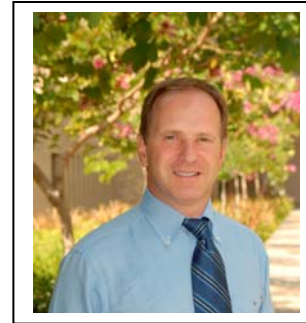


North County Neurology Associates dba  
The Neurology Center  
3907 Waring Rd, Suite 2,3,4, Oceanside, California, 92056  
320 Santa Fe Dr, Suite 108, Encinitas, Ca 92024  
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Phone 760-631-3000  
Fax 760-631-3016



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## *Andrew Michael Blumenfeld, M.D.*

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### EDUCATION

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**St. Andrews College, South Africa**  
First class pass and distinction in Mathematics, ■ 1975

**University of the Witwatersrand Faculty of Medicine, Johannesburg, South Africa**  
**Bachelor of Medicine and Surgery (MD equivalent), ■ 1976-1981**

**Johannesburg Hospital, South Africa, ■ 1981-1982**  
**Internship, General Surgery Resident, Internal Medicine Resident**

**No. 1 Military Hospital, South Africa ■ 1983-1984**  
Medical Officer (Full Lieutenant), Department of Internal Medicine

**Johannesburg Hospital, South Africa ■ 1985-1986**  
Neurology Resident, Department of Neurology

**University of Massachusetts Medical School ■ 1986-1989**  
Neurology Resident, Department of Neurology

**University of Massachusetts Medical School ■ 1989-1990**  
Neurophysiology Fellow: EEG and EMG Fellowship

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### LICENSURE

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California Medical License Number – A47863

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### CERTIFICATIONS

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American Board of Psychiatry and Neurology ■ January 1991  
United Council for Neurologic Subspecialties Certification in Headache Medicine ■ October 2008  
ECFMG Certification, Number 337-486-5 ■ 1981  
Registered - South African Medical and Dental Council, Number 24399 ■ 1983  
Registered - British Medical Council, Number 3100769 ■ 1985  
FMGEMS certification, Number 337-486-5 ■ 1986  
FLEX certification, Number 580421014 ■ 1987

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## AWARDS

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Achievement Award in Mathematics Olympiad (nationwide mathematics competition) ■ 1975

Academic Honors at St. Andrews College, South Africa ■ 1975

Dystonia Doctor of Excellence Award ■ 2000

Margaret Treat Excellence in Ethics Award, Kaiser Permanente ■ 2003

Race Across America: Completed ■ 2003

Race Across America: First Place, Corporate Challenge Division ■ 2004

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## ACADEMIC APPOINTMENTS

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### Neurology Instructor

University of Massachusetts, Medical School ■ 1988-1989

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## STAFF APPOINTMENT

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**Partner**, Private Group Practice, North County Neurology Associates, The Neurology Center, San Diego CA ■ 2004 - Present

**Director**, The Headache Center of Southern California ■ 2004 – Present

**Partner**, The Research Center of Southern California, LLC, Oceanside, California ■ 2007-Present

**Co-Director**, The Sleep Center of Southern California ■ 2009 – Present

**Staff Neurologist**, Kaiser Permanente, San Diego, California ■ 1990 – 2004

**Partner**, Southern California Permanente Medical Group, San Diego, California ■ May 29, 1992

**Chief of Service**, Kaiser Permanente, Neurology, San Diego, California ■ 1999 – 2004

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## HOSPITAL AFFILIATIONS

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**Tri-City Medical Center**, Oceanside, California, Active Privileges ■ 2004 - Present

**Scripps Memorial Hospital**, Encinitas, California, Active Privileges ■ 2004 – Present

**Scripps Memorial Hospital**, La Jolla, California, Active Privileges ■ 2004 – Present

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## MEMBERSHIPS

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American Academy of Neurology

San Diego Neurological Society

San Diego Medical Society

American Society of Headache

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COMMITTEE APPOINTMENTS:

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- Member, Bioethics committee, Kaiser Permanente, San Diego
  - Chairman, Bioethics committee, Kaiser Permanente, San Diego
  - Member, Regional Bioethics committee, Kaiser Permanente, Southern California
  - Member, Bioethics committee, Scripps Hospital, Encinitas CA
  - Chair, American Headache Society Special Section: Peripheral Nerve Block & Other Interventional Procedures for Headache & Facial Pain
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PUBLICATIONS AND PAPERS

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(A) Refereed Articles:

1. Blumenfeld AM, Seilling W, Isaacson M. Chloroquine-resistant plasmodium falciparum malaria in South Western Africa. S. Afr. Med J. 1984; 66: 207-208.
2. Blumenfeld AM, Seilling W. Acute autonomic neuropathy with Salmonella typhi infection. S. Afr. Med. J. 1987; 71: 532-533.
3. Fisher M., Blumenfeld AM, Smith TW. The importance of carotid artery plaque disruption and hemorrhage. Arch. Neurol. 1987; 44:1086-1089.
4. Chad DA, Smith TW, Blumenfeld AM, Fairchild PG. HIV-associated myopathy: Immunocytochemical Identification of an HIV antigen (gp 41) in muscle. Ann. Neurol. 1990; 28:579-582.
5. Temlett JA., Ming A, Saling M, Fritz VU, Blumenfeld AM, Bilchik T, Becker AL, Fourie PB, Reef HE. Adjunctive therapy with Bromocriptine in Parkinson's Disease. S. Afr. Med. J. 1990; 78:680-685.
6. Blumenfeld AM, Recht L, Chad DA, Griffin T, Jaeckle KA. Co-existence of Lambert-Eaton Myasthenic Syndrome and Subacute cerebellar degeneration in a patient with neuronal antibodies: differential effects of treatment. Neurology 1991; 41:1682-1685.
7. Blumenfeld AM. Impact of Botulinum Toxin Type A treatment on medication costs and usage in difficult to treat chronic headache. Headache Quarterly, Current Treatment and Research, Volume XIII, 2002.
8. Rammohan KW, Rosenberg JH, Lynn DJ, Blumenfeld AM, Pollak CP, Nagaraja HN. Efficacy and safety of Modafinil (Provigil) for the treatment of fatigue in Multiple Sclerosis: a two centre phase 2 study. J Neurol Neurosurg Psychiatry 2002; 72: 0-4.
9. Blumenfeld AM. Center of Excellence for Headache Care: Group Model at Kaiser Permanente. Headache 2003; 43: 431-450.
10. Blumenfeld AM, Evans RW. Expert Opinion-Botulinum Toxin Injection for Headache. Headache 2003,43:682-685.

11. Blumenfeld AM, Binder W, Silberstein S, Blitzer A. Procedures for Administering Botulinum Toxin Type A for Migraine and Tension Headache. Headache 2003, 43:884-891.
12. Blumenfeld AM. Botulinum Toxin Type A as an Effective Prophylactic Treatment in Primary Headache Disorders. Headache 2003, 43:853-860.
13. Silberstein S, Blumenfeld AM, Dodick D. Botulinum Neurotoxin for the Treatment of Migraine and other Primary Headache Disorders. Clinics in Dermatology 2004, 22:167-175.
14. Blumenfeld AM, Binder WJ., Blitzer A, Katz H. The Emerging Role of Botulinum Toxin Type A in Headache Prevention. Operative Techniques in Otolaryngology – Head and Neck Surgery, 2004, 15:90-96.
15. Blumenfeld AM, Welch KMA. Controversies in Headache Botulinum Toxin Type A for the treatment of Headache. Headache 2004, 44:825-830.
16. Maizels M, Blumenfeld AM., Burchette R. A Combination of Riboflavin, Magnesium and Fever Few for Migraine Prophylaxis: A randomized trial. Headache 2004, 44:885-890.
17. Blumenfeld AM. Clinical Approaches to Migraine Prophylaxis. The American Journal of Managed Care, Supplement 2005, 11:S55 – S61.
18. Harpole L H, Samsa G P, Matchar D B, Silberstein S D, Blumenfeld A, Jurgelski A E. Burden of illness and satisfaction with care among patients with headache seen in a primary care setting. Headache, 2005; 45:1048-1055.
19. Elkind AH, O'Carroll P, Blumenfeld A, DeGryse R, Dimitrova R. BoNTA-024-026-036 Study Group. A series of three sequential, randomized, controlled studies of repeated treatments with botulinum toxin type A for migraine prophylaxis. J Pain. 2006;10: 688-96.
20. Blumenfeld AM., Chippendale TJ., Schim JD. Botulinum toxin type A versus divalproex sodium for prophylactic migraine treatment: a randomized, evaluator-masked trial. Headache Care, 2006; 3(4): 119-127.
21. Blumenfeld AM., Schim JD., Chippendale TJ. Botulinum Toxin Type A and Diavalproex Sodium for Prophylactic Treatment of Episodic or Chronic Migraine. Headache, 2008; 48: 210-220.
22. Matchar DB, Harpole L, Samsa GP, Jurgelski A, Lipton RB, Silberstein S, Young W, Kori S, Blumenfeld A. The Headache Management Trial: A Randomized Study of Coordinated Care. Headache, 2008; 48:1294-1310.
23. Andrew Blumenfeld, et al. Patterns of use of Peripheral Nerve Blocks and Trigger Points Injections among Headache Practitioners in the USA: Results of the American Headache Society Interventional Procedure Survey. Headache, 2010; 50: 937-942.
24. Avi Ashkenazi MD, Andrew Blumenfeld MD, et al. Review Article: Peripheral Nerve Blocks and Trigger Point Injections in Headache Management – A systematic Review and Suggestions for future Research. Headache, 2010; 50: 943- 952.

25. Andrew Blumenfeld MD, Avi Ashkenazi MD. Editorial: Nerve Blocks, Trigger Point Injections and Headache. Headache, 2010; 50: 953-954.
  27. A Blumenfeld, SD. Silberstein, DW. Dodick, SK. Aurora, CC. Turkel, WJ. Binder. Method of Injection of OnabotulinumtoxinA for Chronic Migraine: A Safe, Well-Tolerated, and Effective Treatment Paradigm Based on the PREEMPT Clinical Program. Headache 2010;50:1406-1418.
  28. Cady RK, Schreiber CP, Porter JA, Blumenfeld AM, Farmer KU. A multi-center double-blind pilot comparison of onabotulinumtoxinA and topiramate for the prophylactic treatment of chronic migraine. Headache 2011 Jan;51(1):21-32. doi: 10.1111/j.1526-4610.2010.01796.x. Epub 2010 Nov 10.
  29. Andrew Blumenfeld, Jack Schim, Jessica Brower. Pure Tension-type Headache Versus Tension-type Headache in the Migraineur. Volume 14, Issue 6 Current Pain and Headache Reports.
  30. Andrew M Blumenfeld. Injection Procedure Record for onabotulinumtoxinA (BOTOX<sup>®</sup>, Allergan, Inc., Irvine, CA, USA) treatment. Headache, 2011;51:189
  31. Blumenfeld A, Varon S, Wilcox TK, Buse D, Kawata AK, Manack A, Goadsby PJ, Lipton RB. Disability, HRQoL and resource use among chronic and episodic migraineurs: Results from the International Burden of Migraine Study (IBMS). Cephalalgia. 2011;31(3):301-315.
  32. Payne KA, Varon SF, Kawata AK, Yeomans K, Wilcox TK, Manack A, Buse DC, Lipton RB, Goadsby PJ, Blumenfeld AB. The International Burden of Migraine Study (IBMS): Study design, methodology, and baseline cohort characteristics. Cephalalgia. 2011; 31(10): 1116-1130.
  33. Stokes ME, Becker WJ, Lipton RB, Sullivan SD, Wilcox TK, Wells L, Manack A, Proskorovsky I, Gladstone J, Buse DC, Varon S, Goadsby PJ, Blumenfeld AB. Cost of health care among patients with chronic and episodic migraine in Canada and the USA: Results from the International Burden of Migraine Study (IBMS). Headache 2011;51(7):1058-1077.
- (B) Letters:
1. Fisher M., Blumenfeld A.M., Smith T.W. Carotid Plaque Disruption. Arch. Neurol. 1989; 46:605.
  2. Fisher M., Lingley J.F., Blumenfeld A.M., Felice K. Anterior choroidal artery territory infarction and small vessel disease. Stroke 1989; 20:1591-1592.
  3. Blumenfeld A. Does single-file Botox injection really work for primary headache? Headache, 2004; 8: 838-9.

(C) Chapters and Reviews:

1. Phillips C., Blumenfeld A.M. Status Epilepticus. Intensive Care Medicine, Second Edition, 1991, 1565-1569.
2. Blumenfeld A. M. Botulinum Toxin in Primary Headache Disorders. Medlink 2003 - 2011.

(D) Guidelines:

1. Blumenfeld A. M., Blalock E., Kazimiroff P., Van Petten C., Ratcliffe J. Headache Guidelines. Clinical Practice Guidelines, Kaiser Permanente 1996.
2. Blumenfeld A. M., Headache Guidelines. Clinical Practices Guidelines, Kaiser Permanente 2003.

(F) Books:

Rapoport A., Sheftell F., Tepper S. J., Blumenfeld A. M. Conquering Daily Headache 2008 Decker DTC.

(E) Posters:

1. Blumenfeld A. Chronic daily headache treated non-pharmacologically with Nociceptive Trigeminal Inhibition Dental Splint. Presented at the International Headache Society, London September 2008.
2. Aurora S, Schim J, Cutrer FM, Ward TN, Blumenfeld AB, Lay C, Patel S, Lei X, Turkel CC. Botulinum neurotoxin type A for treatment of chronic migraine: PREEMPT 1 trial double-blind phase. Presented at the 14th International Headache Congress (IHC), September 10-13, 2009, Philadelphia, Pennsylvania; PO45.
3. Buse D, Lipton RB, Kawata AK, Varon SF, Manack A, Wilcox TK, Goadsby PJ, Blumenfeld A. Global impact of chronic migraine (CM) compared to episodic migraine (EM) on health-related quality of life (HRQoL), depression and anxiety. Presented at the 14th International Headache Congress (IHC), September 10-13, 2009, Philadelphia, Pennsylvania.
4. Blumenfeld A, Tarzeman R, Neshandar M, Jalalian E, Beladimoghaddam N. Combination therapy: Valproic Acid with an NTI clenching reduction dental splint for prophylactic treatment of primary Headache: a pilot study for efficacy assessment. Presented at the 14th International Headache Congress (IHC), September 10-13, 2009, Philadelphia, Pennsylvania.
5. Payne KA, Wilcox TK, Yeomans K, Kawata AK, Varon SF, Burk CT, Lipton RB, Blumenfeld A. Clinical history, resource utilization, and other patient-reported outcomes (PROs) in migraineurs: An adaptable web-based methodology for the design, implementation and conduct of a multinational survey of patients. Presented at the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 14th Annual International Meeting, May 16-20, 2009, Orlando, Florida.
6. Payne KA, Wilcox TK, Yeomans K, Kawata AK, Varon SF, Burk CT, Lipton RB, Blumenfeld A. Clinical history, resource utilization, and other patient-reported outcomes (PROs) in migraineurs: An adaptable web-based methodology for the design, implementation and conduct of a multinational survey of patients. Presented

at the 12th European International Society for Pharmacoeconomics and Outcomes Research Congress (ISPOR EU), October 24-27, 2009, Paris, France.

7. Silberstein SD, Blumenfeld AM, Cady RK, Turner IM, Sirimanne M, DeGryse R, Turkel CC. OnabotulinumtoxinA for treatment of chronic migraine: Analysis of the PREEMPT chronic migraine subgroup who were overusing acute headache medications at baseline. Presented at the 14th International Headache Congress (IHC), September 10-13, 2009, Philadelphia, Pennsylvania; PO49.
8. Varon SF, Blumenfeld A, Lipton RB, Manack A, Buse D, Wilcox TK, Goadsby PJ, Kawata AK. Health care resource utilization patterns among individuals with chronic migraine (CM) and episodic migraine (EM). Presented at the 14th International Headache Congress (IHC), September 10-13, 2009, Philadelphia, Pennsylvania, PO126.
9. Varon SF, Burk CT, Buse DC, Kawata AK, Payne KA, Blumenfeld A, Lipton RB. Impact of chronic (CM) and episodic migraine (EM) on work presenteeism in 9 countries. Presented at the 12th European International Society for Pharmacoeconomics and Outcomes Research Congress (ISPOR EU), October 24-27, 2009, Paris, France.
10. Varon SF, Burk CT, Buse DC, Kawata AK, Payne KA, Blumenfeld A, Lipton RB. Impact of chronic (CM) and episodic migraine (EM) on work presenteeism in 9 countries. Presented at the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 14th Annual International Meeting, May 16-20, 2009, Orlando, Florida.
11. Aurora SK, Dodick DW, Blumenfeld AM, DeGryse RE, Turkel CC. OnabotulinumtoxinA for Chronic Migraine: Safety and Tolerability of the Effective Treatment Paradigm in the PREEMPT Clinical Program. Presented at the 52nd Annual Scientific Meeting of the American Headache Society (AHS), June 24-27, 2010, Los Angeles, California; PO-27.
12. Blumenfeld AM, Silberstein SD, Dodick DW, Aurora SK, Turkel CC, Binder WJ. OnabotulinumtoxinA for chronic migraine: PREEMPT clinical program establishes a safe and effective dose and injection paradigm. Presented at the 62nd Annual Meeting of the American Academy of Neurology (AAN), April 10-17, 2010, Toronto, ON, Canada.
13. Blumenfeld AM, Silberstein SD, Dodick DW, Aurora SK, Turkel CC, Binder WJ. OnabotulinumtoxinA for chronic migraine: PREEMPT trials establish a safe and effective dose and injection paradigm. Presented at the 2nd European Headache and Migraine Trust International Congress (EHMTIC 2010), October 28-31, 2010, Nice, France.
14. Becker WJ, Kawata AK, Yeomans K, Varon SF, Lipton RB, Wells L, Blumenfeld AM. Headache severity, comorbidities, and healthcare resource utilization (RU) among chronic migraine (CM) and episodic migraine (EM) in Canada. Presented at the Canadian Neurological Sciences Federation (CNSF) 45th Annual Congress, June 8-11, 2010, Quebec City, Canada.
15. Becker WJ, Wilcox TK, Wells L, Blumenfeld AM, Kawata AK, Varon SF, Lipton RB. Migraine-related disability, work impact, and quality of life (QOL) among Canadians with chronic migraine (CM) and episodic migraine (EM). Presented at the Canadian Neurological Sciences Federation (CNSF) 45th Annual Congress, June 8-11, 2010, Quebec City, Canada.

16. Blumenfeld AM, Kawata TK, Goadsby PJ, Buse DC, Wilcox TK, Varon SF, Lipton RB. Preventive medication use among Americans with chronic and episodic migraine. Presented at the American Managed Care Pharmacy (AMCP) 2010 Educational Conference, October 13-15, 2010, St. Louis, Missouri.
17. Blumenfeld AM, Lipton RB, Buse DC, Kawata AK, Wilcox TK, Varon SF, Goadsby PJ. Impact on chronic and episodic migraine on work patterns in five European countries. Presented at the 2nd European Headache and Migraine Trust International Congress (EHMTIC 2010), October 28-31, 2010, Nice, France.
18. Cortelli P, Martelletti P, Stokes M, Varon SF, Sullivan SD, Blumenfeld AM, Buse DC, Lipton RB, Wilcox TK, Goadsby PJ. Healthcare resource use and costs among chronic and episodic migraine in Italy. Presented at the XLI Congresso Societa Italiana di Neurologia (SIN), 2010.
19. Cortelli P, Martelletti P, Lipton RB, Blumenfeld A, Kawata AK, Varon SF, Renoldi M, Goadsby PJ. Impact of chronic versus episodic migraine on disability, health-related quality of life in Italy. Presented at the Italian Internal Medicine Congress (SIMI), 2010.
20. Cortelli P, Martelletti P, Lipton RB, Blumenfeld A, Kawata AK, Varon SF, Renoldi M, Goadsby PJ. Impact of chronic versus episodic migraine on disability and health-related quality of life in Italy (Impatto dell'emicrania cronica rispetto all'emicrania episodica sulla disabilita di vita in Italia. Presented at the IV Congresso Nazionale Associazione Neurologica Italiana per la Ricerca sulle Cefalee (ANIRCEF), June 2, 2010, Genoa, Italy.
21. Cortelli P, Martelletti P, Lipton RB, Blumenfeld A, Kawata AK, Varon SF, Renoldi M, Goadsby PJ. Impact of chronic versus episodic migraine on disability, health-related quality of life in Italy. Presented at the XLI Congresso Societa Italiana di Neurologia (SIN), 2010.
22. Cortelli P, Martelletti P, Stokes M, Varon SF, Sullivan S, Blumenfeld A, Buse DC, Lipton RB, Wilcox TK, Goadsby PJ. Healthcare resource use and costs among chronic and episodic migraine in Italy. Presented at the Italian Internal Medicine Congress (SIMI), 2010.
23. Goadsby PJ, Lipton RB, Varon SF, Buse DC, Kawata AK, Wilcox TK, Blumenfeld A, Girod I. Impact of chronic versus episodic migraine on disability, health-related quality of life (HRQoL) and resource utilization in the UK. Presented at the Association of British Neurologists (ABN) Annual Meeting, May 11-14, 2010, Bournemouth, UK; POH02.
24. Katsarava Z, Blumenfeld A, Wilcox TK, Voelkel H, Varon SF, Buse DC, Lipton RB, Goadsby PJ. Der Einfluss chronischer im Vergleich zu episodischer Migräne auf Behinderung, Gesundheits-bezogene Lebensqualität (HRQoL) und Inanspruchnahme von Gesundheitsleistungen in Deutschland. Presented at the Deutscher Schmerzkongress, 2010.
25. Kawata AK, Maglente GA, Doan QV, Lipton RB, Wilcox TK, Blumenfeld AM, Goadsby PJ. Comparing EuroQoL-5 Dimensions (EQ-5D) index scores between subjects with Chronic Migraine (CM) and Episodic Migraine (EM) in five European countries and with other chronic diseases. Presented at the 14th Congress of the European Federation of Neurological Societies (EFNS), September 25-28, 2010, Geneva, Switzerland.

26. Kawata AK, Varon SF, Blumenfeld AM, Lipton RB, Wilcox TK, Goadsby PJ. Health-related quality of life among subjects with chronic migraine and episodic migraine in five European countries. Presented at the 14th Congress of the European Federation of Neurological Societies (EFNS), September 25-28, 2010, Geneva, Switzerland.
27. Lipton RB, Blumenfeld A, Ishak KJ, Varon SF, Kawata AK, Manack A, Buse DC, Goadsby PJ. Determinants of migraine-related disability. Presented at the 62nd Annual Meeting of the American Academy of Neurology (AAN), April 10-17, 2010, Toronto, ON, Canada.
28. Lipton RB, Varon SF, Goadsby PJ, Buse DC, Kawata AK, Wilcox TK, Blumenfeld AM. Acute medication use among Americans with chronic and episodic migraine. Presented at the American Managed Care Pharmacy (AMCP) 2010 Educational Conference, October 13-15, 2010, St. Louis, Missouri.
29. Martelletti P, Cortelli P, Lipton RB, Blumenfeld AM, Kawata AK, Varon SF, Renoldi M, Goadsby PJ. Healthcare resource use and costs among chronic and episodic migraine in Italy. Presented at the XXIV Congresso Nazionale Societa Sientica Multidisciplinare Dedicata alla Cefalee (SISC), 2010.
30. Martelletti P, Cortelli P, Lipton RB, Blumenfeld AM, Kawata AK, Varon SF, Renoldi M, Goadsby PJ. Impact of chronic versus episodic migraine on disability and health-related quality of life in Italy. Presented at the XXIV Congresso Nazionale Societa Sientica Multidisciplinare Dedicata alla Cefalee (SISC), 2010.
31. Stokes M, Varon SF, Blumenfeld AM, Buse DC, Lipton RB, Wilcox TK, Goadsby PJ. Health resources uses and costs among chronic and episodic migraine in five european countries. Presented at the 2nd European Headache and Migraine Trust International Congress (EHMTIC 2010), October 28-31, 2010, Nice, France.
32. Blumenfeld A. Adverse events related to the NTI splint: report from the Headache Hope study. Presented at the 2nd European Headache and Migraine Trust International Congress (EHMTIC 2010), October 28-31, 2010, Nice, France.
33. Stokes M, Varon SF, Sullivan SD, Blumenfeld AM, Lipton RB, Goadsby PJ, Wilcox TK. Healthcare resource use and costs among chronic and episodic migraine in the United States. Presented at the American Managed Care Pharmacy (AMCP) 2010 Educational Conference, October 13-15, 2010, St. Louis, Missouri.
34. Wilcox TK, Blumenfeld A, Varon S, Payne K, Manack A, Buse D, Goadsby P, Lipton R. Relationship between headache frequency and migraine-related disability in the International Burden of Migraine Study (IBMS). Presented at the 62nd Annual Meeting of the American Academy of Neurology (AAN), April 10-17, 2010, Toronto, ON, Canada.
35. Becker WJ, Buse DC, Lipton RB, Bloudek LM, Maglinte GA, Varon SF, Wilcox TK, Kawata AK, Blumenfeld AM. Discontinuation of preventive treatment for episodic migraine (EM) and chronic migraine (CM): Results from the International Burden of Migraine Study-II (IBMS-II). Presented at 15th Congress of the International Headache Society (IHC), June 23-26, 2011, Berlin, Germany.
36. Blumenfeld AM, Buse DC, Becker WJ, Wilcox TK, Kawata AK, Bloudek LM, Maglinte GA, Varon SF, Lipton RB. Sociodemographics and headache-related disability among persons with episodic migraine or chronic migraine by preventive medication use status: Results from the International Burden of Migraine Study-II (IBMS-II). Presented at 15th Congress of the International Headache Society (IHC), June 23-26, 2011, Berlin, Germany.

37. Blumenfeld AM, Silberstein SD, Dodick DW, Aurora SK, Turkel CC, Binder WJ. OnabotulinumtoxinA for chronic migraine: PREEMPT trials establish a safe and effective dose and injection paradigm. Presented at the 7th International Congress on Basic and Therapeutic Aspects of Botulinum and Tetanus Toxins (TOXINS 2011), October 2-5, Santa Fe, New Mexico.
38. Lipton RB, Bloudek LM, Blumenfeld AM, Buse DC, Wilcox TK, Kawata AK, Maglinte GA, Varon SF, Becker WJ. Use of preventive medications for episodic migraine and chronic migraine: Results from the International Burden of Migraine Study-II (IBMS-II). Presented at 15th Congress of the International Headache Society (IHC), June 23-26, 2011, Berlin, Germany.
39. Maglinte GA, Bloudek LM, Stokes ME, Wells L, Blumenfeld AM, Lipton RB, Buse DC, Becker WJ, Wilcox TK. Costs associated with lost productive time among working adults with chronic and episodic migraine in the United States and Canada. Presented at 63rd American Academy of Neurology (AAN) 2011 Annual Meeting, April 9-16, 2011, Honolulu, Hawaii.
40. Maglinte GA, Bloudek LM, Stokes ME, Wells L, Blumenfeld AM, Lipton RB, Buse DC, Becker WJ, Wilcox TK. Costs associated with lost productive time among working adults with chronic and episodic migraine in the United States and Canada. Presented at the 22nd Annual Meeting of the American Academy of Pain Management (AAPM), September 20-23, 2011, Las Vegas, Nevada.
41. Stokes ME, Varon SF, Sullivan S, Blumenfeld AM, Lipton RB, Goadsby PJ, Wilcox TK. Healthcare resource use and costs among patients with chronic and episodic migraine in the United States. Presented at 63rd American Academy of Neurology (AAN) 2011 Annual Meeting, April 9-16, 2011, Honolulu, Hawaii; P06.016.
42. Stokes ME, Varon SF, Sullivan S, Blumenfeld AM, Lipton RB, Goadsby PJ, Wilcox TK. Healthcare resource use and costs among patients with chronic and episodic migraine in the United States. Presented at the 22nd Annual Meeting of the American Academy of Pain Management (AAPM), September 20-23, 2011, Las Vegas, Nevada.

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#### MEDICAL JOURNAL REVIEWER

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- Headache Journal
- Cephalalgia Journal
- Neurology Journal

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#### CONSULTANT POSITIONS

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- Allergan: National Headache Advisor
- Pfizer: National Headache Advisor
- GSK: National Headache Advisor
- Zogenix: National Headache Advisor
- Posen: National Headache Advisor

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## PATENTS

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- Use of Botulinum toxins in the treatment of neuro-psychiatric conditions. Granted in: AU, CH, CN, DE, DK, ES, FR, UK, IE, IT, MX, NL, SE. EP 1677823
- Sphenopalatine injection technique using botulinum toxins and like substances for the treatment of headache and related disorders. Granted in US: 7,655,244 & 7,749,515.

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## PRESENTATIONS

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- Boston Society for Neurology and Psychiatry: Coexistence of Lambert Eaton
- Myasthenic Syndrome and Subacute Cerebellar Degeneration. April 14, 1987.
  
- American Academy of Neurology: Clinical use of Botulinum toxin Skills Workshop. May 3, 1992.

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## RESEARCH ACTIVITIES

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1996 – 1999	Sub-Investigator: Berlex Protocol 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 - 1998	Principal Investigator: Genentech Protocol A027 g. Thrombolytic Therapy in Acute Ischemic Stroke.
1997	Principal Investigator: Genentech Protocol A0734n Stroke Presentation Survey.
1997-1998	Principal Investigator: Genentech Protocol A0728n. A phase IV Study of Activase in Acute Ischemic Stroke.
1997- 1999	Sub-Investigator: Biogen Protocol C95-812. A Randomized Double-Blind, Placebo-Controlled Study of AVONEX in the Treatment of Subjects at High Risk for Development of Multiple Sclerosis Following the First Onset of an Isolated Demyelization Event (CHAMPS).
1998	Principal Investigator: Bayer Protocol D97-019. Metrifonate Investigational Nationwide Trial (MINT).
1998- 2000	Principal Investigator: Astra Protocol SA-CMZ-0009. The Clomethiazole Acute Stroke Study in Ischemic Stroke (CLASS-I): A Double-Blind, Parallel Group, Multinational, Multicenter Study of the Efficacy and Safety of IV Clomethiazole Compared to Placebo in Patients with Acute Ischemic Stroke.

- 1999- 2000 Sub- Investigator: Cephalon C 153a/402/AP/US. A Four Week, Double-Blind, Placebo-Controlled, Multicenter, Randomized, Parallel-Group Study of the effect of Provigil on Excessive Daytime Sleepiness and Vigilance in Obstructive Sleep Apnea Patients treated with Nasal Continuous Positive Airway Pressure.
- 1999- 2000 Sub- Investigator: Cephalon: A Multicenter, Double-Blind, Clinical Trial to Assess Safety and Efficacy of the treatment of Fatigue in Multiple Sclerosis with Provigil.
- 2000 Principal Investigator: Allergan Protocol 191622-024-00.  
A Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel Group study of the Safety and Efficacy of three doses of Botulinum Toxin Type A purified neurotoxin complex for the treatment of migraine headaches.
- 1999-2000 Principal Investigator: Allergan Protocol 191622-026-00.  
A Multicenter, Double-Blind, Randomized, Parallel Group Study of the Safety and Efficacy of Botulinum Toxin, Type A Purified Neurotoxin Complex for the Prophylactic Treatment of Migraine Headaches.
- 1999-2001 Principal Investigator: Allergan Protocol 191622-027.  
A Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel Study to Assess the Safety and Efficacy of Botulinum Toxin Type A Purified Neurotoxin Complex Injected into Bilateral Pericranial Muscles for the Prophylactic Treatment of Chronic Tension Type Headaches.
- 1999-2002 Co-Investigator: Serono Protocol Number 21125. An Open-Label, Randomized, Multicenter, Comparative, Parallel Group Study of Rebif 44 mcg Administered Three Times Per Week by Subcutaneous Injection, Compared with Avonex 30 mcg Administered Once per Week by Intramuscular Injection in the Treatment of Relapsing-Remitting Multiple Sclerosis.
- 1999- 2001 Principal Investigator: Glaxo: Headache Management in an HMO setting.
- 2000-2001 Principal Investigator: Allergan Protocol 191622-036-00.  
A Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of the Continuation of Benefit of Two Dosages of Botulinum Toxin Type A Purified Neurotoxin Complex for the Prophylactic Treatment of Migraine Headaches.
- 2000-2002 Co-Investigator: A Double-Blind Trial of Magnesium with Riboflavin and Feverfew for the Prevention of Migraine Headaches.
- 2000 Principal Investigator: Dementia Management and Guideline Implementation in an HMO Setting.
- 2000-2001 Principal Investigator: Duke: An Assessment of the Burden of Headache in Primary Care Practices.
- 2001 Co-Investigator: Merck & Co.: The Use of an Internet-Based Headache Assessment Tool to Assist in the Management of an Emergency Department Headache Population.
- 2001-2002 Principal Investigator: Allergan: Pharmacoeconomics Retrospective Analysis of Fifty Headache Patients Treated with Botulinum Toxin A.

2001	Principal Investigator: Duke: A Randomized Trial of Headache Management Programs.
2001- 2003	Co- Investigator: UCSD: Impact of Ethics Consultation in the Intensive Care Unit.
2001-2003	Principal Investigator: Serono: A randomized, multi-center, parallel group, open labeled study comparing the tolerability of Rebif injections with and without the use of Rebiject Mini in relapsing remitting Multiple Sclerosis patients.
2001	Principal Investigator: Allergan: A Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of Multiple Treatments of Botox (Botulinum Toxin Type A) Purified Neurotoxin Complex for the Prophylactic Treatment of Headaches in the Chronic Headache Population. 191622-038
2002	Principal Investigator: Allergan: A Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of Multiple Treatments of BOTOX (Botulinum Toxin Type A) Purified Neurotoxin Complex for the Prophylactic Treatment of Migraine Headache in the Episodic Migraine Population. 191622-037
2002	Principal Investigator: Pfizer: A Multicenter, Double-blind, Randomized, Placebo-controlled Study of Eletriptan (20 and 40mg) Versus Placebo in Early Treatment of Migraine.
2002- 2003	Co-Investigator: Serono: A phase II, multi-center, randomized, double-blind, placebo controlled, dose-finding study of subcutaneous administration of Interferon (beta-1a) for Maintenance of remission in patients with Crohn's disease.
2002- 2003	Co-Investigator: Serono: A multi-center, open label, long-term, safety study of subcutaneous administered Interferon (Beta-1a) in patients who completed or discontinued from a previous Serono sponsored study for maintenance of remission of Crohn's Disease.
2002-2003	Principal Investigator: Immunex: Registry to evaluate Novantrone effects in worsening Multiple Sclerosis (RENEW) Prospective, open label, tolerability and safety monitoring study of Novantrone in a selected cohort of Multiple Sclerosis patients.
2002	Principal Investigator: Merck: Evaluation of Knowledge, Motivation and Patient-Provider Communication in a Headache Class, a Component of a Headache Management Program.
2002	Principal Investigator: Allergan: A Prospective Database to Assess Botox Treatment Results.
2002	Principal Investigator: Thomas Jefferson University: Program to Assess Treatment Strategies: A Botox Observational Program. (PATS)
2004	Sub-Investigator: 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 Sub-Investigator: 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 Sub-Investigator: 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 Sub-Investigator: 9006- (TEVA) “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”
- 2004 Sub-Investigator: 1198.100 “A 14-week placebo-controlled dose-response efficacy and safety study of NS 2330 in Early Parkinson’s Disease patients (Study of the Concept of treating Early Parkinson’s Disease with a Triple Reuptake inhibitor, NS 2330) [SCEPTRE]”
- 2005 Sub-Investigator: 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 Sub-Investigator: 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.
- 2004 Sub-Investigator: 001 – “A Randomized, Evaluator-Masked Trial to Evaluate the Efficacy of Botox Compared with Depakote in Migraine Prevention”
- 2005 Sub-Investigator: E2007-A001-210- A Randomized, Double-Blind, Placebo-Controlled, Multi-Center, Parallel-Group Study to Evaluate the Efficacy and Safety of E2007 in Migraine Prophylaxis.
- 2005 Principal-Investigator: A Single-Center, Double-Blind Comparison of BOTOX® (Botulinum Toxin Type A) and DEPAKOTE® for the Prophylactic Treatment of Migraine Headaches- Pilot Study.
- 2004 Sub-Investigator: 9.159 PRoFESS- Prevention Regimen For Effectively avoiding Second Strokes: A double-blind, active and placebo controlled study of Aggrenox® vs. clopidogrel + aspirin, with and without Micardis®.
- 2004 Sub-Investigator: SA-NXY-0007: “A Double-Blind, Randomized, Placebo Controlled, Parallel Group, Multicenter, Phase IIb/III Study to Assess the Efficacy and Safety of Intravenous NXY-059 in Acute Ischemic Stroke”.
- 2005 Sub-Investigator: F7ICH-1641 A Randomized, Double-Blind, Placebo Controlled, Multi-Centre, Parallel Groups Confirmatory Efficacy and Safety Trial of Activated Recombinant Factor VII (NovoSeven®/Niastase® in Acute Intracerebral Hemorrhage.
- 2005 Sub-Investigator: 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 Sub-Investigator: 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 Principal Investigator: 1602 “A Multi-Center, Randomized, Single-Blind, Study to Obtain Preliminary Safety and Efficacy Data for ONS Treatment of Chronic Migraine Headache”.
- 2005 Principal Investigator: “A Single-Center, Double-Blind Comparison of Botox and Topiramate for the Prophylactic Treatment of Chronic Migraine Headache”.
- 2006 Sub-Investigator 191622-079/080 “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 Sub-Investigator: VP-AD-301 “A Double-Blind Placebo-Controlled Study of VP4896 for the Treatment of Mild to Moderate Alzheimer’s Disease”.
- 2006 Sub-Investigator: NTI-ASP-0502 “A Randomized, Double-Blind, Placebo Controlled Study of Ancrod (Viprinex) in Subjects Beginning Treatment within 6 Hours of the Onset of Acute Ischemic Stroke”.
- 2006 Sub-Investigator: CD-0125 “Safety and Efficacy of NeuroFlo Technology in Ischemic Stroke”.
- 2006 Sub-Investigator: 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 Sub-Investigator: E2080-A001-301 “A Double-Blind, Placebo-Controlled, Parallel-Group Study of Rufinamide Given as Adjunctive Therapy in Patients with Refractory Partial Seizures”.
- 2006 Sub-Investigator: 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 Sub-Investigator: 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 Sub-Investigator: FTY20D2309 “A 24-Month Double-Blind, Randomized, Multi-Center, 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”.
- 2006 Sub-Investigator: S308-3-003 “A Multi-Center, 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 Sub-Investigator: NTS-INT06-007 “A Double-Blind, Randomized, Controlled, Parallel Group, Multi-Center, Pivotal Study to Assess the Safety and Effectiveness of the Treatment of Acute Ischemic Stroke with the NeuroThera<sup>®</sup> Laser System within 24 Hours from Stroke Onset”.
- 2006 Principal Investigator: “The Effect of BOTOX<sup>®</sup> (Botulinum Toxin A) for the Treatment of Episodic Migraine Headaches in Patients who Demonstrate Poor Response to Triptans”
- 2007 Sub-Investigator: CFTY720D2302 “A 12-Month Double-Blind, Randomized Multi-Center, Active-Controlled, Parallel-Group Study Comparing the Efficacy and Safety of 0.5 mg and 1.25 Fingolimod (FTY720) Administered Orally Once Daily Versus Interferon  $\beta$ -1a (Avonex<sup>®</sup>) Administered I,N, Once Weekly in Patients with Relapsing/Remitting Multiple Sclerosis”.
- 2007 Sub-Investigator: 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 Sub-Investigator: TON/03/001 “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 Sub-Investigator: MPB8298-SP-03 “A Double-Blind, Placebo Controlled Multi-Centre Study to Evaluate the Efficacy and Safety of MBP8298 in subjects with Secondary Progressive Multiple Sclerosis.”
- 2007 Sub-Investigator: S308.3.008 “An extension of SLV308, A multicenter, 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 Sub-Investigator: NTS-INT06-007 “ A Double-Blind, Randomized, Controlled, Parallel Group, Multi-Center, Pivotal Study to Assess the Safety and Effectiveness of the Treatment of Acute Ischemic Stroke with the NeuroThera<sup>®</sup> Laser System within 24 Hours from Stroke Onset”.
- 2008 Sub-Investigator: 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  $\epsilon$ 4 Non- Carriers (301) or Carriers (302)”
- 2008 Sub-Investigator: P04737 “A multicenter, Randomized, Double-Blind, Placebo Controlled Study to Evaluate the Safety and Efficacy of SCH 530348 in Addition to Standard of Care in Subjects with a history of Atherosclerotic Disease: Thrombin Receptor Antagonist in Secondary Prevention of Atherothrombotic Ischemic Events”
- 2008 Sub-Investigator: ACT 10573 “A Double Blind, Placebo-Controlled, Randomized Crossover, Activity Study of Single Doses of 50 mg and 400 mg Nerispiridine on Visual Function in Patients with Multiple Sclerosis.”

- 2009 Principal Investigator: NXN-188 “ 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 Sub-Investigator: 28821: ORACLE MS Trial: “ A phase III, randomized, double-blind, placebo-controlled, multi-center clinical trial of oral cladribine in subjects with a first clinical event at high risk of converting to MS”
- 2009 Principle Investigator BTX0805: A randomized double-blind placebo controlled multi-center study to evaluate the safety and efficacy of Botulinum Neurotoxin Type A in the treatment of Forward Head Posture with associated Chronic Tension type Headache using novel fixed site injection paradigm.
- 2009 Principle Investigator NXN-188: 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 Sub-Investigator: DRI 6789: “A 14-Week, Randomized, Double-Blind, Placebo-Controlled, Parallel Group Study to Evaluate the Efficacy, Safety, and Tolerability of Nerispiridine 50 mg, 100 mg, and 200 mg in Patients with Multiple Sclerosis”.
- 2009 Sub-Investigator: 29652: “A 12-Week, Phase IIIb, Open-Label, Single-Arm, Multicenter Trial to Evaluate Ease of use of an Electronic Auto-injector (RebiSmart™) for Self-Injection in Subjects with Relapsing Multiple Sclerosis (RMS) treated with Rebif® 44mcg Subcutaneously three times a week.”
- 2009 Sub-Investigator: ELN 115727-351 “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 CENA: A 24 week, prospective, randomized, parallel-group, double-blind, multi-center study comparing the effects of rivastigmine patch 15cm2 vs. rivastigmine patch 5cm2 on activities of daily living and cognition in patients with severe dementia of the Alzheimers type
- 2009 NXN-188: A phase 2 Study of the safety amd Effectiveness of a Single Oral Dose of NXN-188 for the Treatment of Moderate to Severe Migraine Headache with Aura.
- 2009- Present 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
- 2010 FHP: “A Randomized Double-Blind Placebo Controlled Multi-Center Study to Evaluate the 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 site Injection Paradigm.”  
Investigator
- 2010 TIMI: A Multicenter, Randomized, Double-Blind, Placebo Controlled Study to Evaluate the Safety and Efficacy of SCH 530348 in Addition to Standard of Care in Subjects with a History of Atherosclerotic Disease: Thrombin Receptor Antagonist in Secondary Prevention of

Atherothrombotic Ischemic Events.

2010

7.3.004 “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.