

Curriculum Vitae

Thomas Merrill Shiovitz, M.D.

CTSdatabase, LLC

9777 Wilshire Blvd. Suite 1011 Beverly Hills, CA 90212 Tel 855.827.2873 Fax 818.986.9716

California Neuroscience Research 4835 Van Nuys Blvd., Ste. 104 Sherman Oaks, CA 91403 Tel 818.990.2671 Fax 818.986.9716

Positions Held, Certifications and Education

Professional Experience

2011 to Present President, CTSdatabase, LLC Founder of and overall responsibility for a clinical trial subject registry designed to provide sponsors and sites with information about potential subjects' current and previous study participation. 2002 to Present: Director, California Neuroscience Research Medical Group, Inc. Ultimate responsibility for all operations of CNS clinical trial site in Sherman Oaks, CA. President, Principal Investigator and research psychiatrist. Research consultation to pharmaceutical sponsors in CNS trial design and execution 2000 to 2002 President, Investigative Sites, Ingenix Pharmaceutical Services. Beverly Hills, California Ultimate responsibility for all operations of California Clinical Trials in Beverly Hills, CA and International Clinical Trials in London. Report directly to President and CEO. 1995 to 2002 **Medical Director** California Clinical Trials Medical Group Beverly Hills, California 1995 to 2000 **Medical Director** International Clinical Trials London, England 1993 to 2002 Research Psychiatrist California Clinical Trials Medical Group Beverly Hills, California 1988 to Present Assistant Clinical Professor in Psychiatry University of California, Los Angeles School of Medicine Los Angeles, California

1987 to Present **Psychiatrist**

> Private Practice in Adult Psychiatry, Psychotherapy and Psychopharmacology

Beverly Hills, California

1987 to 1994 Group Leader

Housestaff Assistance Program Cedars-Sinai Medical Center Los Angeles, California

1987 to 1993 Consulting Psychiatrist

Hillview Mental Health Center Lakeview Terrace, California

Licensure Licensed Physician and Surgeon

State of California, License # G53155

Certifications American Board of Psychiatry and Neurology

Diplomate in Psychiatry, June, 1989

American Board of Psychiatry and Neurology

Added Qualifications in Geriatric Psychiatry, November, 1996

Recertified, March, 2006

Hospital Affiliations Cedars-Sinai Medical Center

Los Angeles, California

Psychiatric Attending Physician (Emeritus)

Sherman Oaks Hospital and Health Center

Sherman Oaks, California Psychiatric Attending Physician

Memberships/Awards:

American Psychiatric Association, Member

Southern California Psychiatric Society, Member

American Society of Clinical Psychopharmacology, Member

American Association of Geriatric Psychiatry, Member

International Society for CNS Clinical Trials and Methodology, Member

Accreditation in Continuing Medical Education, California Medical Association 1996-2002 (Director of Medical Education, California Clinical Trials)

Leo Rigler Award, Outstanding Psychiatric Resident Cedars-Sinai Medical Center Los Angeles, California, 1987

Education

• 1986 to 1987 Chief Resident

Cedars-Sinai Medical Center Department of Psychiatry Los Angeles, California

1984 to 1986 Psychiatric Resident

Cedars-Sinai Medical Center Los Angeles, California

1983 to 1984 <u>Psychiatric Intern</u>

UCLA/Sepulveda V.A. Medical Center

North Hills, California

1983 Doctor of Medicine

University of Michigan Medical School

Ann Arbor, Michigan

1978 <u>Bachelor of Science, Biology</u>

University of Michigan

College of Literature, Science and the Arts

Ann Arbor, Michigan

Research

2002 to Present Director, Principal Investigator

California Neuroscience Research

Sherman Oaks, California

Founder and Director of a leading CNS clinical trial site specializing in studies of Alzheimer's Disease, Anxiety, Depression, Migraine & Insomnia

• 1995 to 2002 Medical Director

California Clinical Trials Medical Group

Beverly Hills, California

Assure the safe, ethical and cost-efficient completion of more than one hundred clinical trials through direct supervision of all research physicians and pharmacologists. Oversight of inpatient, outpatient, regulatory and quality assurance departments. Assist pharmaceutical sponsors in protocol design and clinical trial

program development

• 1995 to 2000 Medical Director

International Clinical Trials

London, England

Responsible for the conduct of all research (Phase I, Bridging, Phase II and Phase III) through the supervision of the Director and Medical Affairs Director of International Clinical Trials.

Curriculum Vitae Thomas M. Shiovitz Page **4** of **7**

Investigator on well over 100 Phase I, II and III clinical trials of medications for most psychiatric and neurologic disorders. Specialty in studies in depression, anxiety, migraine, Alzheimer's Disease, Schizophrenia and other indications (See Addendum for Principal Investigator Experience)

1978 to 1979 Research Assistant
 University of Michigan Hospital
 Department of Anesthesiology
 Ann Arbor, Michigan

In vivo research on platelet function.

Scholarly Publications/Presentations:

- 1. **Shiovitz TM**, Greenberg W, Chen W, et al. A Randomized, Double-Blind, Placebo-Controlled Trial of the Efficacy and Safety of Levomilacipran ER 40-120 mg/day for Prevention of Relapse in Patients with Major Depressive Disorder. Innov Clin Neurosci. 2014; 11 (1-2): 10-22.
- 2. **Shiovitz TM**, Zarrow ME, Mangano TC. How Duplicate Subjects Impact Clinical Trial Data: Under-compliant, Over-responding and Statistically Overlooked. Poster. ISCTM Annual Meeting, Feb 2014, Washington, DC
- 3. **Shiovitz TM,** Gevorgyan L, Shiovitz ZW, Zarrow, ME. How Far Are Duplicate Subjects Willing to Go? Changing Indications and Identifiers in Order to Participate in Studies at Distant Sites. Poster. ACNP Annual Meeting, Dec 2013, Hollywood, FL.
- 4. **Shiovitz TM**, Wilcox CS, Gevorgyan L, Mehra V, Mangano TC. Using a Subject Registry to Create a Duplicate-Free Corridor for Conducting Clinical Trials. Poster, CNS Summit, Nov 2013, Boca Raton, FL.
- 5. **Shiovitz TM**, Gevorgyan I, Mangano T. Subject Registries Reduce Duplicate Subjects Entering CNS Studies. Poster, NCDEU Annual Meeting, Hollywood, FL, May, 2013
- 6. **Shiovitz TM**, Manlosa NB, Gevorgyan I, Zarrow ME, Wilcox CS. Characteristics of Duplicate Subjects in a Clinical Trial Subject Registry. Poster, NCDEU Annual Meeting, Hollywood, FL, May, 2013
- 7. **Shiovitz TM**, Wilcox CS, Gevorgyan I, Shawkat A. CNS Sites Cooperate to Detect Duplicate Subjects with a Clinical Trial Subject Registry Innov Clin Neurosci 2013;10(2):17-21
- 8. Coric V, van Dyck CH, et al. (**Shiovitz, TM co-author**). Safety and Tolerability of the Gamma Secretase Inhibitor Avagacestat in a Phase 2 Study in Mild-to-Moderate Alzheimer's Disease. Arch Neurol, 2012; 69(11):1430-1440
- 9. **Shiovitz TM**, Bose A, Greenberg W, et al. The Efficacy and Safety of Levomilacipran SR in the Prevention of Relapse in Major Depressive Disorder; Results from a Phase III Clinical Trial. Poster. 2012 Psych and Mental Health Congress, San Diego, Nov 2012

Curriculum Vitae Thomas M. Shiovitz Page **5** of **7**

- 10. **Shiovitz TM**, Wilcox CS, Gevorgyan L, et al. CNS Sites Cooperate to Detect Duplicate Subjects with a Clinical Trial Subject Registry. Poster. CNS Summit, Boca Raton, Nov 2012
- 11. **Shiovitz TM**, Zarrow ME, Shiovitz AM, Bystritsky A. Failure rates and "Professional Subjects" in Clinical Trials of Major Depressive Disorder. Letter. J Clin Psychiatry 72:9 Sept 2011
- 12. Rickels K, **Shiovitz T**, Ramey TS, et. al. Adjunctive Therapy with Pregabalin in Generalized Anxiety Disorder Patients with Partial Response to SSRI or SNRI treatment. Accepted, Inter Clin Psychopharmacol, Jan, 2012
- 13. **Shiovitz TM**, Zarrow ME, Sambunaris A, Gevorgyan, L. Subjects in CNS Clinical Trials Poorly Reflect Patient Population. Poster. CNS Summit, Nov 2011
- 14. Miceli JJ, Tensfeldt TG, **Shiovitz T**, et. al. Effects of Oral Ziprasidone and Oral Haloperidol on QTc interval in patients with Schizophrenia or Schizoaffective disorder. Pharmacotherapy 2010 Feb; 30(2):127-35
- 15. Mohs RC, **Shiovitz T**, et al. Atomoxetine Augmentation of Cholinesterase Inhibitor Therapy in Patients with Alzheimer's Disease. Am J Geriatr Psychiatry 2009; 17(9): 752-759
- 16. **Shiovitz TM**, Song JL, et al. Extreme Creatine Phosphokinase Elevation in a 20 Yr-Old Man Participating in a Clinical Trial of Major Depressive Disorder. Letter. J Clin Psychiatry 69:11,1832-34, 2008
- 17. Scharre DW, **Shiovitz, T**, Zhu Y, Amantniek J. One-week Dose Titration Schedule of Extended-Release Galantamine in Patients with Alzheimer's Disease. Alzheimer's &Dementia 4:1, 30-37, 2008
- 18. Harrigan EP et al (**Shiovitz, TM co-author**). A Randomized Evaluation of the Effects of Six Antipsychotic Agents on QTc, in the Absence and Presence of Metabolic Inhibition. J Clin Psychopharmacol 24:1, 62-69, 2004
- 19. Potkin SG, **Shiovitz TM**, Wolfgang CD. Safety and Efficacy of 2 Iloperidone Dose Titration Schedules for the Treatment of Schizophrenia: A Haloperidol-Controlled Study. Submitted, 2007
- 20. Jhee SS et al (**Shiovitz, TM** co-author). First Clinical Evaluation of Ganstigmine in Patients with Probable Alzheimer's Disease. Clin Neuropharmacol. 2003; 26(3) 164-169
- Schneider LS et al (Shiovitz TM co-author) An Eight-Week, Multicenter, Parallel-group, Double-Blind, Placebocontrolled Study of Sertraline in Elderly Outpatients with Major Depression. Am J Psychiatry 160:7, 1277-1285, July 2003
- 22. Sramek JJ, Cutler NR, **Shiovitz, TM**. Short-term The Effect of Antipsychotics on Plasma Lipids. Letter. J Clin Psychopharmacol 23(6):679-680, 2003
- 23. Jhee SS, Kim E, **Shiovitz T** et al. Single dose escalation study of PPI-1019, a ß-Amyloid Aggregation Inhibitor. Poster. NCDEU, Boca Raton, FL May 2003
- 24. Miceli JJ, **Shiovitz TM**, Swift RH, Anziano RJ. Effects of Oral Ziprasidone and Haloperidol on QTc at Clinical and High Doses. Poster. Presented International Conference on Schizophrenia Research, April, 2003
- 25. Jhee SS (**Shiovitz TM** co-author). Multiple-dose Safety and Tolerability of LY 450108 and LY451395 in Patient's with Probable Alzheimer's Disease. Presented (Dr Jhee), Society for Neuroscience, Orlando, November, 2002

Curriculum Vitae Thomas M. Shiovitz Page 6 of 7

- 26. Frackiewicz EJ, **Shiovitz TM**, Jhee SS. Ethnicity in Drug Development and Therapeutics. London, Greenwich Medical Media, 2002. **Book**
- 27. Jhee, SS et al (**Shiovitz TM** co-author). LY 451395 Cerebrospinal Fluid Phamacokinetics in Healthy Human Subjects. J Clin Pharmacol 2002: 42 (9), 1067
- 28. **Shiovitz T**, Monici P, Pietra C, Fabbri L, Piccinno A, Jhee SS, Zarotsky V, Tan E. A Double-Blind, Placebo-Controlled Evaluation of the Safety and Tolerability of Increasing Doses of CHF 2819.01 (Ganstigmine) in Patients With Probable Alzheimer's Disease. 7th International Geneva/Springfield Symposium on Advances in Alzheimer Therapy. Geneva, April, 2002.
- 29. Hossain M, Jhee SS, **Shiovitz TM**, et al. Estimation of the Absolute Bioavailability of Rivastigmine in Patients with Mild to Moderate Dementia of the Alzheimer's Type. Clin Pharmacokinet 2002: 41(3) 225-234
- 30. **Shiovitz, TM**, et al. Safety, Tolerability, Pharmacokinetics and Pharmacodynamics of BAY 36-1677 (IL-4 Selective Agonist) in Patients with Multiple Sclerosis. poster, CINP 2002 Congress, Montreal, Canada, June, 2002.
- 31. Jhee SS, **Shiovitz TM**, et al. Safety and Tolerability of Serial Cerebrospinal Fluid (CSF) Collections During PK/PD Studies: 5 Years Experience Abstract, presented 2002.
- 32. Frackiewicz EJ, Jhee SS, **Shiovitz T,** Webster J, Topham C, Dockens RC, Whigan D, Salazar DE, Cutler, NR Brasofensine Treatment for Parkinson's Disease in Combination with Levodopa/Carbidopa. Ann Pharmacother 2002 February, Volume 36.
- 33. Jhee SS, **Shiovitz, T,** Hartman RD, Messina J, Cutler NR, Anand, R, Sramek J. Centrally Acting Antiemetics Mitigate Nausea And Vomiting in AD Patients Receiving Rivastigmine. Letter. Clinical Neuropharmacology, March/April 2002, Vol 25, Issue 2.
- 34. Miceli, JJ, Anziano RJ, Swift RH, **Shiovitz, TM.** IM Ziprasidone and IM Haloperidol have comparable effects on QT_c at Cmax. Poster. American Psychiatric Association, Philadelphia, May 2002
- 35. Jhee SS, **Shiovitz TM**, et al. A Double-Blind, Placebo-Controlled Pharmacokinetic (PK), Pharmacodynamic (PD) and Safety of Celecoxib Treatment for Four Weeks in Patients with Alzheimer's Disease (AD) Abstract
- 36. Salazar DE et al **(Shiovitz TM co-author)**. Pharmacokinetics and Tolerability of Buspirone during oral Administration in Children and Adolescents with Anxiety Disorder and Normal Healthy Adults. J Clin Pharmacol December, 2001;41:1351-1358.
- 37. Jhee, SS, **Shiovitz, TM**, Crawford, AW, Cutler, NR. Clinical Pharmacokinetics of the Triptan Anti-Migraine Agents: A Comparative Review. Clin Pharmacokin. February 2001.
- 38. Jhee, SS, **Shiovitz, TM**, Crawford, A, Cutler, NR, "β-Amyloid Therapies in Alzheimer's Disease." Exp. Opin. Invest. Drugs (2001)10(4):593-605.
- 39. Frackiewicz, E, **Shiovitz, TM**, "Evaluation and Management of Premenstrual Syndrome and Premenstrual Dysphoric Disorder," J Am Pharm Assoc 2001 May-Jun; 41(3):437-47.
- 40. Jhee, SS, PharmD, **Shiovitz, TM, MD**, et al. GV196771 in the CSF of Healthy Subjects Following 300 mg Oral Dose Administered Once Daily for 7 Days. Poster, American Society for Clinical Pharmacology and Therapeutics, March 2001.
- 41. Pande, AC et al **(Shiovitz, TM co-author)**. Placebo-Controlled Study of Gabapentin Treatment of Panic Disorder. J Clin Psychopharmacol 2000 Aug; 20(4):467-71.

Curriculum Vitae Thomas M. Shiovitz Page **7** of **7**

- 42. Ascher J, et al **(Shiovitz TM co-author).** A Meta Analysis of Clinical Safety Data from Controlled Monotherapy Trials of Lamotrigine in Depression. Presented at American College of Neurophsychopharmacology, December 1999.
- 43. Sramek JJ, Anand R, et al (**Shiovitz, TM co-author).** A Bioequivalence Study of Brand and Generic Clozapine in Patients with Schizophrenia: Pharmacokinetic and Safety Findings. ClinDrugInvest 17(1): 51-58, 1999.
- 44. Cutler NR, Friday G, Haskell L, Jhee SS, Knuttsson M, Martin T, Ohlman S, **Shiovitz TM,** Sramek JJ, NXX-066 in Alzheimer Patients: A Bridging Study. Abstract. American Association of Geriatric Psychiatry New Orleans, Louisiana, March 16, 1999.
- 45. Apter J, et al **(Shiovitz, TM co-author)** Lamotrigine: Evidence for Antidepressant Activity in Bipolar Disorder: Abstract. Presented at American College of Neuropsychopharmacology, December 1998.
- 46. **Shiovitz, TM**, et al: "The Safety and Tolerability of Sertindole in Elderly Patients with Dementia," Poster, American Association of Geriatric Psychiatry, Orlando, Florida, February .1997.
- 47. Cutler, NR et al, (**Shiovitz TM. co-author).** A Bridging Study of Once-Daily Iloperidone in Schizophrenic Patients Poster 1996
- 48. **Shiovitz TM,** Welke TL, Tigel PD, Anand R, Hartman RD, Sramek JJ, Kurtz NM, Cutler NR. Cholinergic rebound and rapid onset psychosis following abrupt Clozapine withdrawal. Schizophr Bull. 1996; 22(4):591-5.