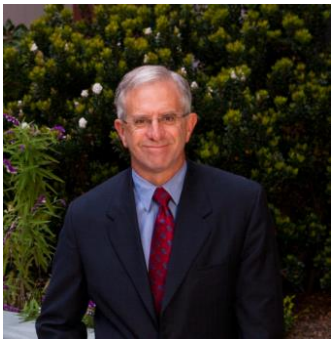
The Neurology Center of Southern California
6010 Hidden Valley Road, Suite 200, Carlsbad, California 92011
9850 Genesee Ave, Suite 470, La Jolla, CA, 92037
1955 Citracado Pkwy, Suite 102, Escondido, CA 92029
15721 Pomerado Road, Poway, CA 92064

Phone: 760-631-3000
Fax: 760-631-3016



Michael Allan Lobatz, M.D.

EDUCATION

University of Illinois, Biomedical Engineering, Chicago, IL ■ 1966 - 1970
B.S., Biomedical Engineering

University of Illinois, Neuropharmacology Program, Chicago, IL ■ 1970 - 1974

University of Illinois, Chicago, IL ■ 1974 - 1977
M.D., James Scholar

University of California, San Diego, CA ■ 1977 - 1978
Internship, Internal Medicine

University of California, San Diego, CA ■ 1978 - 1981
Resident, Neurology

University of California, San Diego, CA ■ 1981
Chief Resident, Neurology

LICENSURE

- **California Medical License Number -** G38353

CERTIFICATIONS

- National Board of Medical Examiners ■ 1978
- American Board of Psychiatry and Neurology ■ 1983
- American Society of Neuroimaging, MRI ■ 1987
- Qualified Medical Examiner, Industrial Medical Council ■ 1994-1998

ACADEMIC APPOINTMENTS

Retired Assistant Clinical Professor, Department of Neurology
University of California, San Diego, CA ■ 1981 - Present

Retired, Department of Neurology
VA Medical Center, La Jolla, CA ■ 1981 – 2007

Faculty, Internal Medicine Residency Program
Scripps Green Hospital ■ 2007- Present

PROFESSIONAL ACTIVITIES

- **Neurologist**, Private Group Practice, North County Neurology Associates dba The Neurology Center, Encinitas, and Oceanside offices, CA ■ 1981 – Present
- **Neurologist, Research Center,** The Research Center of Southern California, LLC. Encinitas & Oceanside, CA ■ 2007- Present
- **Chief of Staff,** Scripps Memorial Hospital, Encinitas ■ 2007- 2009
- **Vice President of Medical Affairs,** Scripps Health ■ 2009- Present
- **Staff Neurologist**: Critical Care Neurology, Emergency Care, Neurology, Clinical Consultation, Electrodiagnostic Studies, Rehabilitation Neurology
- Scripps Memorial Hospital, Encinitas ■ 1993 – Present
- Scripps Memorial Hospital, La Jolla ■ 1997 – Present
- Scripps Mercy Hospital ■ 2003 – Present
- Tri-City Medical Center, Oceanside ■ 1981 – Present
- **Medical Director,** Rehabilitation Center, Scripps Memorial Hospital Encinitas, Scripps Memorial, Hospital La Jolla ■ 1998 – Present
- **Medical Director,** Brain Injury Program, Scripps Memorial Hospital Encinitas ■ 1998 – Present
- **Co-Director,** Neurosciences, Scripps Memorial Hospital Encinitas ■ 2007 – Present
- **Lecturer, American Academy of Neurology,** Electronic Health Records for Neurologists, Annual Meeting ■ 2004-2008
- **Consultant,** Maximus Center for Health Dispute Resolution ■ 2004 – 2007
- **Secretary of the Medical Staff,** Scripps Memorial Hospital Encinitas ■ 2005 – 2007
- **Chairman**, Neurology Division, Scripps Memorial Hospital Encinitas ■ 1993 – 1997
- **Chairman**, Neurology and Rehabilitation Division, Scripps Memorial Hospital Encinitas ■ 1997 – 1998
- **Member,** Intensive Care Committee, Tri-City Medical Center ■ 1985 – 1986
- **Member,** Rehabilitation Committee, Tri-City Medical Center ■ 1986 – 1987
- **Member,** Biomedical Ethics Committee, Tri-City Medical Center ■ 1988 – 1990
- **Director** of Rehabilitation, Village Square Nursing Center ■ 1991 – 1996
- **Member,** Quality Assurance, Medical Records and Utilization Review Committee, Scripps Memorial Hospital Encinitas ■ 1993 – 1995
- **Member,** Medical Supervisory Committee, Scripps Memorial Hospital Encinitas ■ 1994 – 1998
- **Member,** Neurology Division, Scripps Memorial Hospital La Jolla ■ 1993 – Present
- **Member,** Medical Records Committee, Tri-City Medical Center ■ 1998 – 2000
- **Participant,** National Health Care Policy Council ■ 1993

- **Lectures** extensively on a variety of neurologic topics including the diagnosis and treatment of Brain Injury, Parkinson's disease, Alzheimer's disease, and Neurorehabilitation.

HOSPITAL AFFILIATIONS

- **Scripps Memorial Hospital**, Encinitas, Active Staff Privileges ■ 1981 – Present
- **Scripps Memorial Hospital**, La Jolla, Consultant Privileges ■ 1981 – Present
- **Scripps Mercy Hospital,** San Diego, Consultant Privileges ■ 2003 – Present
- **Tri-City Medical Center**, Oceanside, Active Staff Privileges ■ 1981 - Present

PROFESSIONAL SOCIETIES

- American Academy of Neurology ■ 1978 – Present
- American Academy of Neurology liaison to the Physician Association Joint Liaison Committee on Electronic Health Records ■ 2003-2005
- San Diego County Neurology Society ■ 1981 – Present
- San Diego County Medical Society
- California Medical Association
- Member, Practice Committee, American Academy of Neurology ■ 2001 – 2005
- International Brain Injury Association ■ 2007- Present

ASSOCIATED RESEARCH EXPERIENCES

Collaborating Clinical Centre, North County Neurology Associates, Oceanside: T Chippendale, **M Lobatz**, E Diamond, J Schim, M Sadoff. "A randomized, blinded, trial of clopidogrel versus aspirin in patients at risk of ischemic events (CAPRIE)", CAPRIE Steering Committee. Published in **The Lancet Vol. 348 No 9038, 1329-1339, November 16, 1996.**

Participating Clinical Center: Tri-City Medical Center, T. Chippendale, E. Diamond, **M. Lobatz**, D. Murphy, D. Rosenberg, T. Ruel, M. Sadoff, J. Schim, J. Schleimer. "Tissue Plasminogen Activator for Acute Ischemic Stroke," The ***New England Journal of Medicine*****, Vol. 333 No 24, 1581-1587, December 14, 1995.**

D. Sherman, R. Atkinson, T. Chippendale, et al. "Intravenous Ancrod for Treatment of Acute Ischemic Stroke, The STAT Study: A Randomized Controlled Trial," ***JAMA,*** **2000; 283:2395-2403, May 10, 2000.**

Research in biomedical engineering, University of Illinois, College of Engineering, 1970-1971

Research in Neuropharmacology, emphasis on the study of pain control mechanism in the central nervous system supported by N.I.H. Grant with two publications and meeting presentations, 1971-1977

Participant, San Diego Stroke Project, entailing research on the effects of tissue Plasminogen activator (TPA) on acute stroke outcome, 1991-1993

RESEARCH ACTIVITIES

Principal Investigator

Alzheimer's disease

D97-019 "Metrifonate investigational nationwide trial (M.I.N.T)." 1997

TVP1012-A001-201- A 1-Year, double-blind, randomized, placebo-controlled study of Rasagiline 1 mg and 2 mg added to Aricept 10 mg daily in patients with mild to moderate dementia of the Alzheimer's type, 2005

ELN115727-301 "A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Efficacy and Safety Trial of Bapineuzumab (AAB-001, ELN115727) in Patients with Mild to Moderate Alzheimer's Disease who are Apolipoprotein E-4 Non-Carriers, 2008

ELN115727-302 "A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Efficacy and Safety Trial of Bapineuzumab (AAB-001, ELN115727) in Patients with Mild to Moderate Alzheimer's Disease who are Apolipoprotein E-4 Carriers, 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

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

Stroke

NF198, 003 "A Double-Blind, Placebo-Controlled, Dose-Ranging Study of Nefiracetam in Patients with Post-Stroke Depression." 2001

003SE062601 – "A Randomized, Parallel Study to Assess the Outcomes of Treating Obstructive Sleep Apnea (OSA) with Auto Set T in Patients Recovering from Stroke." 2001 – 2003

NTS-INT06-007 "A Double-Blind, Randomized, Controlled, Parallel Group, Multi-Centre, Pivotal Study to Assess the Safety and Effectiveness of the Treatment of Acute Ischemic Stroke with the NeuroThera® Laser System within 24 Hours from Stroke Onset." Principal Investigator, 2007

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

Parkinson's disease

1198.100 NS2330 "A Fourteen-Week Placebo-Controlled Dose-Response Efficacy and Safety Study of NS 2330 in Early Parkinson's Disease Patients (Study for Poof of Concept in Early Parkinson's Disease of a Triple Reuptake Inhibitor, NS2330 / SPECTRE)" 2003

S308-3-003 " A Multi-Centre, Randomized, Double-Blind, Parallel-Group Placebo and Pramipexole Controlled Study to Assess Efficacy and Safety of SLV308 Monotherapy in the Treatment of Patients with Early Stage Parkinson's Disease" 2006

Parkinson's disease *Continued*

S308.3.008 "An extension of S308.3.003, A multi-centre, randomized, double-blind, parallel, group placebo and pramipexole controlled study to assess efficacy and safety of monotherapy in the treatment of patients with early stage Parkinson's disease." 2007

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.

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 Parkinsons disease." – 2013.

Other

K0718g"A phase III, multicenter, double-blind, placebo-controlled, parallel-group study of the efficacy and safety of recombinant human nerve growth factor (rhNGF) in subjects with diabetic neuropathy." 1997

A1481066 "A Multi-Center, Double-Blind, Placebo-Controlled Flexible Dose Study to Evaluate the Efficacy and Safety of Viagra® in Women Who Have Female Sexual Arousal Disorder Resulting From a Traumatic Spinal Cord Injury." 2002-2003

101468/205: A 12-Week, Double-Blind, Placebo Controlled, Parallel Group Study to Assess the Efficacy and Safety of Ropinirole XR (Extended Release) in Patients with Restless Legs Syndrome." 2005

E2020-A001-412: A One Year, Multicenter, Randomized, Double-Blind, Placebo-Controlled Evaluation of the Efficacy and Safety of Donepezil Hydrochloride (E2020) in Subjects with Mild Cognitive Impairment." 2005

PrecisionMed 8009: "Sample registry: Serial alzheimers disease and MCI prospective longitudinal evaluation longitudinal cognition follow-up and serial DNA/RNA/SERUM/PLASMA/CSF banking in subjects with MCI or MILD alzheimers disease." 2013

Sub-Investigator

Alzheimer's Disease

Suloctidil study for Alzheimer's Disease, Monsanto. 1987

Parke-Davis 979-14 "A 26-week, randomized, double-blind, placebo-controlled, parallel-group, multicenter with a sustained active phase study of Milameline (CI-979/RU 35926) in patients with probable Alzheimer's Disease." 1995 - 1996.

Parke-Davis 979-16 Open label extension of "A 26-week, randomized, double-blind, placebo-controlled, parallel-group, multicenter with a sustained active phase study of Milameline (CI-979/RU 35926) in patients with probable Alzheimer's disease." 1996

Alzheimer's Disease *Continued*

970-68-23 "A 16-week randomized, double-blind, placebo-controlled parallel-group, dose-response multicenter study of Tacrine (CI-970) once-a-day formulation (Tacrine GITS) with a 16-month open-label extension in patients with dementia of the Alzheimer's type." 1996 - 1997

970-68-23 Open label extension of "A 16-week randomized, double-blind, placebo-controlled parallel-group, dose-response multicenter study of Tacrine (CI-970) once-a-day formulation (Tacrine GITS) with a 16-month open-label extension in patients with dementia of the Alzheimer's type." 1996-1997

GAL-INT-11 "A randomized double blind placebo-controlled trial to evaluate the efficacy and safety of Galantamine in subjects with mild cognitive impairment (MCI) clinically at risk for development of clinically probable Alzheimer's disease." 2001

VP-AD-301 "A Double-Blind Placebo-Controlled Study of VP4896 for the Treatment of Mild to Moderate Alzheimer's Disease". 2006

PRX-03140 "A Randomized, Double-Blind, Placebo Controlled, Phase IIa Study to Assess the Short-Term Effects of PRX-03140 Alone and in Combination with Donepezil in Subjects with Mild Alzheimer's Disease." 2006

Epilepsy

M92-813 "Tiagabine HCl administration in patients with epilepsy." 1995 – 1998

3310101018 "A multicenter, double-blind, placebo-controlled, randomized, parallel-group trail of Rufinamide as adjunctive therapy in patients with inadequately controlled primary generalized tonic-clonic seizures." 1997 – 1998

E2080-A001-301 "A Double-Blind, Placebo-Controlled, Parallel-Group Study of Rufinamide Given as Adjunctive Therapy in Patients with Refractory Partial Seizures." 2006

Migraine

S2b-350 "Imitrex (Sumatriptan Succinate) injection, post-marketing surveillance study." 1995

CN102-021 - "A Randomized, Double-Blind Trial Comparing the Safety and Efficacy of Butorphanol Tartrate Nasal Spray Versus Acetaminophen and Codeine Phosphate Capsules Versus Placebo in Patients with Acute Migraine Headache Pain" – 1996

S2WA 1007 - "A Study to Evaluate the Pharmacokinetics and Pharmacodynamics of Oral Naratriptan in Migraine Subjects" - 1995-1996

S2WA 3001 - “A Randomized, Double-Blind, Placebo-Controlled, Dose Ranging Study to Evaluate the Efficacy and Safety of Four Doses of Oral Naratriptan in the Acute Treatment of a Single Migraine Attack” - 1995

CN115-0038—22 “An open label long-term trial evaluating the safety of BMS-180048 150mg in the treatment of patients with migraine headache with or without aura.” 1996

ALN-INT-16 “The efficacy and safety of Alniditan (1.4 or 1.8 mg SC) vs. Sumatriptan (6 mg SC) in the acute treatment of migraine: A randomized, double-blind, placebo-controlled, single-dose trial.” 1996

Migraine *Continued*

S2WA3003 “A randomized, double-blind, placebo-controlled, crossover study to evaluate the safety and efficacy of oral Naratriptan in the acute treatment of four migraine attacks.” 1995-96

ALN-USA-18 “Open evaluation of the long-term efficacy, safety and tolerability of 1.4 mg SC Alniditan in the acute treatment of migraine attacks.” 1996-97

SUMA 4014 - “A Double-Blind, Placebo-Controlled Parallel Group Study to Evaluate the Efficacy of a Second Sumatriptan Succinate Tablet (25 or 50 mg.) In the Acute Treatment of Migraine” - 1996-1997

311c90 - “A Double Blind, Randomized Comparison of Zolmatriptan and Sumatriptan in the Acute Treatment of Multiple Migraine Headaches.” 1997

SUMA4015 “A randomized, double-blind, placebo-controlled study to evaluate the impact of sumatriptan injection on workplace productivity loss due to migraine (Imitrex).” 1996 - 1997

VML 251/96/07 “A double-blind placebo-controlled, parallel-group study to assess the efficacy and safety of up to two doses of VML251 in the acute treatment of migraine.” (Vanguard) 1997

VML251/90/06 - “A Double Blind, Placebo Controlled, Parallel Group Study to Assess the Efficiency and Safety of a Single Dose of VML251 (2.5mg) in the Acute Treatment of Migraine”. 1997

1042-0117.12 “A Double-Blind, Parallel, Placebo-Controlled, Single-Dose, Outpatient Study of Ganaxolone for the Treatment of Migraine With or Without an Aura.” 1998-1999

LY303870 - “Dose Comparison of LY303870 in the Long Term Prophylaxis of Migraine” 1997

191622-024-00 “A Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of the Safety and Efficacy of three dosages of BOTOX® (Botulinum Toxin, Type A) Purified Neurotoxin Complex for the Prophylactic Treatment of Migraine Headaches.” 2001

A1601022 “A Multicenter Trial to Evaluate the Efficacy, Tolerability and Subject Satisfaction with Eletriptan in the Treatment of Migraine Headache Attacks in Neurology Practices.” 2001

M/3275/0008 “Oral Almotriptan (LAS31416) vs. Oral Sumatriptan in a double Blind, Randomized, Parallel Group Study of Cost-Effectiveness and Quality of life in Migraine.” 1988

M/3275/0011 “A long-term open label safety study of Almotriptan 12.5 mg orally in migraine patients.” 1988-1999

CN115-038-031 - “An Open Label long-term Trial Evaluating the Safety of BMS-180048 150 mg in the Treatment of Patients with Migraine Headache With or Without Aura” 1996

191622-037 “A Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of BOTOX® (Botulinum Toxin Type A) Purified Neurotoxin Complex for the Prophylactic Treatment of Migraine Headaches in the Episodic Migraine Population.” 2003

191622-038 “A Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of BOTOX® (Botulinum Toxin Type A) Purified Neurotoxin Complex for the Prophylactic Treatment of Headaches in the Chronic Headache Population.” 2003

Migraine *Continued*

CAPSS-155 “A Comparison of the Efficacy and Safety of Topamax® (Topiramate) Tablets Versus Placebo for the Prophylaxic of Migraine.” 2001

MT100-308 “A Double-Blind, Placebo-Controlled, Study to Evaluate the Safety and Efficacy of MT 100 Versus Over-Encapsulated Sumatriptan in Subj. with Acute Migraine Attacks.” 2001

MT100-402 – “A Double Blind, Randomized Placebo-Controlled, Study to Evaluate the Safety and Efficacy of MT 100 for the Treatment of Migraine in Subjects Who Are Intolerant to 5-HT Agonists or Have Cardiovascular Risk Factors.” 2001

MT100-401A – “A Double Blind, Randomized, Placebo-Controlled Study to Evaluate the Safety and Efficacy of a Two Tablet Dose of MT 100 for Treatment of Migraine in Imitrex® Non-responders.” 2001.

MT 300-302 – “A Randomized-Double-Blind, Placebo Controlled Evaluation of the Safety and Efficacy of MT 300 in the Acute Treatment of Migraine.” 2003.

SUM40298 – “A Randomized, Double-Blind, Placebo-Controlled, Single Attack, Parallel-Group Evaluation of the Efficacy of Sumatriptan 50mg Tablets versus Placebo in the Treatment of Self-Described and/or Physician-Diagnosed Sinus Headaches that Meet International Headache Society (HIS) Criteria for Migraine Headache.” 2003.

VML251/00/02 – “A Double-Blind, Placebo-Controlled, Three-Way Crossover clinical Study to Assess the Safety and Efficacy of Two Dose Regimens of Frovatriptan, Compared with Placebo, in Preventing Menstrually Associated Migraine (MAM) Headaches.” 2003

311CUS/0022 “A Multicenter, Randomized, Placebo-Controlled, Double-Blind, Parallel-Group Trial to Evaluate Early Efficacy and Tolerability of Zolmitriptan (Zomig) Nasal Spray in the Acute Treatment of Adult Subjects with Migraine” 2002-2003

MT300-401” A Multicenter Randomized, Single-Blind, Evaluation of Three Injectable Anti-Migraine Drugs” 2003

MT400-303 “An Open-label, Repeat Dose Study of the Safety of Combo Formulation in the Treatment of Multiple Episodes of Acute Migraine over 12 Months” 2004

065-00 (Maxalt) “A Multicenter, Double-Blind, Randomized, Parallel, Placebo-Controlled Study to Examine the Efficacy of Rizatriptan 10-mg Tablet Administered Early During a Migraine Attack While the Pain is Mild” 2004

MT400-301 (POZEN) “A Double-Blind, Multicenter, Randomized, Placebo-Controlled Single Dose Study to Evaluate the Safety and Efficacy of Trexima in the Acute Treatment of Migraine Headaches” 2004

VML251-3MRM/02 “A double-blind, placebo-controlled, parallel group study, with an open-label extension phase, to assess the efficacy, tolerability and safety of oral frovatriptan in the prevention of menstrually related migraine (MRM) headaches in a “difficult to treat” population.” 2005

001 – “A Randomized, Evaluator-Masked Trial to Evaluate the Efficacy of Botox Compared with Depakote in Migraine Prevention” 2004

Migraine *continued*

E2007-A001-210- (MARS) A Randomized, Double-Blind, Placebo-Controlled, Multi-Center, Parallel-Group Study to Evaluate the Efficacy and Safety of E2007 in Migraine Prophylaxis” 2005

A Single-Center, Double-Blind Comparison of BOTOX® (Botulinum Toxin Type A) and DEPAKOTE® for the Prophylactic Treatment of Migraine Headaches- Pilot Study. 2005

“A Single-Center, Double-Blind Comparison of Botox and Topiramate for the Prophylactic Treatment of Chronic Migraine Headache.” 2005

1602 “A Multi-Center, Randomized, Single-Blind, Controlled Study to Obtain Preliminary Safety and Efficacy Data for ONS Treatment of Chronic Migraine Headache”, 2005

191622-079 “A Multicenter Study Evaluating the Efficacy and Safety of Botox Purified Neurotoxin complex as Headache Prophylaxis In Migraine Patients with 15 or More headache Days per 4-Week Period in a 24 week, Double-Blind, Randomized, Placebo Controlled, Parallel-Group Phase Followed by a 32 Week Open-Label Phase”. 2006

TRX103632/635 “A Randomized, Double-Blind, Multi-Center, Placebo Controlled, Cross-Over Study to Determine the Consistency of Response for TREXIMA (Sumatriptan 85mg/Naproxen Sodium 500mg) in the Acute Treatment of Multiple Migraine Attacks” 2006

TRX106573 “A Randomized, Double-Blind, Multi-Center, Placebo-Controlled, Cross-Over Study of Trexima® in Migraine Subjects Who Report Poor Response or Intolerance to Relpax® “, 2006

NL-2006-001 “A Phase III Randomized, Double-Blind, Parallel Group, Sham-Controlled Study Evaluating the Efficacy and Safety of Non-Invasive, Non-Repetitive Transcranial TMS Stimulation (TMS) for the Acute Preemptive Treatment of the Aura Phase of Migraine Headache” 2007

TON/03/07-CLIN “A Multi-Centre, Parallel Group, Double-Blind, Placebo Controlled, Dose Ranging Study of the Efficacy and Tolerability of Tonabersat in the Prophylaxis of Migraine Headache and Open Label Extension” 2007

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

NXN-188-203 “A Phase 2 Study of the Safety and Effectiveness of a Single Oral Dose of NXN 188 for the Treatment of Moderate to Severe Migraine Headache with Aura” – 2009

NXN-188-204 “A Phase 2 Study of the Safety and Effectiveness of a Single Oral Dose of NXN 188 for the Treatment of Moderate to Severe Migraine Headache without Aura” – 2009

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

Multiple Sclerosis

BL01-3112 - “Phase III, Double-Masked, Placebo-Controlled Study to Evaluate the Safety and Efficacy of Two Doses of Betaseron in Patients with Secondary-Progressive Multiple Sclerosis.” 1996-1997

Multiple Sclerosis *continued*

6002i - “Phase II Study of Hu23F2G in Acute Exacerbation of Multiple Sclerosis” – 1997

Copolymer I Protocol 01-9002 - “A Long-Term Open Label Study to Evaluate the Safety of Copolymer I and to Extend Its Availability to Patients with Relapsing-Remitting Multiple Sclerosis” - 1994-1997

CAMMS223 – “A Phase II, Randomized, Open-Label, Three-Arm Study Comparing Low and High Dose CAMPATH (MABCAMPATH) and High Dose Rebif in Patient with Early, Active Relapsing-Remitting Multiple Sclerosis.” – Sub Investigator – 2003

9006- “A Multi-Center, Randomized, Double-Blind, Parallel Group Study to Evaluate the Efficacy, Tolerability, and Safety of 40mg of Copaxone in the Treatment of Relapsing-Remitting Multiple Sclerosis Patients”, Sub-Investigator, 2004

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 – 2006

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).” 2007

MPB8298-SP-03 “A Double-Blind, Placebo Controlled Multi-Center Study to valuate the Efficacy and Safety of MBP8298 in Subjects with Secondary Progressive Multiple Sclerosis.” 2007

28821 “A Phase III, Randomized, Double-Blind, Placebo-controlled, Multi-center Clinical trail of Oral Cladribine in subjects with a first clinical event at high risk of converting to MS

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

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

H9B-MC-BCDJ (a) –Multiple Subcutaneous Doses of LY2127399, an Anti-BAFF Human Antibody, in Subjects with Relapsing-Remitting Multiple Sclerosis" - 2009

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

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

Multiple Sclerosis *Continued*

FTY Prefer 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. 2012

Novartis Assess FTY (2312): Fingolimod vs. Glatiramer Acetate 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

Parkinson's disease

HL18317 "Open, Randomized, Multicenter study to assess the efficacy and safety of 1.25mg O.D. and 5 mg B.D. (or 10mg O.D.) Zydis Selegiline in the control of symptoms of Parkinson's Disease in patients stabilized in a regimen including Selegiline." 1996

NR15440/M35016 "Non-comparative Open Label Study to Identify Tasmar Dosage Regimen in Non-Fluctuating Parkinson's Disease Patients Treated with Sinemet; with Follow-Up Extension of Tasmar" 1997

"A/SEL/97/026, A randomized, double-blind, parallel-group study to compare the safety and efficacy of Zydis Selegiline 1.25 to 2.5 mg Q.D. with placebo as an adjunct in the management of Parkinsonian patients being treated with Levodopa who exhibit deterioration in the quality of their response to this therapy. " 1998

Z/SEL/95/008 EXTENSION – "An open, multicenter parallel group continuation study to assess the safety of 1.25mg qd and 10mg qd Zydis Selegiline in the control of symptoms of Parkinson's disease in patients stabilized on a regimen including Selegiline." 1998

RP54274X-320 "A Phase III Multicenter, Double-Blind, Parallel-Group, Placebo Controlled Study of the Effect of Riluzole 50 mg BID or 100 mg BID for Two Years on the Progression of Parkinson's Disease in 1050 Patients."

RP54274X-321 "A Phase III Multicenter, Double Blind, Parallel-Group Placebo Controlled Study of the Effect of Riluzole 50 mg BID or 100 mg BID on the Progression of Parkinson's Disease in Patients Treated With L-DOPA or Dopamine Agonist" 2002

Z/SEL/97/027 "An Open Extension Study of the Safety and Efficacy of Zydis Selegiline 1.25 to 2.5 mg Q.D. as an Adjunct in the Management of Parkinsonian Patients being treated with Levodopa." 2003

666E-CNS-0075-021 “A Phase III, Double-Blind, Placebo-Controlled, Randomized Study Comparing the Efficacy, Safety, and Tolerability of Sumanirole Versus Placebo or Ropinirole in Patients with Early Parkinson’s Disease.” Sub-Investigator – 2002-2003

M/2760/0011 “PNU-95666E: Open-Label, Long Term, Flexible Dose Study of Safety, Tolerability and Therapeutic Response in Patients with Parkinson’s Disease.” 2003

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