The Neurology Center of Southern California 6010 Hidden Valley Road, Suite 200, Carlsbad, CA 92011

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Irene Jennifer Oh, M.D.



EDUCATION

Rice University, Houston, TX ■ 08/1995 - 05/1999 Bachelor of Arts Biochemistry

University of Texas Southwestern Medical Center of Dallas, Dallas, TX ■ 07/1999 - 05/2003 Medical Doctorate

University of Texas Health Science Center at San Antonio, San Antonio, TX ■ 07/2003 - 06/2004 Internship, Internal Medicine

University of Texas Health Science Center at Houston, Houston, TX ■ 07/2004 - 06/2007 Residency, Neurology

University of Texas Health Science Center at Houston, Houston, TX ■ 07/2007 - 06/2009 Fellowship, Movement Disorders

ADDITIONAL TRAINING

Summer Medical and Research Training Program ■ June/July 1998

Baylor College of Medicine, Houston, TX

Department of Neuroscience

Postnatal Development of Type I and Type II Vestibular Hair Cells

Performed RT-PCR and Southern blots

Primary Investigator: Ruth Eatock, Ph. D.

Family Practice Summer Preceptorship ■ 05/2000

Beaumont, TX 77001

LICENSURE AND CERTIFICATION

California Medical License – A106450

Texas Medical License – M9550

HONORS AND AWARDS

National Merit Scholarship ■ 1995-1999

Robert C. Byrd Honors Scholarship ■ 1995-1999

Phi Lambda Upsilon National Honorary Chemical Society ■ 1999

Southwestern Medical Foundation Merit Scholarship ■ 1999-2003

PROFESSIONAL ORGANIZATIONS AND COMMITTEES

American Academy of Neurology ■ 2004- Present

Texas Neurological Society ■ 2007- Inactive

Harris County Neurological Society ■ 2007-Inactive

Movement Disorders Society ■ 2008- Present

American Medical Association ■ 1999-2003

STAFF APPOINTMENT

Staff Neurologist / Sub-Investigator, North County Neurology Associates / The Research Center of Southern California, LLC, Carlsbad, California ■ 2016 - Present

Staff Neurologist, The Research Center of Southern California, LLC, Oceanside & Encinitas, California ■ 09/2009 - 2016

Staff Neurologist, Private Group Practice, North County Neurology Associates, Carlsbad, CA ■ 2016 - Present

Staff Neurologist, Private Group Practice, North County Neurology Associates La Jolla, Oceanside, & Encinitas, CA offices ■ 09/2009- 2016

HOSPITAL AFFILIATIONS

Tri-City Medical Center, Oceanside, California ■ 08/2009 - Present

Scripps Memorial Hospital, Encinitas, California ■ 09/2009 - Present

Scripps Mercy Hospital, Chula Vista & San Diego, California ■ 08/2022 - Present

Palomar Medical Center, Escondido, California ■ 08/2009 - Present

Palomar Medical Center, Poway, California ■ 08/2009 - Present

SERVICE TO THE COMMUNITY

Best Buddies, center for the Retarded, Houston, TX

Treasurer (1996-1998) **■** 1995-1999

Rice Student Volunteer Program

Health Committee Co-Chairman (1996-1997) ■ 1995-1999

Hospice at the Texas Medical Center

Patient Care Center Volunteer ■ 1997

PUBLICATIONS

Schiess M, **Oh I.** Serum uric acid and clinical progression in Parkinson disease: Potential biomarker for nigrostriatal failure. *Arch Neurol* 2008; 65 (6): 698-699.

Hallevi H, **Oh I**, Valdez S, Kidder B, Schiess M. Postencephalitic hemiparkinsonism: Clinical imaging correlation. *Arch Neurol* 2008; 65 (6):837

Stimming E, **Oh I**, Van Horn G, Simpson R, Schiess M. Sensitivity and specificity of levodopa response in predicting deep brain stimulation outcomes in Parkinson disease. Poster presentation at 12th International Congress of Parkinson's Disease and Movement Disorders, June 2008; Chicago, IL.

Schiess M, Stimming E, Kaur B, **Oh I**, Pondexter B, Kott M, Bick D, Doursout M-F, Bick R. Cytokine effects on Parkinson associated proteins, α-synuclein, tau and ubiquitin in cultured glial cells: Localization and density by deconvolution flouresence microscopy. Poster presentation at the American Academy of Neurology 59th Annual Meeting, April 2007; Boston, MA.

TRIAL AND GRANTS

Medtronic, Inc. Fellowship educational grant: Intrathecal baclofen therapy. 2007-2008

Teva Pharmaceuticals. A randomized, double-blind, active (pramipexole 0.5 mg tid) and placebo controlled, efficacy study of pramipexole, given 0.5 mg and 0.75 mg bid over a 12-week treatment phase in early Parkinson's disease patients (PramiBID).

RESEARCH ACTIVITIES

ELN115727-301 & 302 "A Phase III, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Efficacy and Safety Trail of Bapineuzumab (AAB-001,ELN115727 in Patients with Mild to Moderate Alzheimer's Disease who are Apolipoprotein E ε4 Non- Carriers (301) or Carriers (302)",-2008

ELN115727-351 "A Phase 3 Extension, Multicenter, Double-Blind, Long Term Safety and Tolerability Treatment Trial of Bapineuzumab (AAB-001, ELN115727) in Subjects with Alzheimer's Disease Who Participated in Study ELN115727-301 or in Study ELN115727-302" – 2009

BTX0805" Safety and Efficacy of Botulinum Neurotoxin Type A in the Treatment of Forward Head Posture with Associated Chronic Tension Type Headache using a Novel Fixed Sit Injection Paradigm" – 2009.

RESEARCH ACTIVITIES CONT'D

29652 "A 12 week, Phase IIIb, Open-Label, Single-Arm, Multicenter Trial to Evaluate Ease of use of an Electronic Autoinjector (RebiSmartTM) for Self-Injection in Subjects with Relapsing Multiple Sclerosis (RMS) treated with Rebif® 44mcg Subcutaneously three times a week." – 2009

DRI10566 "A 14-Week, Randomized, Double-Blind, Placebo-Controlled, Parallel Group Study to Evaluate the Efficacy, Safety, and Tolerablility of Nerispirdine 50mg, 100mg, and 200mg in Patients with Multiple Sclerosis" -2009

A 24-month double-blind, randomized, multicenter, placebo-controlled, parallel-group study comparing the efficacy and safety of 0.5 mg and 1.25 mg fingolimod (FTY720) administered orally once daily versus placebo in patients with relapsing-remitting multiple sclerosis with optional extension phase ProtocolNo: CFTY720D2309 Extension to CFTY720D2309 (A 24-month double-blind, randomized, multicenter, placebo-controlled, parallel-group study comparing the efficacy and safety of 0.5mg and 1.25mg fingolimod (FTY720) administered orally once daily versus placebo in patients with relapsing-remitting multiple sclerosis"- 2009

CFTY720D2302 "A 12-month double-blind, randomized, multicenter, active-controlled, parallel-group study comparing the efficacy and safety of 0.5 mg and 1.25 mg fingolimod (FTY720) administered orally once daily versus interferon β -1a (Avonex®) administered i.m. once weekly in patients with relapsing-remitting multiple sclerosis with optional Extension Phase" - 2009

S187.3.002 "A Randomized, Double-Blind, Double-Dummy, Efficacy, Safety and Tolerability Study of Levodopa-Carbidopa Intestinal Gel in Levodopa-Responsive Parkinson's Subjects Receiving Optimized Treatments with Parkinson Medicinal Products, who Continue to Experience Persistent Motor Fluctuations" – 2010.

S187.3.003 "Open-Label, 12-Month Safety and Efficacy Study of Levodopa – Carbidopa Intestinal Gel in Levodopa-Responsive Parkinson's Disease Subjects." – 2010.

S187.3.004 "An Open-Label, 12 Month Safety and Efficacy Study of Levodopa-Carbidopa Intestinal Gel in Levodopa-Responsive Subjects with Advanced Parkinson's Disease and Severe Motor-Fluctuations Despite Optimized Treatment with Available Parkinson's Disease Medications" – 2010

S187.3.005 "Open-Label Continuation Treatment Study With Levodopa – Carbidopa Intestinal Gel In Subjects With Advanced Parkinson's Disease And Severe Motor-Fluctuation Who Have Exhibited A Persistent And Positive Effect To Treatment in Previous Studies." – 2010.

101MS325 "A Multicenter, Randomized, Rater-Blind, Parallel-Group, Active Controlled Study to Evaluate the Benefits of Switching Therapy (Glatiramer Acetate or Interferon β 1a) to Natalizumab in Subjects with Relapsing Remitting Multiple Sclerosis" -2010

Droxidopa NOH306 "A Multicenter, Double-Blind, Randomized, Parallel-Group, Placebo-Controlled Study to Assess the Clinical Effect of Droxidopa in the Treatment of Symptomatic Neurogenic Orthostatic Hypotension in Patients with Parkinson's Disease" – 2010

CFTY720DUS01 "A 6-month, Randomized, Active Comparator, Open-label, Multi- Center Study to Evaluate Patient OutComes, Safety and Tolerability of Fingolimod 0.5 mg/day in Patients with Relapsing Forms of Multiple Sclerosis who are candidates for MS therapy change from Previous Disease Modifying Therapy (EPOC) "– 2010

NTS-INT08-009 " A double-blind, randomized, sham-controlled, parallel group, multicenter, pivotal study to assess the safety and efficacy of transcranial laser therapy with the

NeuroThera® Laser System for the treatment of acute ischemic stroke within 24 hours of stroke onset." – 2010.

01373 "A double blind, randomized, placebo-controlled, parallel group, multicenter Phase 3 pivotal study to assess the safety and efficacy of 1mg/kg/day intravenous DP-b99 over 4 consecutive days versus placebo when initiated within nine hours of acute ischemic stroke onset." – 2010.

AAB-001-SC-ALZ-2003 "A Phase 2, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Multi-Center, Biomarker, Safety, and Pharmacokinetic Study of Bapineuzumab (AAB-001) Administered Subcutaneously at Monthly Intervals in Subjects with Mild to Moderate Alzheimer's Disease" – 2010

Open-Label Continuation Treatment Study with Levodopa —Carbidopa Intestinal Gel in Subjects With Advanced Parkinson's Disease And Severe Motor-Fluctuations Who Have Exhibited A Persistent and Positive Effect to Treatment in Previous Studies Protocol Number: \$187.3.005" - 2010

EFC6058 "A multi-center double-blind parallel-group placebo-controlled study of the efficacy and safety of teriflunomide in patients with relapsing multiple sclerosis who are treated with interferon-beta" -2010

0462-082-00 "A Worldwide, Randomized, Double Blind, Placebo-Controlled, Parallel Group Clinical Trial to Evaluate the Safety and Efficacy of Rizatriptan for the Acute Treatment of Migraine in Children and Adolescents "- 2010

HSC-MS-12-0210 "Pilot Clinical trial of ACTHarGel 14 days subcutaneous (SQ) versus ACTHarGel five days SQ for the treatment of MS exacerbations" - 2012

The COMPEL study "An open-label, multicenter study of the long-term efficacy, safety and tolerability of BOTOX® (onabotulinumtoxinA) for the prophylaxis of headaches in adult patients with chronic migraine" - 2012

Protocol No "FTY720D2399 Novartis Pharmaceuticals trial entitled: A single arm, open-label, multicenter study evaluating the long-term safety, tolerability and efficacy of 0.5 mg fingolimod (FTY720) administered orally once daily in patients with multiple sclerosis." - 2012

FTY720D2312 "A 12-month, randomized, rater-and dose-blinded study to compare the efficacy and safety of fingolimod 0.25mg and 0.5mg administered orally once daily with glatiramer acetate 20mg administered subcutaneously once daily in patients with relapsing-remitting multiple sclerosis." - 2012

"A 12-month, Prospective, Randomized, active-controlled, open-label study to Evaluate the patient retention of Fingolimod vs. approved first-line disease modifying therapies in adults who are in Early stages of treatment for Relapsing remitting multiple sclerosis (PREFER)." – 2012

M12-920 "An Open-Label, Two Part, Multicenter Study to Assess the Safety and Efficacy of Levodopa Carbidopa Intestinal Gel (LCIG) for the Treatment of Non-Motor Symptoms in Subjects with Advanced Parkinson's Disease." - 2012

Protocol LPS13567 "A Prospective, Single-Arm, Clinical-Setting Study to Describe Efficacy, Tolerability and Convenience of Teriflunomide Treatment Using Patient Reported Outcomes (PROs) in Relapsing Multiple Sclerosis (RMS) Patients." -2013

Protocol No "CBAF312A2304 Novartis Pharmaceuticals trial entitled: "A multicenter, randomized, double-blind, parallel-group, placebo-controlled variable treatment duration study evaluating the efficacy and safety of Siponimod (BAF312) in patients with secondary progressive multiple sclerosis." - 2013

RESEARCH ACTIVITIES CONT'D

Alexion ECU-NMO-301: A Randomized, Double Blind, Placebo-Controlled, Multi-Center Trial to Evaluate the Safety and Efficacy of Eculizumab in Patients with Relapsing Neuromyelitis Optica (NMO). Sub-Investigator, 2014-2018

Alexion ECU-NMO-302: "A Phase III, Open-Label, Extension Trial of ECU-NMO-301 to Evaluate the Safety and Efficacy of Eculizumab in Patients with Relapsing Neuromyelitis Optica (NMO). Sub-Investigator, 2014-ongoing

CFTY720D2403 Novartis Passage Long-term, prospective, multinational, parallel-cohort study monitoring safety in patients with MS newly started on fingolimod once daily or treated with another approved disease-modifying therapy. Sub-Investigator, 2015-ongoing

Actelion AC-058B301 "Multicenter, randomized, double-blind, double-dummy, parallel-group, active-controlled, superiority study to compare the efficacy and safety of ponesimod to teriflunomide (Aubagio) in subjects with relapsing multiple sclerosis." Sub-Investigator, 2015-ongoing

CHORDS, MN30035 An Open-Label Study To Evaluate The Effectiveness And Safety Of Ocrelizumab in Patients with Relapsing Remitting multiple Sclerosis Who Have Had A Suboptimal Response To An Adequate Course Of Disease-Modifying Treatment. Sub-Investigator, 2016-ongoing

Actelion AC-058B303 Multicenter, non-comparative extension to study AC-058B301, to investigate the long-term safety, tolerability, and control of disease of ponesimod 20mg in subjects with relapsing multiple sclerosis. Sub-Investigator, 2017-ongoing

TG1101-RMS301 Phase III: UbLiTuximab in Multiple Sclerosis Treatment Effects (ULTIMATE I Study). Sub-Investigator, 2017-ongoing