

Edward Lewis Tobinick, MD

Curriculum Vitae August 2013

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Education

1969-73 B.A. Magna Cum Laude, with honors in Biology, Phi Beta Kappa, Brandeis University.
1973-1977 MD, UCSD School of Medicine
1977 Subinternship in Neurology, Memorial Sloan Kettering - New York Hospital Neurology Program (one month rotation)
1977-1978 Internship in Internal Medicine, UCLA
1978-82 UCLA Internal Medicine & Dermatology Residencies
1980 Diplomate, American Board of Internal Medicine
1982 Diplomate, American Board of Dermatology

Academic and Journal Appointments

1984-June 2011 Assistant Clinical Professor of Medicine, UCLA School of Medicine
2008-2010 Editorial Board, *Journal of Neuroinflammation*
2009-2012: Invited *ad hoc* reviewer for the following journals: *Brain Research*, *CNS Drugs*, *Current Alzheimer Research*, *Experimental Neurology*, *Future Neurology*, *Journal of Neurochemistry*, *Journal of Neuroimmunology*, *Neuroscience and Pharmaceutical Medicine*

Specialty Board Certifications/ Licensure

1980-present (2013) Certified, American Board of Internal Medicine
1982-present (2013) Certified, American Board of Dermatology
Active medical licenses: California, Florida

Professional Societies

1984 - 2008: Fellow of the American Academy of Dermatology.
1998 - 2010: ASLMS.
2010-2012: American Academy of Pain Medicine.

Honors/Certificates

National Honor Society, 1969
Phi Beta Kappa, Brandeis University, 1973
UCLA Department of Medicine Five Year Teaching Certificate, 1987
UCLA Department of Medicine Ten Year Teaching Certificate, 1992
Venice Family Clinic Certificate of Appreciation for Volunteer Teaching, 1992
Venice Family Clinic, Rossman/Davidson Clinical Teaching/Service Award, 2005

Publications - [Neurology](#)

Selective TNF inhibition for chronic stroke and traumatic brain injury: an observational study involving 629 consecutive patients treated with perispinal etanercept. Edward Tobinick, Nancy Kim, et. al. *CNS Drugs*. 2012 Dec; 26(12):1051-70. PMID:23100196.

Deciphering the physiology underlying the rapid clinical effects of perispinal etanercept in Alzheimer's disease. Edward Tobinick. *Current Alzheimer Research*. 2012 Jan; 9(1):99-109. PMID:22191562.

Rapid improvement of chronic stroke deficits after perispinal etanercept: three consecutive cases. Edward Tobinick. *CNS Drugs*. 2011 Feb; 25(2):145-155. PMID:212547090.

Perispinal etanercept: a new therapeutic paradigm in neurology. Edward Tobinick. *Expert Review of Neurotherapeutics*. 2010 June; 10(6):985-1002. PMID:20518613.

Tumor necrosis factor modulation for treatment of Alzheimer's disease: rationale and current evidence. Edward Tobinick. *CNS Drugs*. 2009 Sept; 23(9):713-25. PMID:19689163.

Perispinal etanercept for neuroinflammatory disorders. Edward Tobinick. *Drug Discovery Today*, 2009 Feb, 14(3-4): 168-77.

Rapid intracerebroventricular delivery of 64-Cu-DOTA-etanercept after peripheral administration demonstrated by PET imaging. Edward Tobinick, K. Chen, X. Chen. *BMC Research Notes*, 2009 Feb 27, 2:28.

Rapid improvement in verbal fluency and aphasia following perispinal etanercept in Alzheimer's disease. Edward Tobinick, Hyman Gross, *BMC Neurology*, 2008, 8(1): 27.

Perispinal etanercept produces rapid improvement in primary progressive aphasia: Identification of a novel, rapidly reversible TNF-mediated pathophysiologic mechanism. Edward Tobinick. *Medscape J Med*, 2008 10(6): 135.

Rapid cognitive improvement in Alzheimer's disease following perispinal etanercept administration. Edward Tobinick, Hyman Gross. *J Neuroinflammation*. 2008 Jan 9;5:2.

Publications - [Neurology, cont.](#)

A critique of intradiscal administration for treatment of radiculopathy. Edward Tobinick. *Anesthesiology*, 2008 108(2): 334; author reply 335.

New horizons in the treatment of Alzheimer's disease: Immunotherapeutics. Edward Tobinick, *U.S. Neurology*, 2008; 4(1): 34-36.

Perispinal etanercept for treatment of Alzheimer's disease. Edward Tobinick, *Current Alzheimer Research*, 2007 4(5): 550-2.

Resolution of chronic pain and fingertip ulceration due to hand-arm vibration syndrome following combination pharmacotherapy. Buell, C., E. Tobinick, K. Lamp, H. *Arch Derm*, 2007 143 (10): p. 1343-4.

Paradigm Shift: Excess TNF-alpha emerges as a key therapeutic target in Alzheimer's disease. Edward Tobinick, *Medscape General Medicine*, 2007 9(3): 17.

TNF Modulation for Treatment of Alzheimer's Disease: A Six Month Pilot Study. Edward Tobinick MD, H. Gross MD, A. Weinberger MD, H. Cohen MD FRCP, *Medscape General Medicine*, 2006 April; 8(2): 25.

Spinal delivery of p38 and TNF-alpha inhibitors. Edward Tobinick, MD, *PLoS Medicine*, 2006; 3(11): e511.

Efficacy of etanercept delivered by perispinal administration for chronic back and/or neck disc-related pain: a study of clinical observations in 143 patients. Edward Tobinick, MD, et. al. *Current Medical Research and Opinion*, 2004 20(7): 1075-85.

Targeted etanercept for discogenic neck pain: uncontrolled, open-label results in two adults. Edward Tobinick, *Clinical Therapeutics*, 2003 Apr 1; 25: 1211-1218.

Perispinal TNF-alpha inhibition for discogenic pain. Edward Tobinick et. al, *Swiss Med W.* 2003 Mar;133(11-12):170-7.

Abstracts & Presentations - [Neurology](#)

Perispinal TNF-alpha inhibition for discogenic pain. Invited presentation by Edward Tobinick MD at the 2nd Annual Restauracion Neurologica 2004 International Conference, Havana, Cuba, February 27, 2004.

TNF Modulation for Treatment of Alzheimer's Disease: A Six Month Pilot Study. Edward Tobinick MD, H. Gross MD, A. Weinberger MD, H. Cohen MD FRCP. Accepted abstract for the 10th International Conference on Alzheimer's Disease and Related Disorders, Madrid, Spain, July 19, 2006.

TNF Modulation for Treatment of Alzheimer's Disease: Effects on Verbal Function. Edward Tobinick MD, David Shirinyan, H. Gross. Days of Molecular Medicine Conference, Karolinska Institutet, Stockholm, Sweden, May 27, 2006.

Perispinal etanercept for treatment of Alzheimer's Disease. Edward Tobinick MD. Invited presentation at the 7th International Conference on Alzheimer's Disease Drug Discovery, NYC, October 12, 2006, published in *Alzheimer's and Dementia: the Journal of the Alzheimer's Association*, 2 (3), p. S721-782, July 2006.

Perispinal etanercept for treatment of Alzheimer's Disease. Edward Tobinick MD. Invited presentation at the Best Practices in the Continuum of Care: Advances in Alzheimer's Disease Management conference for University of Arkansas for Medical Sciences, Little Rock, Arkansas, April 16, 2008.

Perispinal etanercept produces rapid improvement in primary progressive aphasia. Abstract presented at the 11th International Conference on Alzheimer's Disease, Chicago, Illinois, July 30, 2008, published in *Alzheimer's and Dementia: the Journal of the Alzheimer's Association*, 4 (4) T1-880, July 2008.

Repurposing of Enbrel for Alzheimer's Disease. Keynote presentation by Edward Tobinick MD Third Annual Drug Repositioning Summit, Boston, Massachusetts, October 6-7, 2008.

Perispinal etanercept for Alzheimer's Disease. Invited presentation at Restauracion Neurologica 2009 International Conference, Havana, Cuba, March 11, 2009.

TNF antagonists for neurological disorders: from concept to the clinic. Presentation at GTC bio's 5th Modern Drug Discovery & Development Conference, October 14-16, 2009, San Diego, California.

Abstracts & Presentations - [Neurology](#), [continued](#)

TNF modulation for treatment of Alzheimer's disease.

Presentation by Edward Tobinick MD at the inaugural Targeting Alzheimer's with Novel Therapeutics Conference at the World Pharmaceutical Congress, Philadelphia, Pennsylvania, June 11, 2009.

Neuroinflammation as a new therapeutic target in neurology.

Presentation by Edward Tobinick MD at University Hospital, Tamarac, Florida, Medical Staff CME Lecture, November 10, 2011.

Publication - [Anatomy/Physiology](#)

The Cerebrospinal Venous System: Anatomy, Physiology, and Clinical Implications. Edward Tobinick, Medscape General Medicine, 2006 February; 8(1): 53.

Publication - [Cardiology](#)

Right Ventricular Ejection Fraction in Patients with Acute Anterior and Inferior Myocardial Infarction Assessed by Radionuclide Angiography, Tobinick E, Schelbert H, Henning H, et. al. Circulation 57: 1078-1084, June 1978.

Publication - [Dermatology](#)

Basal Cell Carcinoma. Edward Tobinick M.D., American Family Physician, 36:(3)219-224, September, 1987.

Publication - [Immunology/Virology](#)

TNF-alpha inhibition for potential therapeutic modulation of SARS coronavirus infection. Tobinick E, Curr Med Res Opin, 20(1) 39-40, Jan. 2004.

Publication - [Oncology/Neurology](#)

Targeted Etanercept for Treatment-Refractory Pain Due to Bone Metastasis: Two Case Reports. Edward Tobinick, MD, Clinical Therapeutics, 2003 August; 25: 2279-2288.

Publication - [Pharmacology](#)

The value of drug repositioning in the current pharmaceutical market. Edward Tobinick, Drug News and Perspectives, 2009 Mar; 22(2): 119-125.

Publication - [Textbook](#)

Skin Surgery, A Practical Guide Usatine R, Tobinick E, Moy R, Siegel D. Mosby 1998, 337 pp.

U.S. patents issued- [Neurology](#)

6,015,557 **Tumor necrosis factor antagonists for the treatment of neurological disorders.** Issued January 18, 2000; filed March 23, 1999.

6,177,077 B1 **TNF inhibitors for the treatment of neurological disorders.** Issued January 23, 2001; filed December 31, 1999.

6,379,666 B1 **TNF inhibitors for the treatment of neurological, retinal, and muscular disorders** Issued April 30, 2002; filed December 11 2000.

6,419,934 B1 **TNF modulators for treating neurological disorders associated with viral infection.** Issued July 16, 2002; filed September 5, 2000.

6,423,321 B2 **Cytokine antagonists for the treatment of sensorineural hearing loss.** Issued July 23, 2002; filed December 27, 2000.

6,471,961 **Interleukin antagonists for the treatment of neurological, retinal and muscular disorders.** Issued October 29, 2002; filed May 2, 2000.

6,537,549 **Cytokine antagonists for the treatment of localized disorders.** Issued March 25, 2003, filed April 25, 2001.

6,623,736 **Interleukin antagonists for the treatment of neurological, retinal and muscular disorders.** Issued September 23, 2003.

6,982,089 **Cytokine antagonists for neurological and neuropsychiatric disorders.** Issued January 3, 2006.

7,214,658 **Method of delivering a TNF antagonist to the brain of a human by perispinal administration without direct intrathecal injection.** Issued May 8, 2007.

7,629,311: **Methods to facilitate transmission of large molecules across the blood-brain, blood-eye, and blood-nerve barriers.** Issued Dec 8, 2009.

8,119,127: **Cytokine antagonists for neurological and neuropsychiatric disorders.** Issued Feb 21, 2012.

8,236,306: **Methods to facilitate transmission of large molecules across the blood-brain, blood-eye, and blood-nerve barriers.** Issued Aug 7, 2012.

8,349,323: **Cytokine antagonists for neurological and neuropsychiatric disorders.** Issued January 8, 2013.

Note: All issued U.S. patents are assigned to TACT IP, LLC. Additional U.S. and International patents pending.

Foreign patents

758,523 (Australia) **TNF antagonists for the treatment of neurological disorders**. Issued July 2003.
Multiple additional foreign patents pending.

U.S. patent issued- **Ophthalmology**

6,428,787 B1 **TNF inhibitors for the treatment of retinal disorders**. Issued August 6, 2002; filed September 19, 2000.

U.S. patents issued- **Laser**

6,080,147; 6,149,645; 6,165,171; 6,168,589; 6,217,572; 6,579,283; 6,595,985.

Textbooks citing publications by Edward Tobinick

1. Ooi, L. and e. al., *New Drugs Under Development for Alzheimer's Disease*, in *Advances in Alzheimer's Disease Management*, S. Gauthier and P. Rosa-Neto, Editors. 2012. p. 58-67.
2. Delrieu, J., A. Piau, and B. Vellas, *Drug Development and Alzheimer's Disease*, in *Pathy's Principles and Practice of Geriatric Medicine*, A.J. Sinclair, J.E. Morley, and B. Vellas, Editors. 2012, Wiley-Blackwell. p. 923-941.
3. Williams, M. and J.T. Coyle, *Chapter 7: Historical perspectives on the discovery and development of drugs to treat neurological disorders*, in *Translational Neuroscience: Applications in Psychiatry, Neurology, and Neurodevelopmental Disorders*, J.E. Barrett, J.T. Coyle, and M. Williams, Editors. 2011, Cambridge University Press: New York.
4. Budson, A.E. and N.W. Kowall, *Chapter 10: Towards an Effective Therapy for AD*, in *The Handbook of Alzheimer's Disease and Other Dementias*, A.E. Budson and N.W. Kowall, Editors. 2011, Wiley-Blackwell: Malden, Massachusetts.
5. Labbate, L.A., *Drugs for the Treatment of Dementia*, in *Handbook of Psychiatric Drug Therapy, 6th Edition*, L.A. Labbate, Editor. 2010, Wolters Kluwer Health/Lippincott Williams & Wilkins: Philadelphia. p. 254-264.
6. Alamin, T.F. and V. Agarwal, *Chapter 5: The Mechanisms of Pain from Intervertebral Discs*, in *The Lumbar Intervertebral Disc*, F.M. Phillips and C. Laurysen, Editors. 2010, Thieme Medical Publishers, Inc.
7. Bruni, J.E. and D.G. Montemurro, *Chapter 9: The Spinal Cord*, in *Human Neuroanatomy: A Text, Brain Atlas, and Laboratory Dissection Guide*, J.E. Bruni and D.G. Montemurro, Editors. 2009, Oxford University Press, Inc.: New York, N.Y. p. 162-183.
8. Bruni, J.E. and D.G. Montemurro, *Chapter 4: Blood Supply of the Nervous System*, in *Human Neuroanatomy: A Text, Brain Atlas, and Laboratory Dissection Guide*, J.E. Bruni and D.G. Montemurro, Editors. 2009, Oxford University Press, Inc.: New York, N.Y. p. 51-64.
9. Tansey, M.G. and T. Wyss-Coray, *Cytokines in CNS Inflammation and Disease*, in *Central Nervous System Diseases and Inflammation*, T.E. Lane, et al., Editors. 2008, Springer: New York, N.Y. p. 59-106.
10. Ignatowski, T.A. and R.N. Spengler, II. *Cytokines in the Brain, B. Cytokines in Brain Physiology: Cytokines in Synaptic Function*, in *NeuroImmune Biology, Vol. 6: Cytokines and the Brain*, C. Phelps and E. Korneva, Editors. 2008, Elsevier: Amsterdam, The Netherlands. p. 111-144.
11. Van Eldik, L.J., et al., *Glia Proinflammatory Cytokine Upregulation as a Therapeutic Target for Neurodegenerative Disease: Function-Based and Target-Based Discovery Approaches*, in *Neuroinflammation in Neuronal Death and Repair*, G. Bagetta, Editor. 2007, Elsevier. p. 278-297.
12. do Couto, F.S. and A. de Mendonca, *Chapter 11: Aging and Cognitive Decline: Neuroprotective Strategies*, in *Interaction Between Neurons and Glia in Aging and Disease*, J.O. Malva, Editor. 2007, Springer: New York, N.Y. p. 245-268.
13. DeWitte, M., et al., *Chapter 4: Tumor Necrosis Factor and Cancer*, in *Cytokines in the Genesis and Treatment of Cancer*, M.A. Caligiuri and M.T. Lotze, Editors. 2007, Humana Press: Totowa, N.J. p. 71-90.

Selected scientific articles in 2012-2013 citing publications by Edward Tobinick

1. Zuliani, G., et al., *Subsyndromal Delirium and Its Determinants in Elderly Patients Hospitalized for Acute Medical Illness*. J Gerontol A Biol Sci Med Sci, 2013.
2. Wang, H.M., et al., *3-N-Butylphthalide (NBP) Attenuates the Amyloid-beta-Induced Inflammatory Responses in Cultured Astrocytes via the Nuclear Factor-kappaB Signaling Pathway*. Cell Physiol Biochem, 2013. **32**(1): p. 235-42.
3. Swardfager, W., et al., *Interleukin-17 in post-stroke neurodegeneration*. Neurosci Biobehav Rev, 2013. **37**(3): p. 436-447.
4. Strong, C., et al., *Surgical treatment options and management strategies of metastatic renal cell carcinoma to the lumbar spinal nerve roots*. Journal of Clinical Neuroscience, 2013. **in press**(epub 6 August 2013).
5. Puri, A.S., et al., *Analysis of venous drainage in three patients with extradural spinal arteriovenous fistulae at the craniovertebral junction with potentially benign implication*. J Neurointerv Surg, 2013.
6. Novac, N., *Challenges and opportunities of drug repositioning*. Trends Pharmacol Sci, 2013. **34**(5): p. 267-72.
7. Liu, Q., et al., *Novel treatment of neuroinflammation against low back pain by soluble fullerol nanoparticles*. Spine (Phila Pa 1976), 2013. **38**(17): p. 1443-51.
8. Kheirandish-Gozal, L. and D. Gozal, *Genotype-phenotype interactions in pediatric obstructive sleep apnea*. Respir Physiol Neurobiol, 2013.
9. Gajewski, P.D., et al., *The functional tumor necrosis factor-alpha (308A/G) polymorphism modulates attentional selection in elderly individuals*. Neurobiol Aging, 2013.
10. Enciu, A.M., M. Gherghiceanu, and B.O. Popescu, *Triggers and effectors of oxidative stress at blood-brain barrier level: relevance for brain ageing and neurodegeneration*. Oxid Med Cell Longev, 2013. **2013**: p. 297512.
11. Elcioglu, H., et al., *Thalidomide attenuates learning and memory deficits induced by intracerebroventricular administration of streptozotocin in rats*. Biotech Histochem, 2013. **88**(3-4): p. 145-52.
12. Deumens, R., et al., *Prevention of chronic postoperative pain: cellular, molecular, and clinical insights for mechanism-based treatment approaches*. Prog Neurobiol, 2013. **104**: p. 1-37.
13. Cunningham, E.L. and A.P. Passmore, *Drug development in dementia*. Maturitas, 2013.
14. Crow, M., F. Denk, and S.B. McMahon, *Genes and epigenetic processes as prospective pain targets*. Genome Med, 2013. **5**(2): p. 12.
15. Chio, C.C., et al., *Etanercept attenuates traumatic brain injury in rats by reducing early microglial expression of tumor necrosis factor-alpha*. BMC Neuroscience, 2013. **14**: p. 33.

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Selected scientific articles in 2012-2013 citing publications by Edward Tobinick (continued)

16. Chengke, L., et al., *Effect of infliximab combined with methylprednisolone on expressions of NF-kappaB, TRADD, and FADD in rat acute spinal cord injury*. Spine (Phila Pa 1976), 2013. **38**(14): p. E861-9.
17. Borrelli, S., et al., *Long-lasting efficacy of the cognitive enhancer cytotoxic necrotizing factor 1*. Neuropharmacology, 2013. **64**: p. 74-80.
18. Bai, L., et al., *Elevated Plasma Levels of Soluble TNFRs and TACE Activity in Alzheimer's Disease Patients of Northern Han Chinese Descent*. Curr Alzheimer Res, 2013. **10**(1): p. 57-62.
19. Yoshiyama, Y., V.M. Lee, and J.Q. Trojanowski, *Therapeutic strategies for tau mediated neurodegeneration*. J Neurol Neurosurg Psychiatry, 2012.
20. Wilcock, D.M., *Neuroinflammation in the Aging Down Syndrome Brain; Lessons from Alzheimer's Disease*. Current Gerontology and Geriatrics Research, 2012. **2012**.
21. Tweedie, D., et al., *Tumor necrosis factor-alpha synthesis inhibitor 3,6'-dithiothalidomide attenuates markers of inflammation, Alzheimer pathology and behavioral deficits in animal models of neuroinflammation and Alzheimer's disease*. J Neuroinflammation, 2012. **9**: p. 106.
22. Stringer, M.D., et al., *The vertebral venous plexuses: the internal veins are muscular and external veins have valves*. Clin Anat, 2012. **25**(5): p. 609-18.
23. Steele, M.L. and S.R. Robinson, *Reactive astrocytes give neurons less support: implications for Alzheimer's disease*. Neurobiol Aging, 2012. **33**(2): p. 423 e1-13.
24. Santello, M. and A. Volterra, *TNF-alpha in synaptic function: switching gears*. Trends Neurosci, 2012. **35**(10): p. 638-47.
25. Raffaghello, L., G. Bianchi, and V. Pistoia, *Immunosuppressive treatments in acute myocardial infarction and stroke*. Curr Pharm Biotechnol, 2012. **13**(1): p. 59-67.
26. Ooi, L. and e. al., *New Drugs Under Development for Alzheimer's Disease*, in *Advances in Alzheimer's Disease Management*, S. Gauthier and P. Rosa-Neto, Editors. 2012. p. 58-67.
27. Montgomery, S.L. and W.J. Bowers, *Tumor necrosis factor-alpha and the roles it plays in homeostatic and degenerative processes within the central nervous system*. J Neuroimmune Pharmacol, 2012. **7**(1): p. 42-59.
28. Maudsley, S. and W. Chadwick, *Progressive and unconventional pharmacotherapeutic approaches to Alzheimer's disease therapy*. Curr Alzheimer Res, 2012. **9**(1): p. 1-4.

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Selected scientific articles in 2012-2013 citing publications by Edward Tobinick (continued)

29. Maccioni, R.B., et al., *In Search of Therapeutic Solutions for Alzheimer's Disease*. 2012.
30. Lauterbach, E.C., *Psychotropic Drug Effects on Gene Transcriptomics Relevant to Alzheimer Disease*. *Alzheimer Disease & Associated Disorders*, 2012. **26**(1): p. 1.
31. Jiang, T., J.T. Yu, and L. Tan, *Novel Disease-Modifying Therapies for Alzheimer's Disease*. *J Alzheimers Dis*, 2012.
32. Gabbita, S.P., et al., *Early intervention with a small molecule inhibitor for tumor necrosis factor-alpha prevents cognitive deficits in a triple transgenic mouse model of Alzheimer's disease*. *J Neuroinflammation*, 2012. **9**: p. 99.
33. Ferraccioli, G., et al., *Rheumatoid Arthritis and Alzheimer Disease: Possible Cellular and Molecular Links*. *J Gerontol Geriatric Res*, 2012. **1**: p. e104.
34. Elcioglu, H., et al., *Thalidomide attenuates learning and memory deficits induced by intracerebroventricular administration of streptozotocin in rats*. *Biotech Histochem*, 2012.
35. Delrieu, J., A. Piau, and B. Vellas, *Drug Development and Alzheimer's Disease*, in *Pathy's Principles and Practice of Geriatric Medicine*, A.J. Sinclair, J.E. Morley, and B. Vellas, Editors. 2012, Wiley-Blackwell. p. 923-941.
36. Dabus, G., et al., *Endovascular treatment of a bilateral dural carotid-cavernous fistula using an unusual unilateral approach through the basilar plexus*. *World Neurosurg*, 2012. **77**(1): p. 201 e5-8.
37. Clark, I., et al., *Tumor necrosis factor-induced cerebral insulin resistance in Alzheimer's disease links numerous treatment rationales*. *Pharmacol Rev*, 2012. **64**(4): p. 1004-26.
38. Clark, I., *New hope for survivors of stroke and traumatic brain injury*. *CNS Drugs*, 2012. **26**(12): p. 1071-2.
39. Butchart, J. and C. Holmes, *Systemic and Central Immunity in Alzheimer's Disease: Therapeutic Implications*. *CNS Neuroscience & Therapeutics*, 2012.
40. Bomfim, T.R., et al., *An anti-diabetes agent protects the mouse brain from defective insulin signaling caused by Alzheimer's disease-associated A-beta oligomers*. *The Journal of Clinical Investigation*, 2012. **122**(4): p. 1339.

The following are a selection of articles published prior to 2007 that cite articles authored by Dr. Tobinick:

- Anderson, G.M., M.T. Nakada, and M. DeWitte, *Tumor necrosis factor-alpha in the pathogenesis and treatment of cancer*. *Curr Opin Pharmacol*, 2004. **4**(4): p. 314-20.
- Aoki, Y., et al., *Distribution and immunocytochemical characterization of dorsal root ganglion neurons innervating the lumbar intervertebral disc in rats: a review*. *Life Sci*, 2004. **74**(21): p. 2627-42.
- Aoki, Y., et al., *Neuropathology of Discogenic Low Back Pain: A Review*. *The Internet Journal of Spine Surgery*, 2005. **2**(1).
- Bhargava, A., et al., *Injection Therapy for Lumbar Radiculopathy*. *Current Opinion in Orthopedics*, 2005. **16**: p. 152-157.
- Bianco, E., et al. *Linea guida: Appropriatezza della diagnosi e del trattamento chirurgico dell'ernia del disco lombare sintomatica*. in *Linea guida: Italy*. 2005. Italy: PNLG.
- Cohen, S.P., et al., *Lumbar discography: a comprehensive review of outcome studies, diagnostic accuracy, and principles*. *Reg Anesth Pain Med*, 2005. **30**(2): p. 163-83.
- Cole, P. and X. Rabassada, *The soluble tumor necrosis factor receptor etanercept: a new strategy for the treatment of autoimmune rheumatic disease*. *Drugs Today (Barc)*, 2004. **40**(4): p. 281-324.
- Furst, D.E., et al., *Updated consensus statement on biological agents for the treatment of rheumatic diseases, 2006*. *Ann Rheum Dis*, 2006. **65** Suppl 3: p. iii2-iii15.
- Hildebrandt, A., et al., *European guidelines for the management of chronic non-specific low back pain (Spanish version) (de la version espanola)*. On behalf of the COST B13 Working Group on Guidelines for Chronic Low Back Pain, 2005.
- Karppinen, J., et al., *Tumor necrosis factor-alpha monoclonal antibody, infliximab, used to manage severe sciatica*. *Spine*, 2003. **28**(8): p. 750-3; discussion 753-4.
- Korhonen, T., et al., *Efficacy of infliximab for disc herniation-induced sciatica: one-year follow-up*. *Spine*, 2004. **29**(19): p. 2115-9.
- Lai, S.T., *Treatment of severe acute respiratory syndrome*. *Eur J Clin Microbiol Infect Dis*, 2005. **24**(9): p. 583-91.
- Mulleman, D., et al., *Pathophysiology of disk-related low back pain and sciatica. II. Evidence supporting treatment with TNF-alpha antagonists*. *Joint Bone Spine*, 2006. **73**(3): p. 270-7.
- Myers, R.R., W.M. Campana, and V.I. Shubayev, *The role of neuroinflammation in neuropathic pain: mechanisms and therapeutic targets*. *Drug Discov Today*, 2006. **11**(1-2): p. 8-20.
- Olesen, J. and T.S. Jensen, *From basic pain mechanisms to headache*. *Frontiers in headache research*; v. 14. 2006, New York: Oxford University Press Inc.
- Oliveri, C. and R. Polosa, *Etanercept in chronic severe asthma*. *Thorax*, 2006. **61**(7): p. 640; author reply 640.
- Pasternack, F.R., L.P. Fox, and D.E. Engler, *Silicone granulomas treated with etanercept*. *Arch Dermatol*, 2005. **141**(1): p. 13-5.
- Pearce, J.M., *The craniospinal venous system*. *Eur Neurol*, 2006. **56**(2): p. 136-8.
- Quintao, N.L., et al., *Long-lasting neuropathic pain induced by brachial plexus injury in mice: Role triggered by the pro-inflammatory cytokine, tumour necrosis factor alpha*. *Neuropharmacology*, 2006. **50**(5): p. 614-20.
- Rosenberg, P., *Cytokine Inhibition for Treatment of Alzheimer's Disease*. *Medscape General Medicine: Neurology*, 2006. **8**(2).
- Scallon, B.J., et al., *A review of antibody therapeutics and antibody-related technologies for oncology*. *J Immunother*, 2006. **29**(4): p. 351-64.
- Scheinfeld, N., *The medical uses and side effects of etanercept with a focus on cutaneous disease*. *J Drugs Dermatol*, 2004. **3**(6): p. 653-9.
- Sommer, C. and M. Schafers, *Mechanisms of neuropathic pain: the role of cytokines*. *Drug Discovery Today: Disease Mechanisms*, 2004. **1**(4): p. 441-448.
- Tang, J. and R. Chan, *Severe acute respiratory syndrome(SARS) in intensive care units(ICUs): limiting the risk to healthcare workers*. *Current Anaesthesia & Critical Care*, 2004. **15**(3): p. 143-155.
- Wacnik, P.W., et al., *Nociceptive characteristics of tumor necrosis factor-alpha in naive and tumor-bearing mice*. *Neuroscience*, 2005. **132**(2): p. 479-91.
- Yaksh, L. and L. Sorkin, *Mechanisms of Neuropathic Pain*. *Current Medicinal Chemistry-Central Nervous System Agents*, 2005. **5**(2): p. 129-140.
- Yan, L., et al., *Therapeutic potential of cytokine and chemokine antagonists in cancer therapy*. *Eur J Cancer*, 2006. **42**(6): p.793-802.

The following are selected articles that cite the published articles of Dr. Tobinick regarding perispinal etanercept for Alzheimer's disease in 2008 and 2009:

1. *Perispinal administration of anti-TNF agent results in rapid cognitive improvement in AD.* Nature Clinical Practice Neurology, 2008. 5: p. 2.
2. Abdipranoto, A., et al., *The role of neurogenesis in neurodegenerative diseases and its implications for therapeutic development.* CNS Neurol Disord Drug Targets, 2008. 7(2): p. 187-210.
3. Andrade, C. and R. Radhakrishnan, *The prevention and treatment of cognitive decline and dementia: An overview of recent research on experimental treatments.* Indian Journal of Psychiatry, 2009. 51(1): p. 12.
4. Auffray, C., *Faculty of 1000 Biology: evaluations for Tobinick EL & Gross H J of Neuroinflammation 2008 Jan 9 5 (1): 2* <http://www.f1000biology.com/article/id/1097874/evaluation>. Faculty of 1000 Biology, 2008.
5. Balistreri, C.R., et al., *Association between the polymorphisms of TLR4 and CD14 genes and Alzheimer's disease.* Curr Pharm Des, 2008. 14(26): p. 2672-7.
6. Baune, B.T., et al., *Cognitive dysfunction in mice deficient for TNF- and its receptors.* Am J Med Genet B Neuropsychiatr Genet, 2008. 147B(7): p. 1056-64.
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