the myeloperoxidase gene promoter region with susceptibility and prognosis in multiple sclerosis. *Neurology* 1999;52(6): A439-A440, Suppl. 2
- 19) Kantarci OH, Atkinson EJ, Hebrink DD, McMurray CT, Weinshenker BG. A Population-based association study of two polymorphisms in the IL-1 β and IL-1 receptor antagonist genes with susceptibility to and severity of multiple sclerosis. *Ann Neurol* 1999;46:(3) 456-457
- 20) Weinshenker BG, Hebrink DD, Kantarci O, Atkinson EJ, McMurray CT. A comprehensive screen for genetic variation in the transforming growth factor beta 1 gene in multiple sclerosis. *Am J Hum Genet* 1999;65: (4) A472 Suppl S
- 21) Kantarci OH, Hebrink DD, Atkinson EJ, McMurray CT, Weinshenker BG. A comprehensive screen for genetic variation in the interferon-gamma gene in multiple sclerosis. *Neurology* 2000;54:(7) A325, Suppl 3

- 22) Kantarci OH, Hebrink DD, Atkinson EJ, de Andrade M, McMurray CT, Weinshenker BG. A Population-based association study of apolipoprotein E variants with multiple sclerosis. *Ann Neurol* 2000;48:(3)450
- 23) Kantarci OH, Atkinson EJ, de Andrade M, McMurray CT, Weinshenker BG. A comprehensive screen of *CTLA-4* variants associated with multiple sclerosis. *Neurology* 2001;56(3):A95
- 24) Kantarci OH, Atkinson EJ, Hebrink DD, deAndrade M , McMurray CT, Weinshenker BG. Polymorphisms of CTLA-4 gene are associated with susceptibility to multiple sclerosis. Mayo Research Forum, September 21-22, 2001, Rochester, MN
- 25) Singh G, Haluska V, Kantarci O, McMurray CT. Prodynorphin gene polymorphisms in schizophrenia: An association study. *Am J Med Genet* 2001;105 (7):P80
- 26) Kantarci OH, Schaefer-Klein JL, Achenbach SJ, Atkinson EJ, McMurray CT, Weinshenker BG. A population. based study of IL4 polymorphisms in MS. *Neurology* 2002;58 (7): A462-A462 Suppl. 3
- 27) Weinshenker BG, Hebrink DD, Kantarci OH, Achenbach SJ, Atkinson EJ, McMurray CT Association study of fas and FasL polymorphisms with multiple sclerosis. *Am J Hum Genet* 2002;71(4): 1806 Suppl. S
- 28) Kantarci OH, Hebrink DD, Achenbach SJ, Pittock S, Altintas A, Atkinson EJ, deAndrade M , McMurray CT, Rodriguez M, Weinshenker BG. Population-based study of *ApoE* polymorphisms and course and severity of MS. *Neurology* 2003 (presented in the annual meeting of the American Academy of Neurology in Honolulu, Hawaii, April 2003)
- 29) Morales Y, Kantarci OH, Konig F, Bruck W, Achenbach SJ, McClelland RL, Moore SB, Lassmann H, Lucchinetti CF. An association study of HLA class II alleles and immunopathological patterns in multiple sclerosis. The 20th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Vienna, Austria, October 2004. *Multiple Sclerosis* 2004;10(supp 2):S203
- 30) Kantarci OH, Ziemer P, Konig F, Bruck W, Lassmann H, Lucchinetti CF. Gender differences in Immunopathological patterns of Multiple Sclerosis. The 20th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Vienna, Austria, October 2004. *Multiple Sclerosis* 2004;10(supp 2):S154
- 31) Kantarci OH, Barcellos LF, Oksenberg JR, Atkinson EJ, Lincoln R, de Andrade M, Weinshenker BG, Hauser S. Men with MS transmit the disease more often to their children than women: The Carter effect. The 20th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Vienna, Austria, October 2004. *Multiple Sclerosis* 2004;10(supp 2):S203
- 32) Kantarci OH, Hebrink DD, Achenbach SJ, Schafer-Klein J, Atkinson EJ, Goris A, Heggarty S, de Andrade M, McMurray CT, Vandenbroeck K, Pelfrey C, Weinshenker BG. IFNG polymorphisms are associated with interferon gamma expression in men with multiple

sclerosis. (presented at the annual meeting of the American Academy of Neurology in San Diego, California, April 2006)

33) Kantarci OH, Daugherty P, Rodriguez FJ, Shaw EG, Parisi JE, Atkinson JLD, Lucchinetti CF. Primary Amyloidoma of the Brain treated with radiation therapy. (presented at the annual meeting of the American Academy of Neuropathology in San Francisco, October 2006)

34) Siva A, Altintas A, Saip S, Kocer N, Islak C, Kantarci O. Evolution of “Asymptomatic Multiple Sclerosis” into Clinically Isolated Syndromes. (presented at the annual meeting of the American Academy of Neurology in Boston, MA April-May 2007). Neurology 2007;68(12)(suppl):P04.069.

35*) Matiello M, Weinshenker B, Hebrink D, Atkinson E, Kantarci O. PVRL2 and APOE polymorphisms and severity of multiple sclerosis. The 23rd congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Prague, Czech Republic, 11-14 October 2007.

36) Jacob A, Weinshenker B, Matiello M, Wingerchuk D, Carter J, Kantarci O, Keegan M, Shuster E, Lucchinetti C, Pittock S. Treatment of neuromyelitis optica with mycophenolate: retrospective analysis of 25 cases. The 23rd congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Prague, Czech Republic, 11-14 October 2007.

37*) Matiello M, Weinshenker B, Schaefer-Klein JL, Kantarci OH. IL2RA analysis in MS patients. Neurology; 70 (11) (suppl 1) A335-A335

38) Kantarci O, O’Doherty C, Atkinson EJ, Vandebroek K, Weinshenker B. IL7RA polymorphisms and disease severity in multiple sclerosis. The 24th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Montreal, Canada, 17-20 September 2008. P142

39) Matiello M, Magana S, Pittock S, Lennon V, McKeon A, Kantarci O, Shuster E, Rabinstein A, Lucchinetti C, Weinshenker B. Posterior reversible encephalopathy syndrome in neuromyelitis optica. . The 24th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Montreal, Canada, 17-20 September 2008. P358

40) Matiello M, Kantarci O, Brum D, Schaefer-Klein J, Weinshenker B on behalf of the NMO genetics consortium. HLA DRB1*1501 tagging rs3135388 polymorphism associated with multiple sclerosis is inversely associated with NMO. The 25th congress of the European Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Düsseldorf , Germany, 9 - 12 September 2009.

41*) Abou Zeid N, Kale N, Atkinson E, Kantarci O. Secondary progression is associated with worse long-term outcome than primary progression in multiple sclerosis (ECTRIMS) Düsseldorf , Germany, 9 - 12 September 2009.

42*) Kale N, Abou Zeid N, Atkinson E, Kantarci O. Determinants of long-term outcome in clinical subtypes of progressive multiple sclerosis. The 25th congress of the European

Committee for treatment and Research in Multiple Sclerosis (ECTRIMS) Düsseldorf , Germany, 9 - 12 September 2009.

43*) Tang J, Abou Zeid N, Kale N, Crusan DJ, Atkinson EJ, Kantarci OH. Motor disability in progressive multiple sclerosis is independently worsened by relapses before and after progression. *Neurology*; 74 (suppl 2) A68.

44) Kantarci OH, Atkinson EJ, Cunningham J, Weinshenker BG. Age dependent sex-stratified methylation of *INFG* in multiple sclerosis. ANA September 12-15, 2010, San Francisco.

45*) Tang J, Crusan DJ, Tutuncu M, Abou Zeid N, Kale N, , Atkinson EJ, Kantarci OH. Cerebrospinal fluid determinants of outcome in progressive multiple sclerosis. *Neurology*; 76 (suppl 4) A65

46) Lebrun CF, Kantarci O, Siva A, Pelletier D, Okuda D. Impact of pregnancy on radiologically isolated syndrome (RIS). *Neurology*; 76 (suppl 4) A273

47*) Tutuncu M, Tang J, Abou Zeid N, Kale N, Crusan DJ, Atkinson EJ, Kantarci OH. Posterior fossa and cervical lesion distribution in progressive multiple sclerosis. *Neurology*; 76 (suppl 4) A390

48*) Jansons LL, Atkinson EJ, Cunningham JM, Weinshenker BG, Kantarci OH. Does smoking really impact progression in multiple sclerosis. Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) Amsterdam 2011.

49*) Tutuncu M, Tang J, Abou Zeid N, Kale N, Crusan D, Atkinson E, Siva A, Pittock S, Pirko I, Keegan M, Lucchinetti C, Noseworthy J, Rodriguez M, Weinshenker BG, Kantarci O. (ECTRIMS) Lyon, France, 2012. Do all RRMS patients develop SPMS?

50) Okuda D, Siva A, Kantarci OH, Inglese M, Montalban X, Rovira A, Tintoré M, De Stefano N, Sormani MP, Pelletier D, Lebrun C. Radiologically Isolated Syndrome: 5-Year Risk for an Initial Clinical Event from a Multinational Cohort. Contemporary Clinical Issues Planary Session, AAN 2013, San Diego.

51) Kantarci OH. Primary progressive MS and secondary progressive MS are different manifestations of a single disease. *Controversies in Neurology* 2013, Istanbul, Turkey

52) Kantarci OH, Okuda DT, Siva A, Inglese M, Tintore M, Amato MP, De Stefano N, Sormani MP, Pelletier D, Lebrun C . Submitted on behalf of the Radiologically Isolated Syndrome Consortium (RISC) and Club Francophone de la Sclerose en Plaques (CFSEP). First report of the pre-progression prospective follow-up in a series of patients with primary progressive multiple sclerosis evolving from radiologically isolated syndrome. ECTRIMS 2013, Copenhagen, Denmark

53*) Paz Soldan MM, Novotna M, Crusan DJ, Atkinson EJ, Kantarci OH. Pre- and Post-Progression Relapses Impact Disability in Progressive MS. ECTRIMS 2013, Copenhagen, Denmark.

54*) Novotna M, Tutuncu M, Paz Soldan MM, Crusan DJ, Atkinson EJ, Kantarci OH. Early Relapse Recovery Impacts Progressive Disease Course In Multiple Sclerosis. AAN 2014, Philadelphia, USA.

- 55*) Novotna M, De Felice KM, Enders FT, Faubion WA, Tremaine WJ, Raffals LE and Kantarci OH . Idiopathic inflammatory demyelinating disease of the central nervous system in patients with inflammatory bowel disease. ECTRIMS 2014, Boston USA
- 56) Siva A, Tutuncu M, Kantarci O, Uygunoglu U, Acar P, Kurne A, Keegan M, Altintas A, Saip S, Karabudak R, Pelletier D, Okuda D, Lebrun CF, Radiologically Isolated Syndrome Consortium (RISC), Club Francophone de la Sclérose en Plaques (CFSEP). Are individuals with Radiologically Isolated Syndrome have a different clinical outcome once they convert to Clinically Isolated Syndrome? AAN 2015, Boston USA
- 57) Okuda D, Lebrun C , Siva A, Hotermans C, Von Hehn C, Sormani MP, Brent D, Remington G, Newton BD, Frohman T, Frohman E, Kantarci OH, Pelletier D. Multi-center randomized, double-blinded assessment of Tacfidera in extending the time to a first attack in radiologically isolated syndrome (RIS)(ARISE). ECTRIMS 2015, Barcelona Spain
- 58) Keegan M, Guo Y, Okuda D, Siva A, Pelletier D, Kantarci O, Lucchinetti C, Frenay CL. Radiologically Isolated Syndrome: Pathologically Defined as Demyelinating Disease. AAN 2016, Vancouver CA
- 59) Solomon AJ, Bourdette DN, Cross AH, Applebee A, Skidd PM, Howard DB, Spain RI, Cameron MH, Kim E, Mass MK, Yadav V, Whitham RH, Longbrake EE, Naismith RT, Wu GF, Parks BJ, Wingerchuk DM, Rabin BL, Toledano M, Tobin WO, Kantarci OH, Carter JL, Keegan BM, Weinshenker BG. The spectrum of multiple sclerosis misdiagnosis in the era of McDonald criteria: A multicenter study. AAN 2016, Vancouver CA
- 60*) Zeydan B, Uygunoglu U, Saip S, Demirci ON, Seyahi E, Ugurlu S, Hamuryudan V, Siva A, Kantarci O. Infliximab for Treatment Refractory Neuro-Behçet Syndrome. AAN 2016, Vancouver CA.
- 61) Keegan M, Kaufmann T, Weinshenker B, Kantarci O, Schmalstieg W, Paz Soldan M, Flanagan E. Progressive Solitary Sclerosis: Insidious Motor Impairment Localized to an Isolated CNS Demyelinating Lesion. AAN 2016, Vancouver CA.
- 62*) Novotna M, Conway B, Zeydan B, Paz Soldan M, Abou Zeid N, Kale N, Tutuncu M, Kantarci O Predicting the End of Symptomatic Relapses and Disease Modifying Treatment Use Decisions in Progressive Multiple Sclerosis. AAN 2016, Vancouver CA.
- 63) Makhani N, Frenay CL, Siva A, Carra-Dalliere C, De Seze J, Dubief FD, Kantarci O, Langille M, Pelletier J, Rojas JI, Schreiner T, Tintore M, Uygunoglu U, Okuda D, Pelletier D, Observatoire Francophone de la Sclérose en Plaques (OFSEP), Société Francophone de la Sclérose en Plaques (SFSEP), Radiologically Isolated Syndrome Consortium (RISC). Pediatric Radiologically Isolated Syndrome: Clinical and Radiological Outcomes. AAN 2016, Vancouver CA.
- 64*) Zeydan B, Uygunoglu U, Seyahi E, Ugurlu S, Saip S, Kantarci O, Siva A. Spinal Cord Involvement in Neuro-Behçet Syndrome. AAN 2016, Vancouver CA.
- 65) Thouvenot E, Hinsinger G, Demattei C, Uygunoglu U, Castelnovo G, Pittion-Vouyovitch S, Okuda D, Kantarci O, Pelletier D, Lehmann S, Marin P, Siva A, Lebrun CF. High cerebrospinal fluid chitinase-3 like protein 1 levels increase the risk of conversion from radiologically isolated syndrome to definite multiple sclerosis. ECTRIMS 2016, London UK

- 66) Lebrun C, Siva A, Kantarci O, Azevedo C, Sormani MP, Pelletier D, Okuda D. Multi-center, randomized, double-blinded assessment of teriflunomide in extending the time to a first clinical event in radiologically isolated syndrome (RIS) (TERIS study). ECTRIMS 2016, London UK
- 67*) Conway BL, Zeydan B, Novotna M, Paz Soldan MM, Tutuncu M, Siva A, Rodriguez M, Kantarci OH. Amount and time to maximal recovery from multiple sclerosis relapses declines with age. ECTRIMS 2016, London UK
- 68*) Zeydan B, Lowe V, Schwarz CG, Przybelski SA, Lesnick TG, Senjem ML, Jack CR, Petersen RC, Kantarci OH, Kantarci K. Late MS is not associated with increased B-amyloid deposition. ECTRIMS 2016, London UK
- 69*) Zeydan B, Gu X, Keegan BM, Weinshenker BG, Pelletier D, Azevedo CJ, Lebrun FC, Siva A, Okuda D, Kantarci K, Kantarci OH. Cervical spinal cord atrophy is an early marker of progressive MS onset. ECTRIMS 2016, London UK
- 70) Lebrun F C, Siva A, Kantarci O, Azevedo C, Sormani MP, Pelletier D and Okuda D. Multi-center, randomized, double-blinded assessment of teriflunomide in extending the time to a first clinical event in radiologically isolated syndrome (RIS): The TERIS study. AAN 2017, Boston MA.
- 71) Makhani N, Lebrun C, Siva A, Narula S, Wassmer E, Brenton JN, Dalliere CC, De Seze J, Dubief DF, Langille M, Neuteboom RF, Pelletier J, Pohl D, Rojas JI, Shapiro ED, Stone RT, Tenenbaum S, Tintore M, Uygunoglu U, Vargas W, Kantarci O, Okuda DT, Pelletier D. Comparison of MRI Dissemination in Space Criteria for Predicting a First Clinical Event in Children with the Radiologically Isolated Syndrome. AAN 2017, Boston MA.
- 72*) Zeydan B, Lowe VJ, Schwarz CG, Przybelski SA, Tosakulwong N, Zuk SM, Senjem ML, Gunter JL, Roberts RO, Mielke MM, Benarroch EE, Rodriguez M, Machulda MM, Lesnick TG, Knopman DS, Petersen RC, Jack CR Jr, Kantarci K, Kantarci OH. Pittsburgh compound-B PET and MRI biomarkers of cognition in aging MS patients. AAN 2017, Boston MA.
-

13. CLINICAL PRACTICE, INTERESTS AND ACCOMPLISHMENTS

Behcet's Disease:

We have published the largest series defining the clinical and prognostic aspects of neurological involvement in this disorder guiding physicians who encounter this condition often. Although rare in the western hemisphere this is a disease commonly encountered in middle-east, eastern Mediterranean and far-east countries. Our studies represented the original definition of MRI features and definitive description of clinical categories of neurological involvement in Behcet's disease. Most recently we have established the use of TNF-alpha blocker use as a second-line agent in neuro-behctet syndrome refractory to other immunosuppressive treatments.

Idiopathic inflammatory-demyelinating disorders of the central nervous system:

This spectrum of disorders is typified by multiple sclerosis. This has been a major interest area for me both in clinical practice and in research. Together with Dr. Aksel Siva, I have established the largest multicenter database for multiple sclerosis in Turkey. We have conducted the first internationally recognized natural history study of MS in Turkey utilizing this database.

While in Mayo Clinic, under guidance of Dr. Brian G. Weinschenker, I have made multiple contributions to the understanding of genetic aspects of this disease. Since the original appointment as Senior Associate Consultant in Neurology, I am actively involved as PI on several projects on genetics and natural history of multiple sclerosis.

I have recently completed as part of a CR20 program through the CTSA the first epigenetic study in understanding the methylation based differences in the IFNG pathway as related to age and gender in normal controls and patients with MS. This study has formed the basis of an upcoming grant application and manuscript in submission.

Recently we have furthered our understating of clinical progression in multiple sclerosis with a series of presentations and publications. We have defined definitively that progressive phase of MS is age-dependent and not related to previous relapsing disease duration. We have shown that ongoing relapses after progressive MS onset continue to contribute to additional disability. We have published that recovery from earliest relapses impact when and how fast a person will enter the progressive phase of MS. With completion of these studies we make the argument that impacting onset of progressive MS has to be thought of at the beginning of MS by intervening and recovering from relapses fully as well as avoiding further relapses early on when the disease is most active.

We have defined and independently published the diagnostic criteria of radiologically isolated syndrome (RIS). We have formed the international RIS consortium and published the first large natural history of this cohort showing the conversion rate of RIS to MS. This forms the basis of a recently started multicenter trial where we are testing first time if treatment at this stage can ultimately prevent clinical MS onset.

Monitoring activity levels in patients with MS

Through a collaboration with our engineering colleagues (Dr. Barry Gilbert) we have designed a Measurement-Quality Body-Worn Physiological Monitor for Use in Harsh Environments.

The design of the unit is being published and we have collected normalized data from healthy volunteers. The unit will serve as an outcome measure in several trials that are under planning.

14. RESEARCH INTERESTS (Current)

Natural History and predictors of outcome in multiple sclerosis
Natural History and predictors of outcome in radiologically isolated syndrome.
Natural History and imaging findings of Neuro Behcet Syndrome
Genetic and epigenetic determinants of multiple sclerosis susceptibility and severity
Gender differences in multiple sclerosis

15. RESEARCH GRANTS AWARDED

Apr 1998 - Jun 1998	<u>NATO Science Fellowship</u> award to support salary for a period of three months from April 1998 to June 1998 in Mayo Clinic Rochester, MN for a research trainee position with Dr. Brian Weinshenker to study "Genetic epidemiology of multiple sclerosis"
Jul 1999 - Jul 2001	<u>National Multiple Sclerosis Society Advanced Fellowship</u> award to support a research fellowship position in Mayo Clinic Rochester, MN for a period of two years starting from July 1st, 1999 to study "CTLA-4 and CD28 polymorphisms and susceptibility to and severity of multiple sclerosis"
October 2006-2012	<u>National Multiple Sclerosis Society Pilot Research Award</u> to support the costs of the study entitled "Non-Ambulatory Impairment in Benign Multiple Sclerosis", Orhun H. Kantarci, M.D. as PI.
Dec 2006- Dec 2007	<u>Department of Neurology, Internal Discretionary Funds for Research</u> to support the study entitled "Re- analyses of Genome-Wide Linkage, Considering Parent of Origin Effect Utilizing the Existing International Multiple Sclerosis Genomic Consortium Database", Orhun H. Kantarci, M.D. as PI.
August 2007	<u>Department of Neurology, Small Grants Award</u> to support "Genetic Analysis of IL-2RA Genes on Multiple Sclerosis Patients." Orhun H. Kantarci, M.D. as PI.
December 2007	<u>Department of Neurology, Internal Discretionary Funds for Research</u> to support the study entitled "Association of <i>IL7Ra</i> Polymorphisms with Severity of Multiple Sclerosis", Orhun H. Kantarci, M.D. as PI.
December 2007	<u>Department of Neurology, Internal Discretionary Funds for Research</u> to support the study entitled "Re-analyses of genome-wide linkage, considering a parent-of-origin effect utilizing the existing International Multiple Sclerosis Genomic Consortium Database. Phase-2. ", Orhun H. Kantarci, M.D. as PI.

July 2008- 2011	<u>CR20 award</u> to support the study entitled “Gender dependent epigenetic regulation of <i>IFNG</i> in multiple sclerosis”, Orhun H. Kantarci, M.D. as PI
December 2008 – 2012	<u>Hilton Foundation for Multiple Sclerosis</u> to support the study entitled “Human Monoclonal Antibody Therapy for Neuronal Protection in Multiple Sclerosis”, Moses Rodriguez, M.D. as PI, Orhun H Kantarci as CI (15% effort)
February 2009	<u>Department of Neurology, Internal Discretionary Funds for Research</u> to support the study "Characterization of Subgroup Phenotypes in Patients with Progressive Multiple Sclerosis", Orhun H. Kantarci, M.D. as PI.
Jan 2011 – Dec 2015	<u>European Regional Development Fund - Project FNUSA-ICRC (No. CZ.1.05/1.1.00/02.0123)</u> Orhun H. Kantarci, M.D. as PI (20% effort).
Jul 2015 – Jun 2016	Safety and Efficacy of ADS-5102 (amantadine HCl) Extended Release Capsules in Patients with Multiple Sclerosis and Walking Impairment. Funded by Adamas Pharmaceuticals. (ADS-AMT-MS201) Orhun H. Kantarci, M.D. as CI
Sep 2016 – Aug 2018	Multi-center, randomized, double-blinded assessment of Tecfidera® in extending the time to a first attack in radiologically isolated syndrome (RIS) (ARISE). Funded by Biogen Idec. Orhun H. Kantarci, M.D. as site PI (10% effort).
Jan 2017 – Jan 2018	Re-analyses of champs and champions data. Funded by Biogen Idec. Orhun H. Kantarci, M.D. as PI (10% effort).

16. BIBLIOGRAPHY (in chronological order. * marks studies where a trainee has been supervised by Dr. Kantarci or Dr. Kantarci is the senior or corresponding author 24/60)

H index: 23, Citation of all listed work (excluding self-citations): 1631 (as of last update listed in ISI Web of Knowledge)

Thesis in Neurology (In Turkish):

Kantarci O. Neurologic involvement in Behçet's Disease: Prognostic factors. Istanbul University, Cerrahpasa School of Medicine 1998.

Original, Peer Reviewed articles:

- 1) Kantarci O, Siva A, Eraksoy M, Karabudak R, Sutlas N, Agaoglu J, Ozmenoglu M, Turan F, Togrul E. Survival and predictors of disability in Turkish MS patients. Turkish Multiple Sclerosis Study Group (TUMSSG). Neurology 1998;51(3):765-72
- 2) Koçer N, Islak C, Siva A, Saip S, Akman C, Kantarci O, Hamuryudan V. CNS involvement in Neuro-Behçet's syndrome: an MR study. AJNR 1999;20:1015-1024
- 3) Kantarci OH, Atkinson EJ, Hebrink DD, McMurray C, Weinshenker BG. Association of a Myeloperoxidase Promoter Polymorphism with Multiple Sclerosis. J Neuroimmunol 2000;105:189-194
- 4) Kantarci OH, Atkinson EJ, Hebrink DD, McMurray C, Weinshenker BG. Association of two variants in IL-1 β and IL-1 receptor antagonist genes with multiple sclerosis. J Neuroimmunol 2000;106:220-227
- 5) Jacobsen M, Schweer D, Ziegler A, Gaber R, Schock S, Schwinzer R, Lindert RB, Kantarci O, Schaefer-Klein J, Schipper HI, Wonigeit K, Oertel WH, Heidenreich F, Weinshenker BG, Sommer N, Hemmer B. A point mutation in PTPRC (CD45) is associated with the development of multiple sclerosis. Nat Genet. 2000;26(4):495-9.
- 6) Weinshenker BG, Kantarci OH. Seeking genes for MS: Big risks for big gains. Neurology 2000;54:542-544 (**Editorial**)
- 7) Siva A, Kantarci OH, Saip S, Altintas A, Hamuryudan V, Islak C, Kocer N, Yazici H. Behçet's disease: diagnostic & prognostic aspects of neurological involvement. J Neurol 2001;248 (2): 95-103
- 8) Weinshenker BG, Hebrink DD, Atkinson EJ, Kantarci OH. Association of Tumor Necrosis Factor α Polymorphism with MS susceptibility. Neurology. 2001;57(7):1341-2.
- 9) Weinshenker BG, Hebrink DD, Kantarci OH, Klein JS, Atkinson EJ, Schaid D, McMurray CT. Genetic variation in transforming growth factor β 1 gene in multiple sclerosis. J Neuroimmunol. 2001;120(1-2):138-45.

- 10) Kantarci OH, Lesnick TG, Yang P, Hebrink DD, McMurray CT, Weinshenker BG. Myeloperoxidase -463 (G-->A) polymorphism associated with lower risk of lung cancer. *Mayo Clin Proc.* 2002;77(1):17-22
- 11) Kantarci OH, Hebrink DD, Achenbach SJ, Atkinson EJ, Waliszewska A, Buckle G, McMurray CT, de Andrade M, Hafler DA, Weinshenker BG. *CTLA4* is associated with susceptibility to multiple sclerosis. *J Neuroimmunol.* 2003;134:133-141
- 12) Kantarci OH, Schaefer-Klein J, Hebrink DD, Achenbach SJ, Atkinson EJ, de Andrade M , McMurray CT, Weinshenker BG. A population-based study of *IL4* polymorphisms in multiple sclerosis. *J Neuroimmunol.* 2003, 137:134-139
- 13) Kantarci OH, Hebrink DD, Achenbach SJ, Pittock S, Altintas A, Atkinson EJ, deAndrade M , McMurray CT, Rodriguez M, Weinshenker BG. Association of *apoE* polymorphisms with disease severity in MS is limited to women. *Neurology.* 2004, 65 (5), 811-814
- 14) Kantarci OH, Hebrink DD, Achenbach SJ, Atkinson EJ, deAndrade M , McMurray CT, Weinshenker BG. A population-based association study of *Fas* and *FasL* polymorphisms in multiple sclerosis. *J Neuroimmunol.* 2004, 146: 62-170
- 15) Blacker DJ, Kantarci OH, Cloft H, Friedman JA. More than a pain in the neck: Vertebral Artery Dissection and Subarachnoid Hemorrhage. *Critical Care Neurology.* 2004, 1(1):95-98
- 16) Erdogan A, Baki O, Kantarci O, Akisik G, Kayaalp L, Yalcinkaya C. Anxiety and depression in children with epilepsy and their mothers. *Epilepsy and Behavior.* 2004, 5(6):958-964
- 17) Weinshenker BG, Kantarci OH. Re: Games Issue (Comment). *J Neuroimmunol* 2004; 153(1-2):3-4.
- 18) Kantarci OH, Goris A, Hebrink DD, Heggarty S, Cunningham S, Alloza I, Atkinson EJ, de Andrade M, McMurray CT, Graham CA, Hawkins SA, Billiau A, Dubois B, Weinshenker BG, Vandebroecck K. *IFNG* polymorphisms are associated with gender differences in susceptibility to multiple sclerosis. *Genes and Immunity.* 2005, 6(2):153-161
- 19) Kantarci OH, Morales Y, Ziemer PA, Hebrink DD, Mahad DJ, Atkinson EJ, Achenbach SJ, de Andrade M, Ransohoff RM, Weinshenker BG and Lucchinetti CF. *CCR5Δ32* polymorphism is not associated with age of onset, disease course, disease severity and immunopathology in multiple sclerosis. *J Neuroimmunol.* 2005, 169(1-2):137-43.
- 20) Kantarci OH, Barcellos LF, Oksenberg JR, Atkinson EJ, Lincoln R, Achenbach SJ, de Andrade M, Hauser SL and Weinshenker BG. Men transmit MS more often to their children versus women: The Carter effect. *Neurology.* 2006, 25;67(2):305-10.
- 21) Hu WT, Kantarci OH, Merritt JL, McGrann P, Dyck PJB, Lucchinetti CF, Tippmann-Peikert M. Ornithine Transcarbamylase Deficiency Presenting as Encephalopathy During Adulthood Following Bariatric Surgery. *Arch Neurol.* 2007, 64(1):126-8.
- 22) Kantarci OH, Hebrink DD, Schafer-Klein J, Yulong S, Achenbach SJ, Atkinson EJ, Heggarty S, Cotleur AC, de Andrade M, McMurray CT, Vandebroecck K, Pelfrey C, Weinshenker BG.

- Interferon gamma polymorphisms: Sex-biased MS susceptibility and gene expression. Arch Neurol (JAMA Neurology). 2008 Mar;65(3):349-57.
- 23) O'Doherty C, Kantarci O and Vandenbroeck K. IL7RA polymorphisms and susceptibility to multiple sclerosis. N Engl J Med. 2008 Feb 14;358(7):753-4.
- 24*) Kantarci OH, Spurkland A. Parent-of-Origin of Multiple Sclerosis: understanding inheritance in complex neurological diseases. Neurology (**Editorial**) 2008;71 786-787.
- 25) Magana SM, Matiello M, Pittock SJ, McKeon A, Lennon VA, Rabinstein AA, Shuster E, Kantarci OH, Lucchinetti CF, Weinshenker BG. Posterior reversible encephalopathy syndrome in neuromyelitis optica spectrum disorders. Neurology 2009 Feb 24; 72(8):712-7.
- 26*) Siva A, SaipS, Altintas A, Jacob A, Keegan BM, Kantarci OH. Multiple sclerosis risk in radiologically uncovered asymptomatic possible inflammatory-demyelinating disease. Multiple Sclerosis 2009; 15(8):918-27.
- 27*) Hochberg FH, Rodriguez FJ, Atkinson JL, Shaw EG, Keegan BM, Kantarci OH. A 54-year-old woman with progressive gait disturbance and MRI abnormalities. Clinical Pathological Conference (CPC). Neurology 2009;73(6):466-74
- 28) Jacob A, Matiello M, Weinshenker BG, Wingerchuk DM, Lucchinetti C, Shuster E, Carter J, Keegan BM, Kantarci OH, Pittock SJ. Treatment of neuromyelitis optica with mycophenolate mofetil: retrospective analysis of 24 patients. Arch Neurol 2009 Sep; 66(9):1128-33.
- 29*) Matiello M, Schaefer-Klein J, Brum DG, Atkinson EJ, Kantarci OH, Weinshenker BG, and the NMO genetics collaborators. HLA DRB1*1501 tagging rs3135388 polymorphism is not associated with neuromyelitis optica. Multiple Sclerosis 2010 Aug;16(8):981-4.
- 30*) Tutuncu M, Demirci ON, Ozer F, Saip S, Kantarci OH, Siva A. A patient with established primary progressive multiple sclerosis transitions to "secondary" relapsing-remitting disease course following a fulminant demyelinating episode. Mult Scler. 2010 Dec 6. [Epub ahead of print]
- 31*) Matiello M, Weinshenker BG, Atkinson EJ, Schaefer-Klein J, Kantarci OH. Association of IL2RA polymorphisms with susceptibility to multiple sclerosis is not explained by missense mutations in IL2RA. Mult Scler. 2011 May;17(5):634-6. Epub 2011 Jan 14.
- 32) Kumar N, Keegan BM, Rodriguez FJ, Hammack JE, Kantarci OH. Intravascular Lymphoma Presenting as a longitudinally-extensive Myelitis: Diagnostic Challenges and Etiologic Clues. J Neurol Sci 2011 Apr 15; 303(1-2):146-149
- 33*) Kantarci OH. Sex-stratified Inheritance of MS: New Horizons from Studies in MHC Region. (**Editorial**) Neurology 2011 Jan 18;76(3):210-2. Epub 2011 Jan 5.
- 34*) Smith JH, Dhamija R, Moseley BD, Sandroni P, Lucchinetti CF, Lennon VA, Kantarci OH. NMDA Receptor Autoimmune Encephalitis Presenting with Opsoclonus-Myoclonus: Treatment Response to Plasmapheresis. Arch Neurol (JAMA Neurology). 2011 Aug ;68(8):1069-72.

- 35) Lebrun C, Le Page E, Kantarci O, Siva A, Pelletier D, Okuda D. Impact of pregnancy on conversion to clinically isolated syndrome in a radiologically isolated syndrome cohort. Mult Scler. 2012 Sept;18(9): 1297-1302
- 36*) Schiff D, Lam EM, Parisi JE, Giannini C, Uhm JH, Keegan BM, Kantarci OH. A 21-year-old woman with multiple cancers and a new brain lesion. Neurology. 2012 Mar 6;78(10):743-9.
- 37*) Tutuncu M, Tang J, Abou Zeid N, Kale N, Crusan DJ, Atkinson EJ, Siva A, Pittock SJ, Pirko I, Keegan BM, Lucchinetti CF, Noseworthy JH, Rodriguez M, Weinshenker BG, and Kantarci OH. Onset of Progressive Phase is an Age Dependent Clinical Milestone in Multiple Sclerosis. Mult Scler. 2013 Feb ;19(2):188-98. [Epub ahead of print]
- 38*) Child ND, Braksick SA, Flanagan EP, Keegan BM, Giannini C, Kantarci OH. Amyloid-beta-related angiitis presenting as a uveomeningeal syndrome. Neurology, 2013 Nov 12; 81(20): 1796-1798
- 39*) Flanagan EP, Rabinstein AA, Kumar N, Schroeder K, Kantarci OH. Fulminant cerebellitis with radiological recurrence in an adult patient with Crohn's disease. J Neurol Sci. 2014 Jan 15; 336 (1-2):247-250
- 40) Okuda DT, Siva A, Kantarci O, Inglese M, Katz I, Tutuncu M, Keegan BM, Donlon S, Hua LeH, Vidal-Jordana A, Montalban X, Rovira A, Tintore M, Amato MP, Brochet B, de Seze J, Brassat D, Vermersch P, De Stefano N, Sormani MP, Pelletier D, Lebrun ., on behalf of the Radiologically Isolated Syndrome Consortium (RISC) and Club Francophone de la Sclérose en Plaques (CFSEP). Radiologically Isolated Syndrome: 5-Year Risk for an Initial Clinical Event. PLOSone. 2014 Mar 5; 9 (3): e90509
- 41*) Braksick SA, Cutsforth-Gregory JK, Black DF, Weinshenker BG, Pittock SJ, Kantarci OH. Teaching NeuroImages: MRI in advanced neuromyelitis optica. Neurology. 2014 Mar 25; 82(12): E101-E102
- 42*) De Felice KM, Novotna M, Enders FT, Faubion WA, Tremaine WJ, Kantarci OH and Raffals LE. Idiopathic inflammatory demyelinating disease of the central nervous system in patients with inflammatory bowel disease: retrospective analysis of 9095 patients. Alimentary Pharmacology & Therapeutics, 2014 Oct 27 (Article first published online;| DOI: 10.1111/apt.12997)
- 44*) Paz Soldán MM, Novotna M, Abou Zeid N, Kale N, Tutuncu M, Crusan DJ, Atkinson EJ, Siva A, Keegan BM, Pirko I, Pittock SJ, Lucchinetti CF, Weinshenker BG, Rodriguez M, Kantarci OH. Relapses and disability accumulation in progressive multiple sclerosis patients. Neurology. 2014 Nov 14. pii: 10.1212/WNL.0000000000001094. [Epub ahead of print]
- 45*) O'Gorman C M, Bower JH, Matsumoto J Y, Kantarci OH, and Kumar N. When Drinking Makes the Tremor Worse: A Task-Specific Orolingual Tremor. Movmnt Disords Clinl Practice, 2014;1: 237–239. doi: 10.1002/mdc3.12041
- 46) Schwab DJ, Haider C R, Felton CL, Daniel ES1, Kantarci OH, Gilbert BK. A Measurement-Quality Body-Worn Physiological Monitor for Use in Harsh Environments. Am J of Biomedical Engineering 2014, 4(4): 88-100

- 47) Azevedo CJ, Overton E, Khadka S, Buckley J, Liu S, Sampat M, Kantarci O, Lebrun Frenay C, Siva A, Okuda DT, Pelletier D. Early CNS neurodegeneration in radiologically isolated syndrome. *Neurol Neuroimmunol Neuroinflamm*. 2015 Apr 9;2(3):e102.
- 48*) Siva A, Kantarci O. Symptomatic therapy in multiple sclerosis: Big pharma should do more-YES. *Mult Scler*. 2015 Jul;21(8):980-2. doi: 10.1177/1352458515588974. No abstract available.
- 49*) Novotna M, Paz Soldán MM, Abou Zeid N, Kale N, Tutuncu M, Crusan DJ, Atkinson EJ, Siva A, Keegan BM, Pirko I, Pittock SJ, Lucchinetti CF, Noseworthy JH, Weinshenker BG, Rodriguez M, Kantarci OH. Poor early relapse recovery affects onset of progressive disease course in multiple sclerosis. *Neurology*. 2015 Aug 25;85(8):722-9. doi: 0.1212/WNL.0000000000001856. Erratum in: *Neurology*. 2015 Oct 13;85(15):1355.
- 50) Gilbert BK, Vickberg ME, Schwab DJ, Haider CR, Kantarci OH, Croghan IT, Sainati RA. System Architecture and Implementation of a Wireless-Based Home Health Care Monitoring System Intended for Use in a Medical Center Environment. *American Journal of Biomedical Engineering* 2015, 5(4): 116-129 DOI: 10.5923/j.ajbe.20150504.02
- 51) Kantarci OH, Lebrun C, Siva A, Keegan MB, Azevedo CJ, Inglese M, Tintoré M, Newton BD, Durand-Dubief F, Amato MP, De Stefano N, Sormani MP, Pelletier D, Okuda DT. Primary Progressive Multiple Sclerosis Evolving From Radiologically Isolated Syndrome. *Ann Neurol*. 2016 Feb;79(2):288-94. doi: 10.1002/ana.24564.
- 52) Waxman SG, Kantarci O. The cerebellar channelopathy of multiple sclerosis. **(Editorial)** *Neurology*. 2016 Feb 2;86(5):406-7. doi: 10.1212/WNL.0000000000002338. No abstract available.
- 53*) Uygunoglu U, Kantarci O, Siva A. Integrated multidisciplinary clinics should be the gold standard in managing progressive MS - YES. *Mult Scler*. 2016 Aug;22(9):1126-8. doi: 10.1177/1352458516650526. No abstract available.
- 54) Chen J, Chia N, Kalari KR, Yao JZ, Novotna M, Soldan MM, Luckey DH, Marietta EV, Jeraldo PR, Chen X, Weinshenker BG, Rodriguez M, Kantarci OH, Nelson H, Murray JA, Mangalam AK. Multiple sclerosis patients have a distinct gut microbiota compared to healthy controls. *Sci Rep*. 2016 Jun 27;6:28484. doi: 10.1038/srep28484.
- 55*) Zeydan B, Uygunoglu U, Saip S, Demirci ON, Seyahi E, Ugurlu S, Hamuryudan V, Siva A, Kantarci OH. Infliximab is a plausible alternative for neurologic complications of Behçet disease. *Neurol Neuroimmunol Neuroinflamm*. 2016 Jul 8;3(5):e258. doi: 0.1212/NXI.0000000000000258
- 56) Lebrun C, Cohen M, Pignolet B, Seitz-Polski B, Bucciarelli F, Benzaken S, Kantarci O, Siva A, Okuda D, Pelletier D, Brassat D; on behalf SFSEP, BIONAT Network.; RISC. Interleukin 17 alone is not a discriminant biomarker in early demyelinating spectrum disorders. *J Neurol Sci*. 2016 Sep 15;368:334-6. doi: 10.1016/j.jns.2016.07.052
- 57*) Kantarci OH. A new dawn for genetic association studies in multiple sclerosis. **(Editorial)** *Neurol Genet*. 2016 Aug 4;2(4):e93. doi: 10.1212/NXG.0000000000000093

58) Solomon AJ, Bourdette DN, Cross AH, Applebee A, Skidd PM, Howard DB, Spain RI, Cameron MH, Kim E, Mass MK, Yadav V, Whitham RH, Longbrake EE, Naismith RT, Wu GF, Parks BJ, Wingerchuk DM, Rabin BL, Toledano M, Tobin WO, Kantarci OH, Carter JL, Keegan BM, Weinshenker BG. The contemporary spectrum of multiple sclerosis misdiagnosis: A multicenter study. *Neurology*. 2016 Sep 27;87(13):1393-9. doi: 10.1212/WNL.0000000000003152

59*) Pichler M, Klaas J, Temesgen Z, Kantarci O. Clinical Reasoning: A 73-year-old man with sarcoidosis and multifocal ischemic strokes. *Neurology*. 2016 Sep 20;87(12):e119-23. doi: 10.1212/WNL.0000000000003128. No abstract available.

60) Keegan BM, Kaufmann TJ, Weinshenker BG, Kantarci OH, Schmalstieg WF, Paz Soldan MM, Flanagan EP. Progressive solitary sclerosis: Gradual motor impairment from a single CNS demyelinating lesion. *Neurology*. 2016 Oct 18;87(16):1713-1719.

61*) Zeydan B, Lowe VJ, Schwarz CG, Przybelski SA, Tosakulwong N, Zuk SM, Senjem ML, Gunter JL, Roberts RO, Mielke MM, Benarroch EE, Rodriguez M, Machulda MM, Lesnick TG, Knopman DS, Petersen RC, Jack CR Jr, Kantarci K, Kantarci OH. Pittsburgh compound-B PET white matter imaging and cognitive function in late multiple sclerosis. *Mult Scler*. 2017 May 1:1352458517707346 doi: 10.1177/1352458517707346. [Epub ahead of print] PMID: 28474977

62*) Zeydan B, Deelchand DK, Tosakulwong N, Lesnick TG, Kantarci OH, Machulda MM, Knopman DS, Lowe VJ, Jack CR Jr, Petersen RC, Öz G, Kantarci K. Decreased Glutamate Levels in Patients with Amnesic Mild Cognitive Impairment: An sLASER Proton MR Spectroscopy and PiB-PET Study. *J Neuroimaging*. 2017 Jun 29. doi: 10.1111/jon.12454. [Epub ahead of print]

63*) Uygunoglu U, Zeydan B, Ozguler Y, Ugurlu S, Seyahi E, Kocer N, Islak C, Kantarci K, Saip S, Siva A, Kantarci OH. Myelopathy in Behcet's Disease: The Bagel Sign. *Ann Neurol*. 2017 Jul 27. doi: 10.1002/ana.25004. [Epub ahead of print]

Reviews:

- 1) Altintas A, Kantarci O, Siva A. The role of cytokines in MS. *Turkish Journal of Neurology (in Turkish)*. 1995, 4:167-171
- 2) Altintas A, Kantarci O, Siva A. Treatment strategies in Autoimmune Neurological disorders. *Turkish Journal of Neurology (in Turkish)* 1997, 10:124-156
- 3) Kantarci O, Siva A. An approach to dizziness from a neurological point of view. *Journal of Family Medicine (in Turkish)* 1997;1(1):11-15
- 4) Kantarci OH, de Andrade M, Weinshenker BG. Identifying disease modifying genes in multiple sclerosis. *J Neuroimmunol* 2002; 123: 144-159
- 5) Kantarci OH, Weinshenker BG. Natural History of MS. *Neurol Clin* 2005; 23:17-38
- 6) Kantarci OH, Wingerchuk D. Epidemiology and Natural History of Multiple Sclerosis: New Insights. *Curr Opin Neurol*. 2006 Jun;19(3):248-54.

- 7) Kantarci OH. Genetics and Natural History of Multiple Sclerosis. *Semin Neurol*. 2008 Feb;28(1):7-16. Review
- 8) Kantarci OH. Treatment of Primary Progressive Multiple Sclerosis. *Semin Neurol*. 2013 Feb;33(1):74-8. Epub 2013 May 25. PMID:23709215
- 9*) Rahmlow MR, Kantarci OH. Fulminant demyelinating diseases. *Neurohospitalist*. 2013 Apr;3(2):81-91
- 10) Kantarci OH, Pirko I, Rodriguez M. Novel immunomodulatory approaches for the management of multiple sclerosis *Clin Pharmacol Ther (Nature Group)*. 2014 Jan;95(1):32-44.
- 11) Wootla B, Watzlawik JO, Warrington AE, Wittenberg NJ, Denic A, Xu X, Jordan LR, Papke LM, Zoecklein LJ, Pierce ML, Oh SH, Kantarci OH, Rodriguez M Naturally Occurring Monoclonal Antibodies and Their Therapeutic Potential for Neurologic Diseases. *JAMA Neurol*. 2015 Nov;72(11):1346-53. doi: 10.1001/jamaneurol.2015.2188. Review
- 12*) Novotna M, Rodriguez M, Kantarci OH. Promising directions in Relapse-Impact prevention in Multiple Sclerosis (**Cover focus**). *Practical Neurology* 2015 Oct. 23-31
- 13*) Zeydan B, Rodriguez M, Kantarci OH. Timing of future remyelination therapies and their potential to stop MS progression. *Adv Exp Med Biol*. 2017;958:161-170.

Book chapters:

- 1) Siva A, Kantarci O. An introduction to the clinical spectrum of inflammatory demyelinating disorders of the central nervous system. In Siva A, Kesselring J, Thompson A (eds): *Frontiers in Multiple Sclerosis, Volume II*. Martin Dunitz Limited, London 1999
- 2) Kantarci OH, Weinshenker BG. Prognostic Factors in Multiple Sclerosis. In Cook D. Stuart (ed): *Handbook of Multiple Sclerosis, third edition*. Marcel & Dekker Limited, New York 2001, pp.449-463
- 3) Kantarci OH, Weinshenker BG. Fattori prognostici nella sclerosi multipla. In Durelli Luca (ed): *La Terapia della Sclerosi Multipla. Nell'Esperanza Quotidiana Del Neurologo (Dalla prognosi alla terapia)*, first edition. Mosby Italia Srl, Milanese, pp.3-14 (in Italian)
- 4) Kantarci OH, Siva A. Behcet's Disease: Diagnosis and Management. In Noseworthy JH (ed) *Neurological Therapeutics: Principles and Practice, first edition*. Dunitz-Taylor Francis, London 2003, pp.1084-1093
- 5) Kantarci OH, Siva A. Behcet's Disease: Diagnosis and Management. In Noseworthy JH (ed) *Neurological Therapeutics: Principles and Practice, second edition*. Informa Healthcare, London 2006, pp 1196-1206
- 6) Kantarci OH, Weinshenker BG. Multiple Sclerosis. In Vandenberg (ed) *Cytokine Gene Polymorphisms in Multifactorial Disorders*, first edition. CRC Press, Taylor & Francis group, Boca Raton 2006, pp 289-304

- 7) Kantarci OH, Ghearing G. Basic Principles of Neuroscience. In Mowzoon N and Flemming KD (ed) Neurology board review: an illustrated study guide. Mayo Press & Francis Taylor, 2007
- 8) Kantarci OH. Inflammatory and demyelinating disorders of the central nervous system. In Mowzoon N and Flemming KD (ed) Neurology board review: an illustrated study guide. Mayo Press & Francis Taylor, 2007.
- 9) Kantarci OH. Treatment of multiple sclerosis. In Flemming KD and Jones LK(ed) Mayo Clinic Neurology Board Review. Clinical Neurology for initial certification and MOC. Mayo Clinic Scientific Press 2015

Books:

- 1) Rodriguez M, Kantarci OH, Pirko I. Multiple Sclerosis (Contemporary Neurology). Oxford Press. Publication Date: June 14, 2013 | ISBN-10: 0199740461 | ISBN-13: 978-0199740468 | Edition: 1