

# Stanford

---



## Raymond A. Sobel, M.D.

Professor of Pathology

NIH Biosketch available Online

Curriculum Vitae available Online

### Bio

---

#### BIO

Dr. Sobel is a Board Certified neuropathologist who has practiced academic neuropathology service and teaching for 40 years. His research interests are primarily in immune responses in the central nervous system as they relate to the pathogenesis of multiple sclerosis.

#### ACADEMIC APPOINTMENTS

- Professor, Pathology
- Member, Wu Tsai Neurosciences Institute

#### HONORS AND AWARDS

- Associate Editor, Journal of Neuropathology and Experimental Neurology (2005-2007)
- Editor-in-Chief, Journal of Neuropathology and Experimental Neurology (2007-2016)
- President, American Association of Neuropathologists (2011-2012)
- Deputy Editor, Journal of Neuropathology and Experimental Neurology (2016-present)
- Award for Meritorious Contributions to Neuropathology, American Association of Neuropathologists (June 8 2019)
- Weil Award for Best Paper on Experimental Neuropathology, American Association of Neuropathologists (June, 2020)

#### PROFESSIONAL EDUCATION

- M.D., UCSF , Medicine (1976)

### Research & Scholarship

---

#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

The lab is concerned with mechanisms of cellular immune reactions and tissue injury in the central nervous system (CNS) as they occur in human multiple sclerosis (MS). CNS tissue samples from animals with experimental autoimmune encephalomyelitis (EAE), a model of MS, and from patients with MS and other CNS diseases are studied using histology and immunohistochemistry at the light microscopic and ultrastructural levels to visualize directly the locations of molecules that are involved in immune-mediated injury and the failure of tissue repair.

We are currently focusing on cross-recognition of neurons and neuronal precursors by anti-myelin proteolipid protein antibodies, which may result in neuronal dysfunction and the failure of neuronal repair in CNS injury and on an oligodendroglialopathy induced by the environmental agent azetidine.

## Teaching

---

### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Immunology (Phd Program)
- Neurosciences (Phd Program)

## Publications

---

### PUBLICATIONS

- **Uncovering microstructural architecture from histology.** *bioRxiv : the preprint server for biology*  
Georgiadis, M., Auf der Heiden, F., Abbasi, H., Ettema, L., Nirschl, J., Taghavi, H. M., Wakatsuki, M., Liu, A., Ho, W. H., Carlson, M., Doukas, M., Koppes, S. A., Keereweer, et al  
2024
- **Investigation into Cardiac Myhc-# 334-352-Specific TCR Transgenic Mice Reveals a Role for Cytotoxic CD4 T Cells in the Development of Cardiac Autoimmunity.** *Cells*  
Sur, M., Rasquinha, M. T., Mone, K., Massilamany, C., Lasrado, N., Gurumurthy, C., Sobel, R. A., Reddy, J.  
2024; 13 (3)
- **Targeting PGLYRP1 promotes antitumor immunity while inhibiting autoimmune neuroinflammation.** *Nature immunology*  
Schnell, A., Huang, L., Regan, B. M., Singh, V., Vonficht, D., Bollhagen, A., Wang, M., Hou, Y., Bod, L., Sobel, R. A., Chihara, N., Madi, A., Anderson, et al  
2023
- **T cell deletional tolerance restricts AQP4 but not MOG CNS autoimmunity.** *Proceedings of the National Academy of Sciences of the United States of America*  
Sagan, S. A., Moinfar, Z., Moseley, C. E., Dandekar, R., Spencer, C. M., Verkman, A. S., Ottersen, O. P., Sobel, R. A., Sidney, J., Sette, A., Anderson, M. S., Steinman, L., Wilson, et al  
2023; 120 (30): e2306572120
- **CAR-T Cell-Mediated B-Cell Depletion in Central Nervous System Autoimmunity.** *Neurology(R) neuroimmunology & neuroinflammation*  
Gupta, S., Simic, M., Sagan, S. A., Shepherd, C., Duecker, J., Sobel, R. A., Dandekar, R., Wu, G. F., Wu, W., Pak, J. E., Hauser, S. L., Lim, W., Wilson, et al  
2023; 10 (2)
- **A Monovalent Mt10-CVB3 Vaccine Prevents CVB4-Accelerated Type 1 Diabetes in NOD Mice.** *Vaccines*  
Rasquinha, M. T., Lasrado, N., Sur, M., Mone, K., Qiu, H., Riethoven, J. J., Sobel, R. A., Reddy, J.  
2022; 11 (1)
- **Evidence of increased sequestration of pro-resolving lipid mediators within brain esterified lipid pools of multiple sclerosis patients.** *Multiple sclerosis and related disorders*  
Shen, Q., Otoki, Y., Sobel, R. A., Nagra, R. M., Taha, A. Y.  
2022; 68: 104236
- **Azetidine-2-Carboxylic Acid-Induced Oligodendroglialopathy: Relevance to the Pathogenesis of Multiple Sclerosis.** *Journal of neuropathology and experimental neurology*  
Sobel, R. A., Albertelli, M., Hinojoza, J. R., Eaton, M. J., Grimes, K. V., Rubenstein, E.  
2022
- **Tim-3 adapter protein Bat3 acts as an endogenous regulator of tolerogenic dendritic cell function.** *Science immunology*  
Tang, R., Acharya, N., Subramanian, A., Purohit, V., Tabaka, M., Hou, Y., He, D., Dixon, K. O., Lambden, C., Xia, J., Rozenblatt-Rosen, O., Sobel, R. A., Wang, et al  
2022; 7 (69): eabm0631
- **Leigh Disease-Like Neuropathology in an Adult Following Covid-19 Infection and Global Anoxia**  
Sobel, R., Dulken, B., Reimer, R., Louie, C.  
OXFORD UNIV PRESS INC.2021: 582
- **Black and Blue: Eyes and Dyes**  
Sobel, R., Nirschl, J., Hammer, P., Sanchez, R., Pershing, S., Louie, C., Lin, J.

OXFORD UNIV PRESS INC.2021: 579

● **Metabolic modeling of single Th17 cells reveals regulators of autoimmunity.** *Cell*

Wagner, A., Wang, C., Fessler, J., DeTomaso, D., Avila-Pacheco, J., Kaminski, J., Zaghouani, S., Christian, E., Thakore, P., Schellhaass, B., Akama-Garren, E., Pierce, K., Singh, et al  
2021

● **T Follicular Regulatory Cell-Derived Fibrinogen-like Protein 2 Regulates Production of Autoantibodies and Induction of Systemic Autoimmunity.** *Journal of immunology (Baltimore, Md. : 1950)*

Sungnak, W., Wagner, A., Kowalczyk, M. S., Bod, L., Kye, Y., Sage, P. T., Sharpe, A. H., Sobel, R. A., Quintana, F. J., Rozenblatt-Rosen, O., Regev, A., Wang, C., Yosef, et al  
2020

● **Parkinson Disease and Amyotrophic Lateral Sclerosis in a Machinist-Welder: Reconsideration of an Archival Case**

Sobel, R.  
OXFORD UNIV PRESS INC.2020: 697

● **Mechanisms of Azetidine-2-carboxylic Acid (Aze)-Induced Oligodendroglialopathy In Vivo and In Vitro**

Sobel, R., Albertelli, M., Hinojoza, J., Eaton, M., Grimes, K., Rubenstein, E.  
OXFORD UNIV PRESS INC.2020: 661

● **In Silico Modeling of Metabolic State in Single Th17 Cells Reveals Novel Regulators of Inflammation and Autoimmunity**

Wagner, A., Wang, C., DeTomaso, D., Pacheco, J., Zaghouani, S., Fessler, J., Akama-Garren, E., Pierce, K., Ron-Harel, N., Haigis, M., Sobel, R. A., Clish, C., Regev, et al  
AMER ASSOC IMMUNOLOGISTS.2020

● **Checkpoint Receptor TIGIT Expressed on Tim-1+ B Cells Regulates Tissue Inflammation.** *Cell reports*

Xiao, S. n., Bod, L. n., Pochet, N. n., Kota, S. B., Hu, D. n., Madi, A. n., Kilpatrick, J. n., Shi, J. n., Ho, A. n., Zhang, H. n., Sobel, R. n., Weiner, H. L., Strom, et al  
2020; 32 (2): 107892

● **Potential Genetic and Immunologic Mechanisms of Therapeutic Resistance and Disease Progression in CNS Lymphoma Elucidated Via Whole Brain Autopsy Studies**

Solomon, D. A., Geng, H., Sobel, R. A., Subbaraj, L., Tsang, M., Rubenstein, J. L.  
AMER SOC HEMATOLOGY.2019

● **Anti-Myelin Proteolipid Protein Peptide Monoclonal Antibodies Recognize Cell Surface Proteins on Developing Neurons and Inhibit Their Differentiation.** *Journal of neuropathology and experimental neurology*

Sobel, R. A., Eaton, M. J., Jaju, P. D., Lowry, E., Hinojoza, J. R.  
2019

● **Glioneuronal Tumor With Features of Ganglioglioma and Neurocytoma Arising in the Fourth Ventricle: A Report of 2 Unusual Cases and a Review of Infratentorial Gangliogliomas.** *Journal of neuropathology and experimental neurology*

Harrison, W., Elsamadicy, A. A., McMahon, J. T., Chagoya, G., Sobel, R. A., McLendon, R. E., Adamson, C.  
2019

● **IL-11 Induces Encephalitogenic Th17 Cells in Multiple Sclerosis and Experimental Autoimmune Encephalomyelitis.** *Journal of immunology (Baltimore, Md. : 1950)*

Zhang, X., Kiapour, N., Kapoor, S., Khan, T., Thamilarasan, M., Tao, Y., Cohen, S., Miller, R., Sobel, R. A., Markovic-Plese, S.  
2019

● **Liver-specific knockdown of long-chain acyl-CoA synthetase 4 reveals its key role in VLDL-TG metabolism and phospholipid synthesis in mice fed a high-fat diet** *AMERICAN JOURNAL OF PHYSIOLOGY-ENDOCRINOLOGY AND METABOLISM*

Singh, A. B., Kan, C. K., Kraemer, F. B., Sobel, R. A., Liu, J.  
2019; 316 (5): E880–E894

● **DGAT1 inhibits retinol-dependent regulatory T cell formation and mediates autoimmune encephalomyelitis** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

Graham, K. L., Werner, B. J., Moyer, K. M., Patton, A. K., Krois, C. R., Yoo, H., Tverskoy, M., LaJevic, M., Napoli, J. L., Sobel, R. A., Zabel, B. A., Butcher, E. C.  
2019; 116 (8): 3126-3135

- **DGAT1 inhibits retinol-dependent regulatory T cell formation and mediates autoimmune encephalomyelitis.** *Proceedings of the National Academy of Sciences of the United States of America*  
Graham, K. L., Werner, B. J., Moyer, K. M., Patton, A. K., Krois, C. R., Yoo, H. S., Tverskoy, M., LaJovic, M., Napoli, J. L., Sobel, R. A., Zabel, B. A., Butcher, E. C.  
2019
- **Anti-Myelin Proteolipid Protein Antibodies Bind Cell Surface Proteins on Developing Neurons and Inhibit Their Differentiation**  
Sobel, R., Eaton, M., Hinojoza, J.  
OXFORD UNIV PRESS INC.2018: 481
- **Dendritic Cell PD-L1 Limits Autoimmunity and Follicular T Cell Differentiation and Function** *JOURNAL OF IMMUNOLOGY*  
Sage, P. T., Schildberg, F. A., Sobel, R. A., Kuchroo, V. K., Freeman, G. J., Sharpe, A. H.  
2018; 200 (8): 2592–2602
- **Functional Anti-TIGIT Antibodies Regulate Development of Autoimmunity and Antitumor Immunity** *JOURNAL OF IMMUNOLOGY*  
Dixon, K. O., Schorer, M., Nevin, J., Etminan, Y., Amoozgar, Z., Kondo, T., Kurtulus, S., Kassam, N., Sobel, R. A., Fukumura, D., Jain, R. K., Anderson, A. C., Kuchroo, et al  
2018; 200 (8): 3000–3007
- **Fas Promotes T Helper 17 Cell Differentiation and Inhibits T Helper 1 Cell Development by Binding and Sequestering Transcription Factor STAT1** *IMMUNITY*  
zu Horste, G., Przybylski, D., Schramm, M. A., Wang, C., Schnell, A., Lee, Y., Sobel, R., Regev, A., Kuchroo, V. K.  
2018; 48 (3): 556–+
- **Epitope Mapping of SERCA2a Identifies an Antigenic Determinant That Induces Mainly Atrial Myocarditis in A/J Mice** *JOURNAL OF IMMUNOLOGY*  
Krishnan, B., Massilamany, C., Basavalingappa, R. H., Gangapura, A., Rajasekaran, R. A., Afzal, M. Z., Khalilzad-Sharghi, V., Zhou, Y., Riethoven, J., Nandi, S. S., Mishra, P. K., Sobel, R. A., Strande, et al  
2018; 200 (2): 523–37
- **Microhemorrhage-associated tissue iron enhances the risk for Aspergillus fumigatus invasion in a mouse model of airway transplantation.** *Science translational medicine*  
Hsu, J. L., Manouvakhova, O. V., Clemons, K. V., Inayathullah, M. n., Tu, A. B., Sobel, R. A., Tian, A. n., Nazik, H. n., Pothineni, V. R., Pasupneti, S. n., Jiang, X. n., Dhillon, G. S., Bedi, et al  
2018; 10 (429)
- **Induction of Paralysis and Visual System Injury in Mice by T Cells Specific for Neuromyelitis Optica Autoantigen Aquaporin-4.** *Journal of visualized experiments : JoVE*  
Sagan, S. A., Cruz-Herranz, A., Spencer, C. M., Ho, P. P., Steinman, L., Green, A. J., Sobel, R. A., Zamvil, S. S.  
2017
- **Anti-PD-1-associated inflammatory-demyelinating lesions in patients with brain metastases**  
Samghabadi, P., Makar, S., Thomas, R., Pelpola, J., Reddy, S., Tranvinh, E., Spence, A., Vogel, H., Born, D., Sobel, R.  
OXFORD UNIV PRESS INC.2017: 500–501
- **T cells targeting neuromyelitis optica autoantigen aquaporin-4 cause paralysis and visual system injury.** *Journal of nature and science*  
Cruz-Herranz, A., Sagan, S. A., Sobel, R. A., Green, A. J., Zamvil, S. S.  
2017; 3 (5)
- **Lack of Efficacy of Liposomal Amphotericin B Against Acute and Chronic Trypanosoma cruzi Infection in Mice** *AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE*  
Clemons, K. V., Sobel, R. A., Martinez, M., Correa-Oliveira, R., Stevens, D. A.  
2017; 97 (4): 1141–46
- **Tolerance checkpoint bypass permits emergence of pathogenic T cells to neuromyelitis optica autoantigen aquaporin-4** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Sagan, S. A., Winger, R. C., Cruz-Herranz, A., Nelson, P. A., Hagberg, S., Miller, C. N., Spencer, C. M., Ho, P. P., Bennett, J. L., Levy, M., Levin, M. H., Verkman, A. S., Steinman, et al  
2016; 113 (51): 14781–14786
- **The central vein sign and its clinical evaluation for the diagnosis of multiple sclerosis: a consensus statement from the North American Imaging in Multiple Sclerosis Cooperative** *NATURE REVIEWS NEUROLOGY*

- Sati, P., Oh, J., Constable, R. T., Evangelou, N., Guttmann, C. R., Henry, R. G., Klawiter, E. C., Mainero, C., Massacesi, L., McFarland, H., Nelson, F., Ontaneda, D., Rauscher, et al  
2016; 12 (12): 714-722
- **Identification of an Epitope from Adenine Nucleotide Translocator 1 That Induces Inflammation in Heart in A/J Mice.** *American journal of pathology*  
Basavalingappa, R. H., Massilamany, C., Krishnan, B., Gangaplara, A., Kang, G., Khalilzad-Sharghi, V., Han, Z., Othman, S., Li, Q., Riethoven, J., Sobel, R. A., Steffen, D., Reddy, et al  
2016; 186 (12): 3160-3175
  - **Anti-CD48 Monoclonal Antibody Attenuates Experimental Autoimmune Encephalomyelitis by Limiting the Number of Pathogenic CD4+ T Cells.** *Journal of immunology*  
McArdel, S. L., Brown, D. R., Sobel, R. A., Sharpe, A. H.  
2016; 197 (8): 3038-3048
  - **Treatment of spontaneous EAE by laquinimod reduces Tfh, B cell aggregates, and disease progression.** *Neurology(R) neuroimmunology & neuroinflammation*  
Varrin-Doyer, M., Pekarek, K. L., Spencer, C. M., Bernard, C. C., Sobel, R. A., Cree, B. A., Schulze-Topphoff, U., Zamvil, S. S.  
2016; 3 (5)
  - **IL-10-dependent Tr1 cells attenuate astrocyte activation and ameliorate chronic central nervous system inflammation** *BRAIN*  
Mayo, L., da Cunha, A. P., Madi, A., Beynon, V., Yang, Z., Alvarez, J. I., Prat, A., Sobel, R. A., Kobzik, L., Lassmann, H., Quintana, F. J., Weiner, H. L.  
2016; 139: 1939-1957
  - **Dimethyl fumarate treatment induces adaptive and innate immune modulation independent of Nrf2** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Schulze-Topphoff, U., Varrin-Doyer, M., Pekarek, K., Spencer, C. M., Shetty, A., Sagan, S. A., Cree, B. A., Sobel, R. A., Wipke, B. T., Steinman, L., Scannevin, R. H., Zamvil, S. S.  
2016; 113 (17): 4777-4782
  - **CNS accumulation of regulatory B cells is VLA-4-dependent.** *Neurology® neuroimmunology & neuroinflammation*  
Lehmann-Horn, K., Sagan, S. A., Winger, R. C., Spencer, C. M., Bernard, C. C., Sobel, R. A., Zamvil, S. S.  
2016; 3 (2)
  - **CD5L/AIM Regulates Lipid Biosynthesis and Restrains Th17 Cell Pathogenicity** *CELL*  
Wang, C., Yosef, N., Gaublomme, J., Wu, C., Lee, Y., Clish, C. B., Kaminski, J., Xiao, S., Horste, G. M., Pawlak, M., Kishi, Y., Joller, N., Karwacz, et al  
2015; 163 (6)
  - **IL-21R signaling is critical for induction of spontaneous experimental autoimmune encephalomyelitis** *JOURNAL OF CLINICAL INVESTIGATION*  
Lee, Y., Mitsdoerffer, M., Xiao, S., Gu, G., Sobel, R. A., Kuchroo, V. K.  
2015; 125 (11): 4011-4020
  - **Deletion of CTLA-4 on regulatory T cells during adulthood leads to resistance to autoimmunity** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Paterson, A. M., Lovitch, S. B., Sage, P. T., Juneja, V. R., Lee, Y., Trombley, J. D., Arancibia-Carcamo, C. V., Sobel, R. A., Rudensky, A. Y., Kuchroo, V. K., Freeman, G. J., Sharpe, A. H.  
2015; 212 (10): 1603-1621
  - **B-Cell Very Late Antigen-4 Deficiency Reduces Leukocyte Recruitment and Susceptibility to Central Nervous System Autoimmunity** *ANNALS OF NEUROLOGY*  
Lehmann-Horn, K., Sagan, S. A., Bernard, C. C., Sobel, R. A., Zamvil, S. S.  
2015; 77 (5): 902-908
  - **Tim-1 Is Essential for Induction and Maintenance of IL-10 in Regulatory B Cells and Their Regulation of Tissue Inflammation** *JOURNAL OF IMMUNOLOGY*  
Xiao, S., Brooks, C. R., Sobel, R. A., Kuchroo, V. K.  
2015; 194 (4): 1602-1608
  - **Podoplanin negatively regulates CD4(+) effector T cell responses** *JOURNAL OF CLINICAL INVESTIGATION*  
Peters, A., Burkett, P. R., Sobel, R. A., Buckley, C. D., Watson, S. P., Bettelli, E., Kuchroo, V. K.  
2015; 125 (1): 129-140
  - **A Novel CMKLR1 Small Molecule Antagonist Suppresses CNS Autoimmune Inflammatory Disease** *PLOS ONE*

Graham, K. L., Zhang, J. V., Lewen, S., Burke, T. M., Dang, T., Zoudilova, M., Sobel, R. A., Butcher, E. C., Zabel, B. A.  
2014; 9 (12)

- **Genome-wide RNA expression profiling in human grey and white matter tissue reveals a role for PSA-NCAM dysregulation in MS pathogenesis**

Bruinsma, I., Eijsink, V., Kooi, E., Baranzini, S., Ji, X., Axtell, R., Han, M., Kuipers, H., Sobel, R., Polman, C., Geurts, J., Martens, G., Poelmans, et al  
ELSEVIER SCIENCE BV.2014: 180–81

- **Laquinimod prevents disability progression in a model of spontaneous chronic EAE and interferes with development of follicular helper T cells**

Varrin-doyer, M., Topphoff, U., Pekarek, K., Sobel, R. A., Zamvil, S. S.  
ELSEVIER SCIENCE BV.2014: 209

- **Immunodominant T-cell epitopes of MOG reside in its transmembrane and cytoplasmic domains in EAE. *Neurology® neuroimmunology & neuroinflammation***

Shetty, A., Gupta, S. G., Varrin-Doyer, M., Weber, M. S., Prod'homme, T., Molnarfi, N., Ji, N., Nelson, P. A., Patarroyo, J. C., Schulze-Topphoff, U., Fogal, S. E., Forsthuber, T., Sobel, et al  
2014; 1 (2)

- **Sphingosine-1-Phosphate Receptor Phosphorylation and its Effects on Autoimmune Neuroinflammation**

Garris, C. S., Wu, L., Sobel, R. A., Snyder, M., Hla, T. T., Dorfman, L. J., Han, M. H.  
SAGE PUBLICATIONS LTD.2014: 958

- **SJL Mice Infected with Acanthamoeba castellanii Develop Central Nervous System Autoimmunity through the Generation of Cross-Reactive T Cells for Myelin Antigens *PLOS ONE***

Massilamany, C., Marciano-Cabral, F., da Rocha-Azevedo, B., Jamerson, M., Gangaplara, A., Steffen, D., Zabad, R., Illes, Z., Sobel, R. A., Reddy, J.  
2014; 9 (5)

- **Uncovering Cryptic Glycan Markers in Multiple Sclerosis (MS) and Experimental Autoimmune Encephalomyelitis (EAE) *DRUG DEVELOPMENT RESEARCH***

Wang, D., Bhat, R., Sobel, R. A., Huang, W., Wang, L., Olsson, T., Steinman, L.  
2014; 75 (3): 172-188

- **A novel CMKLR1 small molecule antagonist suppresses CNS autoimmune inflammatory disease. *PloS one***

Graham, K. L., Zhang, J. V., Lewén, S., Burke, T. M., Dang, T., Zoudilova, M., Sobel, R. A., Butcher, E. C., Zabel, B. A.  
2014; 9 (12)

- **MHC class II-dependent B cell APC function is required for induction of CNS autoimmunity independent of myelin-specific antibodies *JOURNAL OF EXPERIMENTAL MEDICINE***

Molnarfi, N., Schulze-Topphoff, U., Weber, M. S., Patarroyo, J. C., Prod'homme, T., Varrin-Doyer, M., Shetty, A., Linington, C., Slavin, A. J., Hidalgo, J., Jenne, D. E., Wekerle, H., Sobel, et al  
2013; 210 (13): 2921-2937

- **Defective sphingosine 1-phosphate receptor 1 (S1P1) phosphorylation exacerbates TH17-mediated autoimmune neuroinflammation. *Nature immunology***

Garris, C. S., Wu, L., Acharya, S., Arac, A., Blaho, V. A., Huang, Y., Moon, B. S., Axtell, R. C., Ho, P. P., Steinberg, G. K., Lewis, D. B., Sobel, R. A., Han, et al  
2013; 14 (11): 1166-1172

- **Defective sphingosine 1-phosphate receptor 1 (S1P1) phosphorylation exacerbates TH17-mediated autoimmune neuroinflammation. *Nature immunology***

Garris, C. S., Wu, L., Acharya, S., Arac, A., Blaho, V. A., Huang, Y., Moon, B. S., Axtell, R. C., Ho, P. P., Steinberg, G. K., Lewis, D. B., Sobel, R. A., Han, et al  
2013; 14 (11): 1166-1172

- **Aspergillus fumigatus Invasion Increases with Progressive Airway Ischemia *PLOS ONE***

Hsu, J. L., Khan, M. A., Sobel, R. A., Jiang, X., Clemons, K. V., Nguyen, T. T., Stevens, D. A., Martinez, M., Nicolls, M. R.  
2013; 8 (10)

- **Tob1 plays a critical role in the activation of encephalitogenic T cells in CNS autoimmunity. *journal of experimental medicine***

Schulze-Topphoff, U., Casazza, S., Varrin-Doyer, M., Pekarek, K., Sobel, R. A., Hauser, S. L., Oksenberg, J. R., Zamvil, S. S., Baranzini, S. E.  
2013; 210 (7): 1301-1309

- **Fms-like tyrosine kinase 3 ligand-Fc chimera suppresses autoimmune demyelinating disease**

Burke, T., Tu, H., Lewen, S., Huang, K., Carlson, J., Sobel, R., Zabel, B.  
AMER ASSOC IMMUNOLOGISTS.2013

- **A novel CMKLR1 small molecule antagonist suppresses experimental autoimmune demyelinating disease**  
Zabel, B., Zhang, J., Lewen, S., Burke, T., Carlson, J., Zoudilova, M., Sobel, R., Butcher, E., Graham, K.  
AMER ASSOC IMMUNOLOGISTS.2013
- **Amyloid Fibrils Composed of Hexameric Peptides Attenuate Neuroinflammation** *SCIENCE TRANSLATIONAL MEDICINE*  
Kurnellas, M. P., Adams, C. M., Sobel, R. A., Steinman, L., Rothbard, J. B.  
2013; 5 (179)
- **Novel dominant and subdominant T cell epitopes of the CNS autoantigen, myelin oligodendrocyte glycoprotein, in mice and MS patients** *11th International Congress of Neuroimmunology (ISNI)*  
Shetty, A., Gupta, S., Varrin-Doyer, M., Weber, M., Ji, N., Molnarfi, N., Nelson, P., Sagan, S., Forsthuber, T., Bernard, C., Slavin, A., Sobel, R., Zamvil, et al  
ELSEVIER SCIENCE BV.2012: 147-47
- **Inhibition of CD4+T cell-mediated tissue inflammation by Podoplanin**  
Peters, A., Burkett, P., Sobel, R., Bettelli, E., Kuchroo, V.  
ELSEVIER.2012: 130
- **Encephalitogenic potential of discrete T cell epitopes of aquaporin-4 (AQP4)** *11th International Congress of Neuroimmunology (ISNI)*  
Nelson, P., Varrin-Doyer, M., Spencer, C., Sagan, S., Sobel, R., Bennett, J., Zamvil, S.  
ELSEVIER SCIENCE BV.2012: 49-49
- **Chaperone Activity of Small Heat Shock Proteins Underlies Therapeutic Efficacy in Experimental Autoimmune Encephalomyelitis** *JOURNAL OF BIOLOGICAL CHEMISTRY*  
Kurnellas, M. P., Brownell, S. E., Su, L., Malkovskiy, A. V., Rajadas, J., Dolganov, G., Chopra, S., Schoolnik, G. K., Sobel, R. A., Webster, J., Ousman, S. S., Becker, R. A., Steinman, et al  
2012; 287 (43): 36423-36434
- **Induction and molecular signature of pathogenic T(H)17 cells** *NATURE IMMUNOLOGY*  
Lee, Y., Awasthi, A., Yosef, N., Quintana, F. J., Xiao, S., Peters, A., Wu, C., Kleinewietfeld, M., Kunder, S., Hafler, D. A., Sobel, R. A., Regev, A., Kuchroo, et al  
2012; 13 (10): 991-999
- **Bat3 promotes T cell responses and autoimmunity by repressing Tim-3-mediated cell death and exhaustion** *NATURE MEDICINE*  
Rangachari, M., Zhu, C., Sakuishi, K., Xiao, S., Karman, J., Chen, A., Angin, M., Wakeham, A., Greenfield, E. A., Sobel, R. A., Okada, H., McKinnon, P. J., Mak, et al  
2012; 18 (9): 1394-?
- **Defect in regulatory B-cell function and development of systemic autoimmunity in T-cell Ig mucin 1 (Tim-1) mucin domain-mutant mice** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Xiao, S., Brooks, C. R., Zhu, C., Wu, C., Sweere, J. M., Petecka, S., Yeste, A., Quintana, F. J., Ichimura, T., Sobel, R. A., Bonventre, J. V., Kuchroo, V. K.  
2012; 109 (30): 12105-12110
- **Janus-like opposing roles of CD47 in autoimmune brain inflammation in humans and mice** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Han, M. H., Lundgren, D. H., Jaiswal, S., Chao, M., Graham, K. L., Garris, C. S., Axtell, R. C., Ho, P. P., Lock, C. B., Woodard, J. I., Brownell, S. E., Zoudilova, M., Hunt, et al  
2012; 209 (7): 1325-1334
- **Laquinimod Promotes T Cell Immune Modulation in Central Nervous System Autoimmunity Via Type II (M2) Myeloid APC** *64th Annual Meeting of the American-Academy-of-Neurology (AAN)*  
Topphoff, U. S., Shetty, A., Varrin-Doyer, M., Molnarfi, N., Sagan, S., Sobel, R., Nelson, P., Zamvil, S.  
LIPPINCOTT WILLIAMS & WILKINS.2012
- **T Cell Epitope 119-132, but Not 35-55, Is the Immunodominant Encephalitogenic Determinant of the CNS Autoantigen, Myelin Oligodendrocyte Glycoprotein** *64th Annual Meeting of the American-Academy-of-Neurology (AAN)*  
Shetty, A., Gupta, S., Weber, M., Molnarfi, N., Forsthuber, T., Sobel, R., Bernard, C., Slavin, A., Zamvil, S.  
LIPPINCOTT WILLIAMS & WILKINS.2012
- **Aquaporin-4 Peptide-Specific T Cells Induce CNS Inflammation** *64th Annual Meeting of the American-Academy-of-Neurology (AAN)*  
Nelson, P., Varrin-Doyer, M., Spencer, C., Sagan, S., Boyd, C., Sobel, R., Bennett, J., Zamvil, S.  
LIPPINCOTT WILLIAMS & WILKINS.2012
- **Laquinimod, a Quinoline-3-Carboxamide, Induces Type II Myeloid Cells That Modulate Central Nervous System Autoimmunity** *PLOS ONE*

Schulze-Topphoff, U., Shetty, A., Varrin-Doyer, M., Molnarfi, N., Sagan, S. A., Sobel, R. A., Nelson, P. A., Zamvil, S. S.  
2012; 7 (3)

- **A Transgenic Model of Central Nervous System Autoimmunity Mediated by CD4(+) and CD8(+) T and B Cells** *JOURNAL OF IMMUNOLOGY*  
Anderson, A. C., Chandwaskar, R., Lee, D. H., Sullivan, J. M., Solomon, A., Rodriguez-Manzanet, R., Greve, B., Sobel, R. A., Kuchroo, V. K.  
2012; 188 (5): 2084-2092
- **Apparent Expression of Varicella-Zoster Virus Proteins in Latency Resulting from Reactivity of Murine and Rabbit Antibodies with Human Blood Group A Determinants in Sensory Neurons** *JOURNAL OF VIROLOGY*  
Zerboni, L., Sobel, R. A., Lai, M., Triglia, R., Steain, M., Abendroth, A., Arvina, A.  
2012; 86 (1): 578-583
- **Th17 Cells Induce Ectopic Lymphoid Follicles in Central Nervous System Tissue Inflammation** *IMMUNITY*  
Peters, A., Pitcher, L. A., Sullivan, J. M., Mitsdoerffer, M., Acton, S. E., Franz, B., Wucherpfennig, K., Turley, S., Carroll, M. C., Sobel, R. A., Bettelli, E., Kuchroo, V. K.  
2011; 35 (6): 986-996
- **Tyrosine Kinase Inhibitors Ameliorate Autoimmune Encephalomyelitis in a Mouse Model of Multiple Sclerosis** *JOURNAL OF CLINICAL IMMUNOLOGY*  
Crespo, O., Kang, S. C., Daneman, R., Lindstrom, T. M., Ho, P. P., Sobel, R. A., Steinman, L., Robinson, W. H.  
2011; 31 (6): 1010-1020
- **Aberrant mitochondrial fission in neurons induced by protein kinase C delta under oxidative stress conditions in vivo** *MOLECULAR BIOLOGY OF THE CELL*  
Qi, X., Disatnik, M., Shen, N., Sobel, R. A., Mochly-Rosen, D.  
2011; 22 (2): 256-265
- **Peroxisome proliferator-activated receptor delta limits the expansion of pathogenic Th cells during central nervous system autoimmunity** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Dunn, S. E., Bhat, R., Straus, D. S., Sobel, R. A., Axtell, R., Johnson, A., Nguyen, K., Mukundan, L., Moshkova, M., Dugas, J. C., Chawla, A., Steinman, L.  
2010; 207 (8): 1599-1608
- **Tim-3/Galectin-9 Pathway: Regulation of Th1 Immunity through Promotion of CD11b(+)Ly-6G(+) Myeloid Cells** *JOURNAL OF IMMUNOLOGY*  
Dardalhon, V., Anderson, A. C., Karman, J., Apetoh, L., Chandwaskar, R., Lee, D. H., Cornejo, M., Nishi, N., Yamauchi, A., Quintana, F. J., Sobel, R. A., Hirashima, M., Kuchroo, et al  
2010; 185 (3): 1383-1392
- **Enhanced expression of mitochondrial superoxide dismutase leads to prolonged in vivo cell cycle progression and up-regulation of mitochondrial thioredoxin** *FREE RADICAL BIOLOGY AND MEDICINE*  
Kim, A., Joseph, S., Khan, A., Epstein, C. J., Sobel, R., Huang, T.  
2010; 48 (11): 1501-1512
- **Expression of Varicella-Zoster Virus Immediate-Early Regulatory Protein IE63 in Neurons of Latently Infected Human Sensory Ganglia** *JOURNAL OF VIROLOGY*  
Zerboni, L., Sobel, R. A., Ramachandran, V., Rajamani, J., Ruyechan, W., Abendroth, A., Arvin, A.  
2010; 84 (7): 3421-3430
- **Th1, Th17, and Th9 Effector Cells Induce Experimental Autoimmune Encephalomyelitis with Different Pathological Phenotypes** *JOURNAL OF IMMUNOLOGY*  
Jaeger, A., Dardalhon, V., Sobel, R. A., Bettelli, E., Kuchroo, V. K.  
2009; 183 (11): 7169-7177
- **Chemokine-Like Receptor-1 Expression by Central Nervous System-Infiltrating Leukocytes and Involvement in a Model of Autoimmune Demyelinating Disease** *JOURNAL OF IMMUNOLOGY*  
Graham, K. L., Zabel, B. A., Loghavi, S., Zuniga, L. A., Ho, P. P., Sobel, R. A., Butcher, E. C.  
2009; 183 (10): 6717-6723
- **Genetic Evidence That the Differential Expression of the Ligand-Independent Isoform of CTLA-4 Is the Molecular Basis of the Idd5.1 Type 1 Diabetes Region in Nonobese Diabetic Mice** *JOURNAL OF IMMUNOLOGY*  
Araki, M., Chung, D., Liu, S., Rainbow, D. B., Chamberlain, G., Garner, V., Hunter, K. M., Vijayakrishnan, L., Peterson, L. B., Oukka, M., Sharpe, A. H., Sobel, R., Kuchroo, et al  
2009; 183 (8): 5146-5157

- **Blocking angiotensin-converting enzyme induces potent regulatory T cells and modulates TH1-and TH17-mediated autoimmunity** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Platten, M., Youssef, S., Hur, E. M., Ho, P. P., Han, M. H., Lanz, T. V., Phillips, L. K., Goldstein, M. J., Bhat, R., Raine, C. S., Sobel, R. A., Steinman, L. 2009; 106 (35): 14948-14953
- **Comparative Efficacies of Lipid-Complexed Amphotericin B and Liposomal Amphotericin B against Coccidioidal Meningitis in Rabbits** *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY*  
Clemons, K. V., Capilla, J., Sobel, R. A., Martinez, M., Tong, A., Stevens, D. A. 2009; 53 (5): 1858-1862
- **Opportunistic enteroviral meningoencephalitis: an unusual treatable complication of rituximab therapy** *LEUKEMIA & LYMPHOMA*  
Ganjoo, K. N., Raman, R., Sobel, R. A., Pinto, H. A. 2009; 50 (4): 673-675
- **IL-4 Inhibits TGF-beta-induced Foxp3+T Cells and, Together with TGF-beta, Generates IL-9+IL-10+Foxp3-Effector T Cells**  
Awasthi, A., Dardalhon, V., Galileos, G., Gao, W., Strom, T., Sobel, R., Ho, I., Oukka, M., Kuchroo, V. ACADEMIC PRESS INC ELSEVIER SCIENCE 2009: S25
- **Tyrosine Kinases in Autoimmune Demyelination** *9th Annual Meeting of the Federation-of-Clinical-Immunology-Societies*  
Crespo, O., Kang, S., Daneman, R., Sobel, R., Ho, P., Steinman, L., Robinson, W. ACADEMIC PRESS INC ELSEVIER SCIENCE 2009: S73-S73
- **IL-4 inhibits TGF-beta-induced Foxp3(+) T cells and, together with TGF-beta, generates IL-9(+) IL-10(+) Foxp3(-) effector T cells** *NATURE IMMUNOLOGY*  
Dardalhon, V., Awasthi, A., Kwon, H., Galileos, G., Gao, W., Sobel, R. A., Mitsdoerffer, M., Strom, T. B., Elyaman, W., Ho, I., Khouri, S., Oukka, M., Kuchroo, et al 2008; 9 (12): 1347-1355
- **A Novel Unifying Hypothesis of Multiple Sclerosis** *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*  
Sobel, R. A. 2008; 67 (11): 1032-1034
- **Tim-3: Galectin-9 pathway protects against CNS autoimmunity by expanding myeloid-derived suppressor cells**  
Anderson, A., Dardalhon, V., Karman, J., Chandwaskar, R., Lee, D. H., Cornejo, M., Nishi, N., Yamauchi, A., Sobel, R. A., Mitsuomi, H., Kuchroo, V. K. ELSEVIER SCIENCE BV 2008: 272-272
- **Peroxisome proliferator-activated receptor acts as an endogenous brake on the formation of Th1 and Th17 myelin-reactive cells**  
Dunn, S., Straus, D., Sobel, R., Johnson, A., Bhat, R., Dugas, J., Chawla, A., Steinman, L. SAGE PUBLICATIONS LTD 2008: S120
- **TIM-4 expressed on APCs induces T cell expansion and survival** *JOURNAL OF IMMUNOLOGY*  
Rodriguez-Manzanet, R., Meyers, J. H., Balasubramanian, S., Slavik, J., Kassam, N., Dardalhon, V., Greenfield, E. A., Anderson, A. C., Sobel, R. A., Hafler, D. A., Strom, T. B., Kuchroo, V. K. 2008; 180 (7): 4706-4713
- **Proteomic analysis of active multiple sclerosis lesions reveals therapeutic targets** *NATURE*  
Han, M. H., Hwang, S., Roy, D. B., Lundgren, D. H., Price, J. V., Ousman, S. S., Fernald, G. H., Gerlitz, B., Robinson, W. H., Baranzini, S. E., Grinnell, B. W., Raine, C. S., Sobel, et al 2008; 451 (7182): 1076-U2
- **Anti-Ca<sup>2+</sup> channel antibody attenuates Ca<sup>2+</sup> currents and mimics cerebellar ataxia in vivo** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Liao, Y. J., Safa, P., Chen, Y., Sobel, R. A., Boyden, E. S., Tsien, R. W. 2008; 105 (7): 2705-2710
- **Sustained pharmacological inhibition of delta PKC protects against hypertensive encephalopathy through prevention of blood-brain barrier breakdown in rats** *JOURNAL OF CLINICAL INVESTIGATION*  
Qi, X., Inagaki, K., Sobel, R. A., Mochly-Rosen, D. 2008; 118 (1): 173-182
- **Tim-3 : Galectin-9 pathway expands myeloid suppressor cells** *8th Annual Meeting of the Federation-of-Clinical-Immunology-Societies*

- Dardalhon, V., Anderson, A., Korman, J., Chandwaskar, R., Lee, D., Cornejo, M., Nishi, N., Yamauchi, A., Sobel, R., Hiroshima, M., Kuchroo, V.  
ACADEMIC PRESS INC ELSEVIER SCIENCE.2008: S12–S12
- **Neuropathology-for the living and the future** *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*  
Sobel, R. A.  
2007; 66 (12): 1057-1058
  - **Purified MHC-matched hematopoietic stem cell transplantation following T cell lymphoid irradiation and anti-thymocyte globulin (TLI plus ATG) blocks EAE pathogenesis** *49th Annual Meeting of the American-Society-of-Hematology*  
Lee, L., Burge, M., Ho, P., Sobel, R., Shizuru, J.  
AMER SOC HEMATOLOGY.2007: 957A–957A
  - **Efficacy of amphotericin B lipid complex in a rabbit model of coccidioidal meningitis** *JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY*  
Capilla, J., Clemons, K. V., Sobel, R. A., Stevens, D. A.  
2007; 60 (3): 673-676
  - **Type II monocytes modulate T cell-mediated central nervous system autoimmune disease** *NATURE MEDICINE*  
Weber, M. S., Prod'homme, T., Youssef, S., Dunn, S. E., Rundle, C. D., Lee, L., Patarroyo, J. C., Stuve, O., Sobel, R. A., Steinman, L., Zamvil, S. S.  
2007; 13 (8): 935-943
  - **Protective and therapeutic role for alpha B-crystallin in autoimmune demyelination** *NATURE*  
Ousman, S. S., Tomooka, B. H., Van Noort, J. M., Wawrousek, E. F., O'Connor, K. C., Hafler, D. A., Sobel, R. A., Robinson, W. H., Steinman, L.  
2007; 448 (7152): 474-U7
  - **Differential engagement of Tim-1 during activation can positively or negatively costimulate T cell expansion and effector function** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Xiao, S., Najafian, N., Reddy, J., Albin, M., Zhu, C., Jensen, E., Imitola, J., Korn, T., Anderson, A. C., Zhang, Z., Gutierrez, C., Moll, T., Sobel, et al  
2007; 204 (7): 1691-1702
  - **Monoclonal antibodies (mAbs) to myelin proteolipid protein (PLP) epitopes recognize neurons in the developing human CNS** *83rd Annual Meeting of the American-Association-of-Neuropathologists*  
Sobel, R. A., Jaju, P., Eaton, M. J., Hinojoza, J. R.  
LIPPINCOTT WILLIAMS & WILKINS.2007: 431–31
  - **Myelin-specific regulatory T cells accumulate in the CNS but fail to control autoimmune inflammation** *NATURE MEDICINE*  
Korn, T., Reddy, J., Gao, W., Bettelli, E., Awasthi, A., Petersen, T. R., Backstrom, B. T., Sobel, R. A., Wucherpfennig, K. W., Strom, T. B., Oukka, M., Kuchroo, V. K.  
2007; 13 (4): 423-431
  - **Suppressive Role of CD72 in Experimental Autoimmune Encephalomyelitis**  
Li, D. H., Creusot, R., Ousman, S. S., Fontoura, P., Sobel, R. A., Cao, T. M., Ho, P., Youssef, S., Robinson, W. H., Hong, A., Steinman, L., Parnes, J. R.  
AMER ASSOC IMMUNOLOGISTS.2007
  - **Monoclonal antibodies (mAbs) to myelin proteolipid protein (PLP) epitopes recognize neurons in the developing human CNS** *Experimental Biology 2007 Annual Meeting*  
Sobel, R. A., Jaju, P., Eaton, M. J., Hinojoza, J. R.  
FEDERATION AMER SOC EXP BIOL.2007: A64–A65
  - **Comparison of itraconazole and fluconazole treatments in a murine model of coccidioidal meningitis** *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY*  
Kamberi, P., Sobel, R. A., Clemons, K. V., Waldvogel, A., Striebel, J. M., Williams, P. L., Stevens, D. A.  
2007; 51 (3): 998-1003
  - **Peroxisome proliferator-activated receptor (PPAR)alpha expression in T cells mediates gender differences in development of T cell-mediated autoimmunity** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Dunn, S. E., Ousman, S. S., Sobel, R. A., Zuniga, L., Baranzini, S. E., Youssef, S., Crowell, A., Loh, J., Oksenberg, J., Steinman, L.  
2007; 204 (2): 321-330
  - **Heme oxygenase-1 and carbon monoxide suppress autoimmune neuroinflammation** *JOURNAL OF CLINICAL INVESTIGATION*  
Chora, A. A., Fontoura, P., Cunha, A., Pais, T. F., Cardoso, S., Ho, P. P., Lee, L. Y., Sobel, R. A., Steinman, L., Soares, M. P.  
2007; 117 (2): 438-447

- **Anti-viral T-cell immunity plus anti-CNS autoantibody equals a model for human acute disseminated encephalomyelitis or multiple sclerosis relapse? *AMERICAN JOURNAL OF PATHOLOGY***  
Sobel, R. A.  
2007; 170 (2): 436-438
- **Osteopontin-induced relapse and progression of autoimmune brain disease through enhanced survival of activated T cells *NATURE IMMUNOLOGY***  
Hur, E. M., Youssef, S., Haws, M. E., Zhang, S. Y., Sobel, R. A., Steinman, L.  
2007; 8 (1): 74-83
- **Peroxisome proliferator-activated Receptor-alpha (PPAR alpha) expression in T cells mediates gender differences in development of T cell-mediated autoimmunity**  
Dunn, S., Ousman, S., Sobel, R., Baranzini, S., Zuniga, L., Youssef, S., Oksenberg, J., Steinman, L.  
ACADEMIC PRESS INC ELSEVIER SCIENCE.2007: S74
- **Tim-4 expressed on antigen-presenting cells induces T cell expansion and survival**  
Manzanet, R., Hartt-Meyers, J., Slavik, J., Dardalhon, V., Kassam, N., Greenfield, E. A., Sobel, R. A., Strom, T. B., Hafter, D. A., Kuchroo, V. K.  
ACADEMIC PRESS INC ELSEVIER SCIENCE.2007: S124-S125
- **Myelin-specific regulatory T cells accumulate in the central nervous system, but fail to suppress pathogenic effector T cells at the peak of autoimmune inflammation**  
Korn, T., Oukka, M., Reddy, J., Bettelli, E., Awasthi, A., Sobel, R., Wucherpfennig, K., Kuchroo, V.  
ACADEMIC PRESS INC ELSEVIER SCIENCE.2007: S152-S153
- **Chemokine-like receptor-1 (CMKLR1) regulates experimental autoimmune encephalomyelitis**  
Graham, K. L., Zuniga, L. A., Zabel, B. A., Butcher, E. C., Sobel, R. A.  
ACADEMIC PRESS INC ELSEVIER SCIENCE.2007: S138
- **Protective and therapeutic role for alpha B-crystallin in autoimmune demyelination**  
Ousman, S., Tomooka, B., Van Noort, J., O'Conner, K., Wawrousek, E., Hafler, D., Sobel, R., Robinson, W., Steinman, L.  
ACADEMIC PRESS INC ELSEVIER SCIENCE.2007: S139
- **Proteomic profiling of multiple sclerosis lesions identify potential targets for therapy *7th Annual Meeting of the Federation-of-Clinical-Immunology-Societies***  
Han, M. H., Hwang, S., Roy, D., Raine, C., Robinson, W. H., Sobel, R. A., Han, D., Steinman, L.  
ACADEMIC PRESS INC ELSEVIER SCIENCE.2007: S153-S153
- **Experimental systemic infection with Cryptococcus neoformas var. grubii and Cryptococcus gattii in normal and immunodeficient mice *MEDICAL MYCOLOGY***  
Capilla, J., Maffei, C. M., Clemons, K. V., Sobel, R. A., Stevens, D. A.  
2006; 44 (7): 601-610
- **Myelin oligodendrocyte glycoprotein in-specific T and B cells cooperate to induce a Devic-like disease in mice *JOURNAL OF CLINICAL INVESTIGATION***  
Bettelli, E., Baeten, D., Jager, A., Sobel, R. A., Kuchroo, V. K.  
2006; 116 (9): 2393-2402
- **Monoclonal antibodies to myelin proteolipid protein (PLP) epitopes inhibit neurite outgrowth: Implications for MS**  
Hinojoza, J. R., Han, M. H., Eaton, M., Sharpe, O., Steinman, L., Robinson, W. H., Sobel, R. A.  
BLACKWELL PUBLISHING.2006: S13
- **Idd5.4 on chromosome 1 mediates resistance to experimental autoimmune encephalomyelitis *8th International Conference of Neuroimmunology***  
Araki, M., Chung, D., Vijaykrishnan, L., Sobel, R. A., Hunter, K., Peterson, L. B., Wicker, L. S., Kuchroo, V. K.  
ELSEVIER SCIENCE BV.2006: 40-40
- **Proteomic profiling of multiple sclerosis plaques *8th International Conference of Neuroimmunology***  
Han, M. H., Hwang, S., Robinson, W. H., Raine, C. S., Sobel, R., Han, D. K., Steinman, L.  
ELSEVIER SCIENCE BV.2006: 23-23
- **Immunomodulatory synergy by combination of atorvastatin and glatiramer acetate in treatment of CNS autoimmunity *JOURNAL OF CLINICAL INVESTIGATION***  
Stuve, O., Youssef, S., Weber, M. S., Nessler, S., von Budingen, H. C., Hemmer, B., Prod'homme, T., Sobel, R. A., Steinman, L., Zamvil, S. S.  
2006; 116 (4): 1037-1044

- **The autoimmune diabetes locus Idd9 regulates development of Type 1 diabetes by affecting the homing of islet-specific T cells**  
 Waldner, H., Sobel, R. A., Price, N., Kuchroo, V. K.  
 AMER ASSOC IMMUNOLOGISTS.2006: S142
- **Monoclonal antibodies to distinct regions of human myelin proteolipid protein simultaneously recognize central nervous system myelin and neurons of many vertebrate species JOURNAL OF NEUROSCIENCE RESEARCH**  
 Greenfield, E. A., Reddy, J., Lees, A., Dyer, C. A., Koul, O., Nguyen, K., Bell, S., Kassam, N., Hinojoza, J., Eaton, M. J., Lees, M. B., Kuchroo, V. K., Sobel, et al  
 2006; 83 (3): 415-431
- **Lipid microarrays identify key mediators of autoimmune brain inflammation NATURE MEDICINE**  
 Kanter, J. L., Narayana, S., Ho, P. P., Catz, I., Warren, K. G., Sobel, R. A., Steinman, L., Robinson, W. H.  
 2006; 12 (1): 138-143
- **Blocking angiotensin II suppresses IL-12 signaling in autoreactive Th cells and treats autoimmune neuroinflammation.**  
 Platten, M., Youssef, S., Hur, E., Ho, P., Ousman, S., Sobel, R., Steinman, L.  
 ACADEMIC PRESS INC ELSEVIER SCIENCE.2006: S109
- **PPAR alpha mediates the sexual dimorphism in the development of Th1-mediated CNS autoimmune disease.**  
 Dunn, S., Ousman, S., Sobel, R., Zuniga, L., Baranzini, S., Crowell, A., Loh, J., Oksenberg, J., Steinman, L.  
 ACADEMIC PRESS INC ELSEVIER SCIENCE.2006: S111
- **TIM-1 plays a crucial role in the expansion of autopathogenic T-cells and regulation of autoimmunity. 6th Annual Meeting of the Federation-of-Clinical-Immunology-Societies**  
 Xiao, S., Najafian, N., Reddy, J., Albin, M., Zhu, C., Anderson, A., Zhang, Z., Gutierrez, C., Sobel, R., Umetsu, D., Yagita, H., Akiba, H., Sayegh, et al  
 ACADEMIC PRESS INC ELSEVIER SCIENCE.2006: S44-S45
- **Treatment of autoimmune neuroinflammation with a synthetic tryptophan metabolite SCIENCE**  
 Platten, M., Ho, P. P., Youssef, S., Fontoura, P., Garren, H., Hur, E. M., Gupta, R., Lee, L. Y., Kidd, B. A., Robinson, W. H., Sobel, R. A., Selley, M. L., Steinman, et al  
 2005; 310 (5749): 850-855
- **A suppressive oligodeoxynucleotide enhances the efficacy of myelin cocktail/IL-4-tolerizing DNA vaccination and treats autoimmune disease JOURNAL OF IMMUNOLOGY**  
 Ho, P. P., Fontoura, P., Platten, M., Sobel, R. A., DeVoss, J. J., Lee, L. Y., Kidd, B. A., Tomooka, B. H., Capers, J., Agrawal, A., Gupta, R., Zernik, J., Yee, et al  
 2005; 175 (9): 6226-6234
- **Clonal expansion of IgA-positive plasma cells and axon-reactive antibodies in MS lesions JOURNAL OF NEUROIMMUNOLOGY**  
 Zhang, Y. P., Da, R. R., Hilgenberg, L. G., Tourtellotte, W. W., Sobel, R. A., Smith, M. A., Olek, M., Nagra, R., Sudhir, G., van den Noort, S., Qin, Y. F.  
 2005; 167 (1-2): 120-130
- **CD226 is specifically expressed on the surface of Th1 cells and regulates their expansion and effector functions JOURNAL OF IMMUNOLOGY**  
 Dardalhon, V., Schubart, A. S., Reddy, J., Meyers, J. H., Monney, L., Sabatos, C. A., Ahuja, R., Nguyen, K., Freeman, G. J., Greenfield, E. A., Sobel, R. A., Kuchroo, V. K.  
 2005; 175 (3): 1558-1565
- **Tim-2 regulates T helper type 2 responses and autoimmunity JOURNAL OF EXPERIMENTAL MEDICINE**  
 Chakravarti, S., Sabatos, C. A., Xiao, S., Illes, Z., Cha, E. K., Sobel, R. A., Zheng, X. X., Strom, T. B., Kuchroo, V. K.  
 2005; 202 (3): 437-444
- **Axon reactive B cells clonally expanded in the cerebrospinal fluid of patients with multiple sclerosis JOURNAL OF CLINICAL IMMUNOLOGY**  
 Zhang, Y. P., Da, R. R., Guo, W. Z., Ren, H. M., Hilgenberg, L. G., Sobel, R. A., Tourtellotte, W. W., Smith, M. A., Olek, M., Gupta, S., Robertson, R. T., Nagra, R., van den Noort, et al  
 2005; 25 (3): 254-264
- **Lipid microarrays detect diverse anti-lipid antibodies in MS and EAE: Sulfatide immunization exacerbates EAE**  
 Kanter, J. L., Narayana, S., Ho, P., Sobel, R., Steinman, L., Robinson, W. H.  
 FEDERATION AMER SOC EXP BIOL.2005: A1441
- **Ephrin A receptors and ligands in lesions and normal-appearing white matter in multiple sclerosis BRAIN PATHOLOGY**  
 Sobel, R. A.

2005; 15 (1): 35-45

- **Immunity to the extracellular domain of Nogo-A modulates experimental autoimmune encephalomyelitis** *JOURNAL OF IMMUNOLOGY*  
 Fontoura, P., Ho, P. P., DeVoss, J., Zheng, B. H., Lee, B. J., Kidd, B. A., Garren, H., Sobel, R. A., Robinson, W. H., Tessier-Lavigne, M., Steinman, L.  
 2004; 173 (11): 6981-6992
- **Myelin proteolipid protein-specific CD4(+) CD25(+) regulatory cells mediate genetic resistance to experimental autoimmune encephalomyelitis** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
 Reddy, J., Illes, Z., Zhang, X. M., Encinas, J., Pyrdol, J., Nicholson, L., Sobel, R. A., Wucherpfennig, K. W., Kuchroo, V. K.  
 2004; 101 (43): 15434-15439
- **PD-L1-deficient mice show that PD-L1 on T cells, antigen-presenting cells, and host tissues negatively regulates T cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
 Latchman, Y. E., Liang, S. C., Wu, Y., Chernova, T., Sobel, R. A., Klemm, M., Kuchroo, V. K., Freeman, G. J., Sharpe, A. H.  
 2004; 101 (29): 10691-10696
- **IL-10 plays an important role in the homeostatic regulation of the autoreactive repertoire in naive mice** *JOURNAL OF IMMUNOLOGY*  
 Anderson, A. C., Reddy, J., Nazareno, R., Sobel, R. A., Nicholson, L. B., Kuchroo, V. K.  
 2004; 173 (2): 828-834
- **Loss of T-bet, but not STAT1, prevents the development of experimental autoimmune encephalomyelitis** *JOURNAL OF EXPERIMENTAL MEDICINE*  
 Bettelli, E., Sullivan, B., Szabo, S. J., Sobel, R. A., Glimcher, H., Kuchroo, V. K.  
 2004; 200 (1): 79-87
- **Dissimilar background genes control susceptibility to autoimmune disease in the context of different MHC haplotypes: NOD.H-2(s) congenic mice are relatively resistant to both experimental autoimmune encephalomyelitis and type 1 diabetes** *EUROPEAN JOURNAL OF IMMUNOLOGY*  
 Greve, B., Reddy, J., Waldner, H. P., Sobel, R. A., Kuchroo, V. K.  
 2004; 34 (7): 1828-1838
- **The diabetes susceptibility locus Idd5.1 on mouse chromosome 1 regulates ICOS expression and modulates murine experimental autoimmune encephalomyelitis** *JOURNAL OF IMMUNOLOGY*  
 Greve, B., Vijayakrishnan, L., Kubal, A., Sobel, R. A., Peterson, L. B., Wicker, L. S., Kuchroo, V. K.  
 2004; 173 (1): 157-163
- **Cytokine and inducible nitric oxide synthase mRNA expression during experimental murine cryptococcal meningoencephalitis** *INFECTION AND IMMUNITY*  
 Maffei, C. M., Mirels, L. F., Sobel, R. A., Clemons, K. V., Stevens, D. A.  
 2004; 72 (4): 2338-2349
- **IFN-inducible protein 10/CXC chemokine ligand 10-independent induction of experimental autoimmune encephalomyelitis** *JOURNAL OF IMMUNOLOGY*  
 Klein, R. S., Izikson, L., Means, T., Gibson, H. D., Lin, E., Sobel, R. A., Weiner, H. L., Luster, A. D.  
 2004; 172 (1): 550-559
- **Somatic instability of the NF2 gene in Schwannomatosis** *ARCHIVES OF NEUROLOGY*  
 Kaufman, D. L., Heinrich, B. S., Willett, C., Perry, A., Finseth, F., Sobel, R. A., MacCollin, M.  
 2003; 60 (9): 1317-1320
- **Recovery from EAE is associated with decreased survival of encephalitogenic T cells in the CNS of B7-1/B7-2-deficient mice** *EUROPEAN JOURNAL OF IMMUNOLOGY*  
 Chang, T. T., Sobel, R. A., Wei, T., Ransohoff, R. M., Kuchroo, V. K., Sharpe, A. H.  
 2003; 33 (7): 2022-2032
- **Myelin oligodendrocyte glycoprotein-specific T cell receptor transgenic mice develop spontaneous autoimmune optic neuritis** *JOURNAL OF EXPERIMENTAL MEDICINE*  
 Bettelli, E., Pagany, M., Weiner, H. L., Linington, C., Sobel, R. A., Kuchroo, A. K.  
 2003; 197 (9): 1073-1081
- **Mild hypothermia inhibits nuclear factor-kappa B translocation in experimental stroke** *JOURNAL OF CEREBRAL BLOOD FLOW AND METABOLISM*  
 Han, H. S., Karabiyikoglu, M., Kelly, S., Sobel, R. A., Yenari, M. A.  
 2003; 23 (5): 589-598

- **Multiple elements of the allergic arm of the immune response modulate autoimmune demyelination** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Pedotti, R., DeVoss, J. J., Youssef, S., Mitchell, D., Wedemeyer, J., Madanat, R., Garren, H., Fontoura, P., Tsai, M., GALLI, S. J., Sobel, R. A., Steinman, L. 2003; 100 (4): 1867-1872
- **A murine model of coccidioidal meningitis** *101st General Meeting of the American-Society-for-Microbiology*  
Kamberi, P., Sobel, R. A., Clemons, K. V., Stevens, D. A., Pappagianis, D., Williams, P. L.  
UNIV CHICAGO PRESS.2003: 453-60
- **Efficacy of amphotericin B or itraconazole in a murine model of central nervous system Aspergillus infection** *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY*  
Chiller, T. M., Sobel, R. A., Luque, J. C., Clemons, K. V., Stevens, D. A.  
2003; 47 (2): 813-815
- **Gene therapy and hypothermia for stroke treatment** *6th International Conference on Neuroprotective Agents*  
Yenari, M. A., Zhao, H., Giffard, R. G., Sobel, R. A., Sapolsky, R. M., Steinberg, G. K.  
NEW YORK ACAD SCIENCES.2003: 54- 68
- **Mild hypothermia inhibits nuclear factor-kappa B translocation in experimental stroke** *28th International Stroke Conference*  
Han, H. S., Karabiyikoglu, M., Kelly, S., Sobel, R., Yenari, M. A.  
LIPPINCOTT WILLIAMS & WILKINS.2003: 301-
- **Levels of matrix metalloproteinase-9 within cerebrospinal fluid in a rabbit model of coccidioidal meningitis and vasculitis** *41st Interscience Conference on Antimicrobial Agents and Chemotherapy*  
Williams, P. L., Leib, S. L., Kamberi, P., Leppert, D., Sobel, R. A., Bifare, Y. D., Clemons, K. V., Stevens, D. A.  
UNIV CHICAGO PRESS.2002: 1692-95
- **The HMG-CoA reductase inhibitor, atorvastatin, promotes a Th2 bias and reverses paralysis in central nervous system autoimmune disease** *NATURE*  
Youssef, S., Stuve, O., Patarroyo, J. C., Ruiz, P. J., Radosevich, J. L., Hur, E. M., Bravo, M., Mitchell, D. J., Sobel, R. A., Steinman, L., Zamvil, S. S.  
2002; 420 (6911): 78-84
- **Genetic background determines the requirement for B7 costimulation in induction of autoimmunity** *EUROPEAN JOURNAL OF IMMUNOLOGY*  
Jabs, C., Greve, B., Chang, T. T., Sobel, R. A., Sharpe, A. H., Kuchroo, V. K.  
2002; 32 (9): 2687-2697
- **Development of a murine model of cerebral aspergillosis** *39th Annual Meeting of the Infectious-Diseases-Society-of-America*  
Chiller, T. M., Luque, J. C., Sobel, R. A., Farrokhsad, K., Clemons, K. V., Stevens, D. A.  
OXFORD UNIV PRESS INC.2002: 574-77
- **Interferon-beta counteracts inflammatory mediator-induced effects on brain endothelial cell tight junction molecules - Implications for multiple sclerosis** *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*  
Kuruganti, P. A., Hinojoza, J. R., Eaton, M. J., Ehmann, U. K., Sobel, R. A.  
2002; 61 (8): 710-724
- **Efficacy of intravenous liposomal amphotericin B (AmBisome) against coccidioidal meningitis in rabbits** *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY*  
Clemons, K. V., Sobel, R. A., Williams, P. L., Pappagianis, D., Stevens, D. A.  
2002; 46 (8): 2420-2426
- **A novel cell surface protein, TIM-3, expressed on Th1 cells promotes macrophage activation and enhances autoimmune disease**  
Monney, L., Sabatos, C., Gaglia, J., Ryu, A., Greenfield, E., Sobel, R., Freeman, G., Kuchroo  
FEDERATION AMER SOC EXP BIOL.2002: A1062
- **Cytotoxic T lymphocyte antigen-4 (CTLA-4) limits the expansion of encephalitogenic T cells in experimental autoimmune encephalomyelitis (EAE)-resistant BALB/c mice** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Hurwitz, A. A., Sullivan, T. J., Sobel, R. A., Allison, J. P.  
2002; 99 (5): 3013-3017
- **Th1-specific cell surface protein Tim-3 regulates macrophage activation and severity of an autoimmune disease** *NATURE*  
Monney, L., Sabatos, C. A., Gaglia, J. L., Ryu, A., Waldner, H., Chernova, T., Manning, S., Greenfield, E. A., Coyle, A. J., Sobel, R. A., Freeman, G. J., Kuchroo, V. K.

2002; 415 (6871): 536-541

- **White matter extracellular matrix chondroitin sulfate/dermatan sulfate proteoglycans in multiple sclerosis** *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*

Sobel, R. A., Ahmed, A. S.

2001; 60 (12): 1198-1207

- **The influence of the proinflammatory cytokine, osteopontin, on autoimmune demyelinating disease** *SCIENCE*

Chabas, D., Baranzini, S. E., Mitchell, D., Bernard, C. C., Rittling, S. R., Denhardt, D. T., Sobel, R. A., Lock, C., Karpur, M., Pedotti, R., Heller, R., Oksenberg, J. R., Steinman, et al

2001; 294 (5547): 1731-1735

- **Mild hypothermia increases Bcl-2 protein expression following global cerebral ischemia** *MOLECULAR BRAIN RESEARCH*

Zhang, Z. J., Sobel, R. A., Cheng, D. Y., Steinberg, G. K., Yenari, M. A.

2001; 95 (1-2): 75-85

- **Reversal of early diffusion-weighted magnetic resonance imaging abnormalities does not necessarily reflect tissue salvage in experimental cerebral ischemia** *STROKE*

Ringer, T. M., Neumann-Haefelin, T., Sobel, R. A., Moseley, M. E., Yenari, M. A.

2001; 32 (10): 2362-2369

- **Cerebrospinal fluid (CSF) interferon gamma (IFN-gamma) concentrations after gene therapy, with intrathecal (IT) or intracerebral (IC) administration**

Clemons, K. V., Chiller, T. M., Kamberi, P., Sobel, R. A., Brummer, E., Kolls, J., Stevens, D. A.

OXFORD UNIV PRESS INC.2001: 1167-67

- **Development of a murine model of cerebral aspergillosis**

Chiller, T. M., Luque, J. C., Farrokhsad, K., Sobel, R. A., Clemons, K. V., Stevens, D. A.

OXFORD UNIV PRESS INC.2001: 1193-93

- **Thiopalmitoylation of myelin proteolipid protein epitopes enhances immunogenicity and encephalitogenicity** *JOURNAL OF IMMUNOLOGY*

Greer, J. M., Denis, B., Sobel, R. A., Trifilieff, E.

2001; 166 (11): 6907-6913

- **Rapamycin inhibits adoptive transfer and prevents relapses in experimental autoimmune encephalomyelitis**

Senices, M., Dussault, N., Harding, K., Sobel, R., O'Hara, R. M., Collins, M., Young, D.

FEDERATION AMER SOC EXP BIOL.2001: A1209

- **Role of B7-1 and B7-2 in the induction of experimental autoimmune encephalomyelitis (EAE)**

Jabs, C., Sobel, R. A., Sharpe, A. H., Kuchroo, V. K.

FEDERATION AMER SOC EXP BIOL.2001: A1064

- **Elevated osteopontin transcripts in MS brain libraries and its role in the development of progressive versus remitting autoimmune encephalomyelitis**

Chabas, D. E., Steinman, L., Rittling, S. R., Sobel, R., Lock, C., Mitchell, D., Karpur, M., Pedotti, R., Heller, R., Oksenberg, J., Baranzini, S. E.

FEDERATION AMER SOC EXP BIOL.2001: A354-A354

- **Identification of genetic loci associated with paralysis, inflammation and weight loss in mouse experimental autoimmune encephalomyelitis** *INTERNATIONAL IMMUNOLOGY*

Encinas, J. A., Lees, M. B., Sobel, R. A., Symonowicz, C., Weiner, H. L., Seidman, C. E., Seidman, J. G., Kuchroo, V. K.

2001; 13 (3): 257-264

- **Comparative toxicities and pharmacokinetics of intrathecal lipid (amphotericin B colloidal dispersion) and conventional deoxycholate formulations of amphotericin B in rabbits** *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY*

Clemons, K. V., Sobel, R. A., Williams, P. L., Stevens, D. A.

2001; 45 (2): 612-615

- **Cytotoxic T lymphocyte antigen-4 (CTLA-4) regulates the size, reactivity, and function of a primed pool of CD4(+) T cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

Kuhns, M. S., Epshteyn, V., Sobel, R. A., Allison, L. P.

2000; 97 (23): 12711-12716

- **Comparative efficacies of terbinafine and fluconazole in treatment of experimental coccidioidal meningitis in a rabbit model** *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY*

- Sorensen, K. N., Sobel, R. A., Clemons, K. V., Calderon, L., Howell, K. J., Irani, P. R., Pappagianis, D., Williams, P. L., Stevens, D. A.  
2000; 44 (11): 3087-3091
- **Role of IL-10 in invasive aspergillosis: increased resistance of IL-10 gene knockout mice to lethal systemic aspergillosis** *CLINICAL AND EXPERIMENTAL IMMUNOLOGY*  
Clemons, K. V., Grunig, G., Sobel, R. A., Mirels, L. F., Rennick, D. M., Stevens, D. A.  
2000; 122 (2): 186-191
  - **Genetic and epigenetic influence on EAE phenotypes induced with different encephalitogenic peptides** *JOURNAL OF NEUROIMMUNOLOGY*  
Sobel, R. A.  
2000; 108 (1-2): 45-52
  - **Experimental histoplasmosis in mice treated with anti-murine interferon-gamma antibody and in interferon-gamma gene knockout mice** *MICROBES AND INFECTION*  
Clemons, K. V., Darbonne, W. C., Curnutte, J. T., Sobel, R. A., Stevens, D. A.  
2000; 2 (9): 997-1001
  - **Comparison of fluconazole and itraconazole in a rabbit model of coccidioidal meningitis** *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY*  
Sorensen, K. N., Sobel, R. A., Clemons, K. V., Pappagianis, D., Stevens, D. A., Williams, P. L.  
2000; 44 (6): 1512-1517
  - **Fulminant spontaneous autoimmunity of the central nervous system in mice transgenic for the myelin proteolipid protein-specific T cell receptor** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Waldner, H., Whitters, M. J., Sobel, R. A., Collins, M., Kuchroo, V. K.  
2000; 97 (7): 3412-3417
  - **B cells and antibodies in the pathogenesis of myelin injury in semliki forest virus encephalomyelitis** *CELLULAR IMMUNOLOGY*  
Smith-Norowitz, T. A., Sobel, R. A., Mokhtarian, F.  
2000; 200 (1): 27-35
  - **Toxicity of LY303366, an echinocandin antifungal, in mice pretreated with glucocorticoids** *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY*  
Clemons, K. V., Sobel, R. A., Stevens, D. A.  
2000; 44 (2): 378-381
  - **Studies in B7-deficient mice reveal a critical role for B7 costimulation in both induction and effector phases of experimental autoimmune encephalomyelitis** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Chang, T. T., Jabs, C., Sobel, R. A., Kuchroo, V. K., Sharpe, A. H.  
1999; 190 (5): 733-740
  - **A selective role of calcineurin A alpha in synaptic depotentiation in hippocampus** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Zhuo, M., Zhang, W., Son, H., Mansuy, I., Sobel, R. A., Seidman, J., Kandel, E. R.  
1999; 96 (8): 4650-4655
  - **Endothelial cell class II major histocompatibility complex molecule expression in stereotactic brain biopsies of patients with acute inflammatory/demyelinating conditions** *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*  
van der Maesen, K., Hinojoza, J. R., Sobel, R. A.  
1999; 58 (4): 346-358
  - **Molecular mimicry between a viral peptide and a myelin oligodendrocyte glycoprotein peptide induces autoimmune demyelinating disease in mice** *JOURNAL OF NEUROIMMUNOLOGY*  
Mokhtarian, F., Zhang, Z. G., Shi, Y., Gonzales, E., Sobel, R. A.  
1999; 95 (1-2): 43-54
  - **B cell-deficient mice have increased susceptibility to HSV-1 encephalomyelitis and mortality** *JOURNAL OF NEUROIMMUNOLOGY*  
BELAND, J. L., Sobel, R. A., Adler, H., Del-Pan, N. C., Rimm, I. J.  
1999; 94 (1-2): 122-126
  - **QTL influencing autoimmune diabetes and encephalomyelitis map to a 0.15-cM region containing I2** *NATURE GENETICS*  
Encinas, J. A., Wicker, L. S., Peterson, L. B., Mukasa, A., Teuscher, C., Sobel, R., Weiner, H. L., Seidman, C. E., Seidman, J. G., Kuchroo, V. K.  
1999; 21 (2): 158-160

- **In the absence of T cells, natural killer cells protect from mortality due to HSV-1 encephalitis** *JOURNAL OF NEUROIMMUNOLOGY*  
Adler, H., BELAND, J. L., Del-Pan, N. C., Kobzik, L., Sobel, R. A., Rimm, I. J.  
1999; 93 (1-2): 208-213
- **Expansion by self antigen is necessary for the induction of experimental autoimmune encephalomyelitis by T cells primed with a cross-reactive environmental antigen** *JOURNAL OF IMMUNOLOGY*  
Carrizosa, A. M., Nicholson, L. B., Farzan, M., Southwood, S., Sette, A., Sobel, R. A., Kuchroo, V. K.  
1998; 161 (7): 3307-3314
- **IL-10 is critical in the regulation of autoimmune encephalomyelitis as demonstrated by studies of IL-10- and IL-4-deficient and transgenic mice** *JOURNAL OF IMMUNOLOGY*  
Bettelli, E., Das, M. P., Howard, E. D., Weiner, H. L., Sobel, R. A., Kuchroo, V. K.  
1998; 161 (7): 3299-3306
- **A model of coccidioidal meningoencephalitis and cerebrospinal vasculitis in the rabbit** *JOURNAL OF INFECTIOUS DISEASES*  
Williams, P. L., Sobel, R. A., Sorensen, K. N., Clemons, K. V., Shuer, L. M., Royaltey, S. S., Yao, Y., Pappagianis, D., Lutz, J. E., Reed, C., River, M. E., Lee, B. C., Bhatti, et al  
1998; 178 (4): 1217-1221
- **Endothelial cell integrin laminin receptor expression in multiple sclerosis lesions** *AMERICAN JOURNAL OF PATHOLOGY*  
Sobel, R. A., Hinojoza, J. R., Maeda, A., Chen, M.  
1998; 153 (2): 405-415
- **Effects of phorbol myristate acetate (PMA) on functions of macrophages and microglia in vitro** *NEUROCHEMICAL RESEARCH*  
Smith, M. E., van der Maesen, K., Somera, F. P., Sobel, R. A.  
1998; 23 (3): 427-434
- **Altered peptide ligand modulation of experimental allergic encephalomyelitis: immune responses within the CNS** *JOURNAL OF NEUROIMMUNOLOGY*  
Santambrogio, L., Lees, M. B., Sobel, R. A.  
1998; 81 (1-2): 1-13
- **Fas- and FasL-deficient mice are resistant to induction of autoimmune encephalomyelitis** *JOURNAL OF IMMUNOLOGY*  
Waldner, H., Sobel, R. A., HOWARD, E., Kuchroo, V. K.  
1997; 159 (7): 3100-3103
- **Quantitative histologic factors for grouping childhood infratentorial neuroglial tumors** *PEDIATRIC PATHOLOGY & LABORATORY MEDICINE*  
Gilles, F. H., Sobel, E. L., Leviton, A., Tavare, C. J., HEDLEYWHYTE, E. T., Rorke, L., Adelman, L., Sobel, R.  
1997; 17 (5): 809-834
- **November 1996 - Premature baby with lethargy and coma** *BRAIN PATHOLOGY*  
Hevner, R., Sobel, R. A.  
1997; 7 (2): 839-840
- **Encephalitogenicity of murine, but not bovine, DM20 in SJL mice is due to a single amino acid difference in the immunodominant encephalitogenic epitope** *NEUROCHEMICAL RESEARCH*  
Greer, J. M., Klinguer, C., Trifilieff, E., Sobel, R. A., Lees, M. B.  
1997; 22 (4): 541-547
- **Inhibition of nitric oxide synthase for treatment of experimental autoimmune encephalomyelitis** *JOURNAL OF IMMUNOLOGY*  
Brenner, T., Brocke, S., Szafer, F., Sobel, R. A., Parkinson, J. F., Perez, D. H., Steinman, L.  
1997; 158 (6): 2940-2946
- **Specific blockade of CTLA-4/B7 interactions results in exacerbated clinical and histologic disease in an actively-induced model of experimental allergic encephalomyelitis** *JOURNAL OF NEUROIMMUNOLOGY*  
Hurwitz, A. A., Sullivan, T. J., Krummel, M. F., Sobel, R. A., Allison, J. P.  
1997; 73 (1-2): 57-62
- **Genetic analysis of susceptibility to experimental autoimmune encephalomyelitis in a cross between SJL/J and B10.S mice** *JOURNAL OF IMMUNOLOGY*  
Encinas, J. A., Lees, M. B., Sobel, R. A., Symonowicz, C., Greer, J. M., Shovlin, C. L., Weiner, H. L., Seidman, C. E., Seidman, J. G., Kuchroo, V. K.  
1996; 157 (5): 2186-2192

- **Antigen-driven peripheral immune tolerance: Suppression of experimental autoimmune encephalomyelitis and collagen-induced arthritis by aerosol administration of myelin basic protein or type II collagen** *CELLULAR IMMUNOLOGY*  
ALSabbagh, A., Nelson, P. A., Akselband, Y., Sobel, R. A., Weiner, H. L.  
1996; 171 (1): 111-119
- **Production and role of cytokines in the CNS of mice with acute viral encephalomyelitis** *JOURNAL OF NEUROIMMUNOLOGY*  
Mokhtarian, F., Wesselingh, S. L., Choi, S., Maeda, A., Griffin, D. E., Sobel, R. A., Grob, D.  
1996; 66 (1-2): 11-22
- **Clinicopathologic correlations in calcineurin A alpha-deficient mice.**  
Sobel, R. A., Zhang, W., Wiederrecht, G., Liu, J. S., Lu, Y., Seidman, C. E., Nakanishi, N., Seidman, J. G.  
LIPPINCOTT WILLIAMS & WILKINS.1996: 61-61
- **Matrix metalloproteinases in the normal human central nervous system, microglial nodules, and multiple sclerosis lesions** *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*  
Maeda, A., Sobel, R. A.  
1996; 55 (3): 300-309
- **AN ALTERED PEPTIDE LIGAND MEDIATES IMMUNE DEVIATION AND PREVENTS AUTOIMMUNE ENCEPHALOMYELITIS** *IMMUNITY*  
Nicholson, L. B., Greer, J. M., Sobel, R. A., Lees, M. B., Kuchroo, V. K.  
1995; 3 (4): 397-405
- **B7-1 AND B7-2 COSTIMULATORY MOLECULES ACTIVATE DIFFERENTIALLY THE TH1/TH2 DEVELOPMENTAL PATHWAYS - APPLICATION TO AUTOIMMUNE-DISEASE THERAPY** *CELL*  
Kuchroo, V. K., Das, M. P., BROWN, J. A., Ranger, A. M., Zamvil, S. S., Sobel, R. A., Weiner, H. L., Nabavi, N., Glimcher, L. H.  
1995; 80 (5): 707-718
- **VITRONECTIN AND INTEGRIN VITRONECTIN RECEPTOR LOCALIZATION IN MULTIPLE-SCLEROSIS LESIONS** *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*  
Sobel, R. A., Chen, M., Maeda, A., Hinojoza, J. R.  
1995; 54 (2): 202-213
- **THE PATHOLOGY OF MULTIPLE-SCLEROSIS** *NEUROLOGIC CLINICS*  
Sobel, R. A.  
1995; 13 (1): 1-21
- **Treatment of autoimmune diseases by oral tolerance to autoantigens.** *Advances in experimental medicine and biology*  
Weiner, H. L., Miller, A., Khoury, S. J., Zhang, Z. J., Al-Sabbagh, A., Brod, S. A., Lider, O., Higgins, P., Sobel, R., Matsui, M.  
1995; 371B: 1217-1223
- **Treatment of autoimmune diseases by oral tolerance to autoantigens** *7th International Congress of Mucosal Immunology*  
Weiner, H. L., Miller, A., Khoury, S. J., Zhang, Z. J., ALSabbagh, A., Brod, S. A., Lider, O., Higgins, P., Sobel, R., Matsui, M., Sayegh, M., Carpenter, C., Eisenbarth, et al  
PLENUM PRESS DIV PLENUM PUBLISHING CORP.1995: 1217-1223
- **HISTOLOGIC FEATURE RELIABILITY IN CHILDHOOD NEURAL TUMORS** *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*  
Gilles, F. H., Sobel, E. L., Leviton, A., Tavare, C. J., HEDLEYWHYTE, E. T., BLANK, W. F., FULLING, K. H., BLAIR, J. D., deMello, D., Sotrel, A., Orsini, E. N., Isaacs, H., Rorke, et al  
1994; 53 (6): 559-571
- **A SINGLE TCR ANTAGONIST PEPTIDE INHIBITS EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS MEDIATED BY A DIVERSE T-CELL REPERTOIRE** *JOURNAL OF IMMUNOLOGY*  
Kuchroo, V. K., Greer, J. M., Kaul, D., Ishioka, G., Franco, A., Sette, A., Sobel, R. A., Lees, M. B.  
1994; 153 (7): 3326-3336
- **MINIREVIEW - AUTOIMMUNE RESPONSES TO MYELIN PROTEOLIPID PROTEIN** *NEUROCHEMICAL RESEARCH*  
Sobel, R. A., Greer, J. M., Kuchroo, V. K.  
1994; 19 (8): 915-921

- **T-CELL RECEPTOR (TCR) USAGE DETERMINES DISEASE SUSCEPTIBILITY IN EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS - STUDIES WITH TCR V-BETA-8.2 TRANSGENIC MICE** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Kuchroo, V. K., Collins, M., ALSabbagh, A., Sobel, R. A., Whitters, M. J., Zamvil, S. S., Dorf, M. E., Hafler, D. A., Seidman, J. G., Weiner, H. L., Rimm, I. J. 1994; 179 (5): 1659-1664
- **A T-CELL RECEPTOR (TCR) ANTAGONIST PEPTIDE PREVENTS EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) MEDIATED BY A DIVERSE T-CELL REPERTOIRE**  
Kuchroo, V. K., Greer, J. M., Kaul, D., ISHOKA, G., Franco, A., Sette, A., Sobel, R. A., Lees, M. B. FEDERATION AMER SOC EXP BIOL. 1994: A198-A198
- **IMMUNOLOCALIZATION OF PROTEOLIPID PROTEIN PEPTIDE 103-116 IN MYELIN** *JOURNAL OF NEUROSCIENCE RESEARCH*  
Sobel, R. A., Greer, J. M., Isaac, J., Fondren, G., Lees, M. B. 1994; 37 (1): 36-43
- **THE AGNOR TECHNIQUE, PCNA IMMUNOHISTOCHEMISTRY, AND DNA-PLOIDY IN THE EVALUATION OF CHOROID-PLEXUS BIOPSY SPECIMENS** *AMERICAN JOURNAL OF CLINICAL PATHOLOGY*  
Centeno, B. A., Louis, D. N., Kupsky, W. J., Preffer, F. I., Sobel, R. A. 1993; 100 (6): 690-696
- **CYTOKINES AND ADHESION MOLECULES CONTRIBUTE TO THE ABILITY OF MYELIN PROTEOLIPID PROTEIN-SPECIFIC T-CELL CLONES TO MEDIATE EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS** *JOURNAL OF IMMUNOLOGY*  
Kuchroo, V. K., Martin, C. A., Greer, J. M., Ju, S. T., Sobel, R. A., Dorf, M. E. 1993; 151 (8): 4371-4382
- **SUPPRESSION OF EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS BY ORAL-ADMINISTRATION OF MYELIN BASIC-PROTEIN .6. SUPPRESSION OF ADOPTIVELY TRANSFERRED DISEASE AND DIFFERENTIAL-EFFECTS OF ORAL VS INTRAVENOUS TOLERIZATION** *JOURNAL OF NEUROIMMUNOLOGY*  
Miller, A., Zhang, Z. J., Sobel, R. A., ALSabbagh, A., Weiner, H. L. 1993; 46 (1-2): 73-82
- **T-CELL RESPONSES TO MYELIN BASIC-PROTEIN IN EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS-RESISTANT BALB/C MICE** *JOURNAL OF NEUROIMMUNOLOGY*  
ABROMSONLEEMAN, S., Hayashi, M., Martin, C., Sobel, R., ALSabbagh, A., Weiner, H., Dorf, M. E. 1993; 45 (1-2): 89-101
- **DIVERSE T-CELL RECEPTOR V-BETA GENE USAGE IN THE CENTRAL-NERVOUS-SYSTEM IN EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS** *JOURNAL OF IMMUNOLOGY*  
Bell, R. B., Lindsey, J. W., Sobel, R. A., Hodgkinson, S., Steinman, L. 1993; 150 (9): 4085-4092
- **IMMUNOLOCALIZATION OF PROTEOLIPID PROTEIN (PLP) PEPTIDE 103-116 IN OLIGODENDROCYTES AND MYELIN**  
Sobel, R. A., Greer, J. M., Isaac, J., Fondren, G., Lees, M. B. LIPPINCOTT WILLIAMS & WILKINS.1993: 287-87
- **VESTIBULAR (ACOUSTIC) SCHWANNOMAS - HISTOLOGIC FEATURES IN NEUROFIBROMATOSIS-2 AND IN UNILATERAL CASES** *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*  
Sobel, R. A. 1993; 52 (2): 106-113
- **GROWTH OF HUMAN ACOUSTIC NEUROMAS, NEUROFIBROMAS AND SCHWANNOMAS IN THE SUBRENAL CAPSULE AND SCIATIC-NERVE OF THE NUDE-MOUSE** *JOURNAL OF NEURO-Oncology*  
Lee, J. K., Sobel, R. A., Chiocca, E. A., Kim, T. S., Martuza, R. L. 1992; 14 (2): 101-112
- **CHILDHOOD BRAIN-TUMORS THAT OCCUPY MORE THAN ONE COMPARTMENT AT PRESENTATION - MULTIPLE COMPARTMENT TUMORS** *JOURNAL OF NEURO-Oncology*  
Gilles, F. H., Leviton, A., HEDLEYWHYTE, E. T., Sobel, E., Tavare, C. J., SOBEL, R. S., Rorke, L. B. 1992; 14 (1): 45-56
- **THE IMMUNOPATHOLOGY OF ACUTE EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS INDUCED WITH MYELIN PROTEOLIPID PROTEIN - T-CELL RECEPTORS IN INFLAMMATORY LESIONS** *JOURNAL OF IMMUNOLOGY*

- Sobel, R. A., Kuchroo, V. K.  
1992; 149 (4): 1444-1451
- IDENTIFICATION AND CHARACTERIZATION OF A 2ND ENCEPHALITOGENIC DETERMINANT OF MYELIN PROTEOLIPID PROTEIN (RESIDUES 178-191) FOR SJL MICE *JOURNAL OF IMMUNOLOGY*  
Greer, J. M., Kuchroo, V. K., Sobel, R. A., Lees, M. B.  
1992; 149 (3): 783-788
- A 45-YEAR-OLD MAN WITH CONFUSION, SEIZURES, AND FEW FOCAL FINDINGS - METASTATIC MALIGNANT-MELANOMA, ENCEPHALITIC FORM, IN LEPTOMENINGES AND CEREBRAL-CORTEX *NEW ENGLAND JOURNAL OF MEDICINE*  
Gruber, M. L., Davis, K. R., Sobel, R. A.  
1992; 327 (2): 107-116
- MYELIN PROTEOLIPID PROTEIN - MINIMUM SEQUENCE REQUIREMENTS FOR ACTIVE INDUCTION OF AUTOIMMUNE ENCEPHALOMYELITIS IN SWR/J AND SJL/J MICE *JOURNAL OF NEUROIMMUNOLOGY*  
Tuohy, V. K., Sobel, R. A., Lu, Z. J., Laursen, R. A., Lees, M. B.  
1992; 39 (1-2): 67-74
- EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS MEDIATED BY CLONED T-CELLS SPECIFIC FOR A SYNTHETIC PEPTIDE OF MYELIN PROTEOLIPID PROTEIN - FINE SPECIFICITY AND T-CELL RECEPTOR V-BETA USAGE *JOURNAL OF IMMUNOLOGY*  
Kuchroo, V. K., Sobel, R. A., Laning, J. C., Martin, C. A., Greenfield, E., Dorf, M. E., Lees, M. B.  
1992; 148 (12): 3776-3782
- TEMPORAL TRENDS AMONG CHILDHOOD BRAIN-TUMOR BIOPSIES *JOURNAL OF NEURO-ONCOLOGY*  
Gilles, F. H., Sobel, E. L., Leviton, A., HEDLEYWHYTE, E. T., Tavare, C. J., Adelman, L., Sobel, R. A.  
1992; 13 (2): 137-149
- EPIDEMIOLOGY OF SEIZURES IN CHILDREN WITH BRAIN-TUMORS *JOURNAL OF NEURO-ONCOLOGY*  
Gilles, F. H., Sobel, E., Leviton, A., HEDLEYWHYTE, E. T., Tavare, C. J., Adelman, L. S., Sobel, R. A.  
1992; 12 (1): 53-68
- ANTIGEN-DRIVEN PERIPHERAL IMMUNE TOLERANCE - SUPPRESSION OF ORGAN-SPECIFIC AUTOIMMUNE-DISEASES BY ORAL-ADMINISTRATION OF AUTOANTIGENS *ANNALS OF THE NEW YORK ACADEMY OF SCIENCES*  
Weiner, H. L., Zhang, Z. J., Khouri, S. J., Miller, A., ALSabbagh, A., Brod, S. A., Lider, O., Higgins, P., Sobel, R., NUSSENBLATT, R. B., Hafler, D. A.  
1991; 636: 227-232
- A 71-YEAR-OLD WOMAN WITH A SENSORIMOTOR NEUROPATHY AND RADIOGRAPHICALLY DEMONSTRABLE ABNORMALITIES - MIXED INFLAMMATORY DEMYELINATING AND AXONAL SENSORIMOTOR PERIPHERAL NEUROPATHY (QUESTIONABLE PARANEOPLASTIC, QUESTIONABLE MULTIFACTORIAL) - NEUROGENIC ATROPHY OF SKELETAL-MUSCLE, SEVERE - RENAL-CELL CARCINOMA, CLEAR-CELL TYPE - (DIABETES-MELLITUS, TYPE-II) (HYPOTHYROIDISM) *NEW ENGLAND JOURNAL OF MEDICINE*  
Leifer, D., Sobel, R. A., SHAHANI, B., Ferrucci, J. T., Platika, D.  
1991; 325 (24): 1723-1735
- INDUCTION OF EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS BY MYELIN PROTEOLIPID-PROTEIN-SPECIFIC T-CELL CLONES AND SYNTHETIC PEPTIDES *PATHOBIOLOGY*  
Kuchroo, V. K., Sobel, R. A., Yamamura, T., Greenfield, E., Dorf, M. E., Lees, M. B.  
1991; 59 (5): 305-312
- A 35-YEAR-OLD MAN WITH CHANGED MENTAL STATUS AND MULTIPLE INTRACEREBRAL LESIONS - TERTIARY SYPHILIS, WITH PARENCHYMATOUS NEUROSYPHILIS AND FIBROSIS OF LEFT TESTIS *NEW ENGLAND JOURNAL OF MEDICINE*  
Samuels, M. A., Sobel, R. A., Carboneau, R., RICHARDSON, E. P., Cohen, M. E., Gruber, M. L.  
1991; 325 (6): 414-422
- A 27-YEAR-OLD MAN WITH ATAXIA AND A LEFT CEREBELLAR MASS 13 YEARS AFTER RESECTION AND RADIATION-THERAPY OF A LEFT PARIETAL ASTROCYTOMA - ASTROCYTOMA, GRADE 3-3, LEFT CEREBELLAR HEMISPHERE, 13 YEARS AFTER RADIATION-THERAPY OF GANGLIOGLIOMA, LEFT PARIETAL LOBE *NEW ENGLAND JOURNAL OF MEDICINE*  
Black, P. M., Louis, D. N., Davis, K. R., Sobel, R. A., Huang, P. L., Gruber, M. L.  
1991; 324 (23): 1651-1659
- SUPPRESSION OF EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS BY ORAL-ADMINISTRATION OF MYELIN ANTIGENS .4. SUPPRESSION OF CHRONIC RELAPSING DISEASE IN THE LEWIS RAT AND STRAIN-13 GUINEA-PIG *ANNALS OF NEUROLOGY*  
Brod, S. A., ALSabbagh, A., Sobel, R. A., Hafler, D. A., Weiner, H. L.

1991; 29 (6): 615-622

● **DIFFERENTIATION OF EXPERIMENTAL WHITE MATTER LESIONS USING MULTIPARAMETRIC MAGNETIC-RESONANCE MEASUREMENTS INVESTIGATIVE RADIOLOGY**

ZAMAROCZY, D., Schluesener, H. J., Jolesz, F. A., Sobel, R. A., COLUCCI, V. M., Weiner, H. L., Sandor, T.

1991; 26 (4): 317-324

● **BENIGN SPINAL NERVE SHEATH TUMORS - THEIR OCCURRENCE SPORADICALLY AND IN NEUROFIBROMATOSIS TYPE-1 AND TYPE-2 JOURNAL OF NEUROSURGERY**

Halliday, A. L., Sobel, R. A., Martuza, R. L.

1991; 74 (2): 248-253

● **PARENTAL MHC MOLECULE HAPLOTYPE EXPRESSION IN (SJL/J X SWR)F1 MICE WITH ACUTE EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS INDUCED WITH 2 DIFFERENT SYNTHETIC PEPTIDES OF MYELIN PROTEOLIPID PROTEIN JOURNAL OF IMMUNOLOGY**

Sobel, R. A., Tuohy, V. K., Lees, M. B.

1991; 146 (2): 543-549

● **PSEUDOPSAMMOMATOUS MENINGIOMA WITH ELEVATED SERUM CARCINOEMBRYONIC ANTIGEN - A TRUE SECRETORY MENINGIOMA - CASE-REPORT JOURNAL OF NEUROSURGERY**

Louis, D. N., Hamilton, A. J., Sobel, R. A., Ojemann, R. G.

1991; 74 (1): 129-132

● **ANTIGEN-DRIVEN PERIPHERAL IMMUNE TOLERANCE - SUPPRESSION OF ORGAN-SPECIFIC AUTOIMMUNE-DISEASES BY ORAL-ADMINISTRATION OF AUTOANTIGENS CONF ON ANTIGEN AND CLONE-SPECIFIC IMMUNOREGULATION**

Weiner, H. L., Zhang, Z. J., Khoury, S. J., Miller, A., ALSabbagh, A., Brod, S. A., Lider, O., Higgins, P., Sobel, R., NUSSENBLATT, R. B., Hafler, D. A. NEW YORK ACADEMY SCIENCES.1991: 227-232

● **ACUTE EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS IN SJL J MICE INDUCED BY A SYNTHETIC PEPTIDE OF MYELIN PROTEOLIPID PROTEIN ANNALS OF THE NEW YORK ACADEMY OF SCIENCES**

Sobel, R. A., Tuohy, V. K., Lu, Z. J., Laursen, R. A., Lees, M. B.

1990; 605: 453-455

● **A PREVIOUSLY HEALTHY 41-YEAR-OLD MAN WITH MENINGOENCEPHALITIS AND THE RAPID DEVELOPMENT OF COMA - SUBACUTE DEMYELINATING AND NECROTIZING RHOMBENCEPHALOPATHY, CONSISTENT WITH ACUTE MULTIPLE-SCLEROSIS NEW ENGLAND JOURNAL OF MEDICINE**

Hafler, D. A., Sobel, R. A., Young, T., Wityk, R. J.

1990; 323 (16): 1123-1135

● **INHIBITION OF GROWTH AND ANGIOGENESIS OF HUMAN NEUROFIBROSARCOMA BY HEPARIN AND HYDROCORTISONE JOURNAL OF NEUROSURGERY**

Lee, J. K., Choi, B., Sobel, R. A., Chiocca, E. A., Martuza, R. L.

1990; 73 (3): 429-435

● **ACUTE EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS IN SJL/J MICE INDUCED BY A SYNTHETIC PEPTIDE OF MYELIN PROTEOLIPID PROTEIN JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY**

Sobel, R. A., Tuohy, V. K., Lu, Z. J., Laursen, R. A., Lees, M. B.

1990; 49 (5): 468-479

● **MAJOR HISTOCOMPATIBILITY COMPLEX ANTIGEN EXPRESSION IN THE AFFECTED TISSUES IN AMYOTROPHIC-LATERAL-SCLEROSIS ANNALS OF NEUROLOGY**

Lampson, L. A., KUSHNER, P. D., Sobel, R. A.

1990; 28 (3): 365-372

● **INTERCELLULAR-ADHESION MOLECULE-1 (ICAM-1) IN CELLULAR IMMUNE-REACTIONS IN THE HUMAN CENTRAL-NERVOUS-SYSTEM AMERICAN JOURNAL OF PATHOLOGY**

Sobel, R. A., MITCHELL, M. E., Fondren, G.

1990; 136 (6): 1309-1316

● **ACUTE EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS IN SJL J MICE INDUCED BY A SYNTHETIC PEPTIDE OF MYELIN PROTEOLIPID PROTEIN CONF ON MYELINATION AND DYSGYELINATION**

Sobel, R. A., Tuohy, V. K., Lu, Z. J., Laursen, R. A., Lees, M. B.

NEW YORK ACAD SCIENCES.1990: 453-455

- **IMPLANTATION OF HUMAN MENINGIOMAS INTO THE SUBRENAL CAPSULE OF THE NUDE- MOUSE - A MODEL FOR STUDIES OF TUMOR-GROWTH** *JOURNAL OF NEUROSURGERY*  
Medhkour, A., VanRoey, M., Sobel, R. A., Fingert, H. J., Lee, J. K., Martuza, R. L.  
1989; 71 (4): 545-550
- **A 60-YEAR-OLD MAN WITH GRANULOMATOUS INTERSTITIAL NEPHRITIS FOLLOWED BY NEUROLOGIC DISEASE - END-STAGE RENAL-DISEASE (GRANULOMATOUS INTERSTITIAL NEPHRITIS, 8 YEARS BEFORE DEATH) - INFARCTS, MULTIPLE, OLD, CEREBELLUM AND BRAIN-STEM, SECONDARY TO LISTERIA-MONOCYTOGENES RHOMBENCEPHALITIS, 8 YEARS BEFORE DEATH, WITH BRAIN-STEM CENTRAL AXONOMAS AND INFERIOR OLIVARY HYPERSTROPHY, NEW ENGLAND JOURNAL OF MEDICINE**  
Brown, R. H., Sobel, R. A., Davis, K. R., RICHARDSON, E. P., Pomerantz, R. J., Colvin, R. B.  
1989; 321 (11): 739-750
- **FIBRONECTIN IN MULTIPLE-SCLEROSIS LESIONS** *AMERICAN JOURNAL OF PATHOLOGY*  
Sobel, R. A., MITCHELL, M. E.  
1989; 135 (1): 161-168
- **A 77-YEAR-OLD MAN WITH BACK PAIN AND ACUTE INABILITY TO WALK - CHRONIC OSTEOMYELITIS OF SPINE, WITH INTERVERTEBRAL DISKITIS (T3-T4) AND EPIDURAL ABSCESS (DUE TO STAPHYLOCOCCUS-AUREUS)** *NEW ENGLAND JOURNAL OF MEDICINE*  
Borges, L. F., Rosenberg, A. E., Davis, K. R., SCULLY, R. E., Mansfield, F. L., Rosenberg, A. E., Cohen, M. E., Sobel, R. A.  
1989; 320 (24): 1610-1618
- **IDENTIFICATION OF AN ENCEPHALITOGENIC DETERMINANT OF MYELIN PROTEOLIPID PROTEIN FOR SJL MICE** *JOURNAL OF IMMUNOLOGY*  
Tuohy, V. K., Lu, Z. J., Sobel, R. A., Laursen, R. A., Lees, M. B.  
1989; 142 (5): 1523-1527
- **MICROGLIAL AND NEURAL DIFFERENTIATION IN HUMAN TERATOMAS** *ACTA NEUROPATHOLOGICA*  
Sangruchi, T., Sobel, R. A.  
1989; 78 (3): 258-263
- **INDUCTION OF HYPERACUTE BRAIN INFLAMMATION AND DEMYELINATION BY ACTIVATED ENCEPHALITOGENIC T-CELLS AND A MONOCLONAL-ANTIBODY SPECIFIC FOR A MYELIN OLIGODENDROCYTE GLYCOPROTEIN AUTOIMMUNITY**  
Schluesener, H. J., Lider, O., Sobel, R. A.  
1989; 2 (3): 265-273
- **T-LYMPHOCYTE SUBSETS IN THE MULTIPLE-SCLEROSIS LESION** *RESEARCH IN IMMUNOLOGY*  
Sobel, R. A.  
1989; 140 (2): 208-211
- **A SYNTHETIC PEPTIDE FROM MYELIN PROTEOLIPID PROTEIN INDUCES EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS** *JOURNAL OF IMMUNOLOGY*  
Tuohy, V. K., Lu, Z. J., Sobel, R. A., Laursen, R. A., Lees, M. B.  
1988; 141 (4): 1126-1130
- **DEMYELINATING EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) IN THE RAT - TREATMENT WITH A MONOCLONAL-ANTIBODY AGAINST ACTIVATED T-CELLS** *JOURNAL OF NEUROIMMUNOLOGY*  
Schluesener, H. J., Sobel, R. A., Weiner, H. L.  
1988; 18 (4): 341-351
- **THE IMMUNOPATHOLOGY OF ACUTE EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS .5. A LIGHT MICROSCOPIC AND ULTRASTRUCTURAL IMMUNOHISTOCHEMICAL ANALYSIS OF FIBRONECTIN AND FIBRINOGEN** *AMERICAN JOURNAL OF PATHOLOGY*  
Sobel, R. A., Schneeberger, E. E., Colvin, R. B.  
1988; 131 (3): 547-558
- **THE 2H4 (CD45R) ANTIGEN IS SELECTIVELY DECREASED IN MULTIPLE-SCLEROSIS LESIONS** *JOURNAL OF IMMUNOLOGY*  
Sobel, R. A., Hafler, D. A., Castro, E. E., Morimoto, C., Weiner, H. L.  
1988; 140 (7): 2210-2214

- **A 72-YEAR-OLD MAN WITH HEADACHES AND MULTIPLE CRANIAL-NERVE PALPIES - WEGNERS GRANULOMATOSIS INVOLVING PARA-NASAL SINUSES AND LEPTOMENINGES NEW ENGLAND JOURNAL OF MEDICINE**  
Parker, S. W., Sobel, R. A., Davis, K. R., Hochberg, F. H., Adams, R. D., FIENBERG, R., Picard, E. H.  
1988; 318 (12): 760-768
- **MYELIN PROTEOLIPID PROTEIN-INDUCED EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS - VARIATIONS OF DISEASE EXPRESSION IN DIFFERENT STRAINS OF MICE JOURNAL OF IMMUNOLOGY**  
Tuohy, V. K., Sobel, R. A., Lees, M. B.  
1988; 140 (6): 1868-1873
- **A 27-YEAR-OLD MAN WITH ACUTE MYELOMONOCYTIC LEUKEMIA IN REMISSION AND REPEATED INTRACRANIAL HEMORRHAGES - (MYELOMONOCYTIC LEUKEMIA, ACUTE, TREATED) - MYCOTIC-ANEURYSMS OF BASILAR AND VERTEBRAL ARTERIES DUE TO FUNGUS (MORPHOLOGICALLY CONSISTENT WITH ASPERGILLUS SPECIES), WITH RECENT AND REMOTE SUBARACHNOID HEMORRHAGE AND SECONDARY HYDROCEPHALUS - HYPOXIC ENCEPHALOPATHY, SEVERE - CEREBRAL EDEMA, SEVERE, WITH BILATERAL UNCAL AND CEREBELLAR TONSIL HERNIATIONS AND FOCAL NECROSIS OF RIGHT TEMPORAL-LOBE AND MIDBRAINU NEW ENGLAND JOURNAL OF MEDICINE**  
Kowall, N. W., Sobel, R. A., Davis, K. R., RICHARDSON, E. P., Ziskind, A. A., Kwiatkowski, D. J.  
1988; 318 (7): 427-440
- **MAJOR HISTOCOMPATIBILITY COMPLEX MOLECULE EXPRESSION IN THE HUMAN CENTRAL NERVOUS-SYSTEM - IMMUNOHISTOCHEMICAL ANALYSIS OF 40 PATIENTS JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY**  
Sobel, R. A., AMES, M. B.  
1988; 47 (1): 19-28
- **Immunohistochemical analysis of suppressor-inducer and helper-inducer T cells in multiple sclerosis brain tissue. Annals of the New York Academy of Sciences**  
Sobel, R. A., Hafler, D. A., Castro, E. E., Morimoto, C., Weiner, H. L.  
1988; 540: 306-308
- **Susceptibility to PLP-induced EAE is regulated by non-H-2 genes. Annals of the New York Academy of Sciences**  
Tuohy, V. K., Sobel, R. A., Lees, M. B.  
1988; 540: 709-711
- **A MONOCLONAL-ANTIBODY AGAINST A MYELIN OLIGODENDROCYTE GLYCOPROTEIN INDUCES RELAPSES AND DEMYELINATION IN CENTRAL-NERVOUS-SYSTEM AUTOIMMUNE-DISEASE JOURNAL OF IMMUNOLOGY**  
Schluesener, H. J., Sobel, R. A., Linington, C., Weiner, H. L.  
1987; 139 (12): 4016-4021
- **HIV ANTIGEN IN BRAINS OF PATIENTS WITH AIDS ANNALS OF NEUROLOGY**  
GABUZDA, D. H., Sobel, R. A.  
1987; 22 (5): 668-668
- **THE IMMUNOPATHOLOGY OF ACUTE EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS .4. AN ULTRASTRUCTURAL IMMUNOCYTOCHEMICAL STUDY OF CLASS-II MAJOR HISTOCOMPATIBILITY COMPLEX MOLECULE (IA) EXPRESSION JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY**  
Sobel, R. A., NATALE, J. M., Schneeberger, E. E.  
1987; 46 (3): 239-249
- **A 31-YEAR-OLD ASTHMATIC WOMAN WITH RAPIDLY PROGRESSIVE MULTISYSTEM DISEASE - PERIARTERITIS-NODOSA, ACUTE AND SUBACUTE, WITH INVOLVEMENT OF SMALL AND LARGE-INTESTINE, LIVER, PANCREAS, ADRENAL-GLANDS, KIDNEYS, LYMPH-NODES, SKELETAL-MUSCLE, CAUDA-EQUINA, AND PERIPHERAL-NERVES NEW ENGLAND JOURNAL OF MEDICINE**  
Weinblatt, M. E., Mark, E. J., Mills, J. A., FIENBERG, R., Sobel, R. A., RICHARDSON, E. P.  
1987; 316 (18): 1139-1147
- **ANTI-T CELL MONOCLONAL-ANTIBODIES INVIVO .2. MODULATION OF ACUTE AND CHRONIC EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) IN GUINEA-PIGS JOURNAL OF IMMUNOLOGY**  
Sobel, R. A., BLANCHETTE, B. W., Russo, M. A., Williams, A. M., Colvin, R. B.  
1987; 138 (8): 2507-2513
- **ANTI-T CELL MONOCLONAL-ANTIBODIES INVIVO .1. INHIBITION OF DELAYED-HYPERSENSITIVITY BUT NOT CUTANEOUS BASOPHIL HYPERSENSITIVITY REACTIONS JOURNAL OF IMMUNOLOGY**  
Sobel, R. A., HANZAKOS, J. L., BLANCHETTE, B. W., Williams, A. M., DELLAPELLE, P., Colvin, R. B.

1987; 138 (8): 2500-2506

• **THE PHARMACOKINETICS AND TOXICITY OF MURINE MONOCLONAL-ANTIBODIES AND OF GELONIN CONJUGATES OF THESE ANTIBODIES** *INTERNATIONAL JOURNAL OF IMMUNOPHARMACOLOGY*

Scott, C. F., Lambert, J. M., Goldmacher, V. S., Blattler, W. A., Sobel, R., Schlossman, S. F., Benacerraf, B.  
1987; 9 (2): 211-225

• **THE INSITU CELLULAR IMMUNE-RESPONSE IN ACUTE HERPES-SIMPLEX ENCEPHALITIS** *AMERICAN JOURNAL OF PATHOLOGY*

Sobel, R. A., Collins, A. B., Colvin, R. B., Bhan, A. K.  
1986; 125 (2): 332-338

• **AN 11-YEAR-OLD GIRL WITH A RASH, ATAXIA, AND CRANIAL-NERVE PALSYES - (JUVENILE) PERIARTERITIS-NODOSA (KAWASAKI SYNDROME), WITH INVOLVEMENT OF SUBCUTANEOUS (AND CEREBRAL) ARTERIES** *NEW ENGLAND JOURNAL OF MEDICINE*

OUELLETTE, E. M., FIENBERG, R., NEW, P. F., SCULLY, R. E., Tepper, R. I., Dooling, E. C., Ferrucci, J. T., Sobel, R. A.  
1986; 315 (18): 1143-1154

• **RESPONDER STRAIN-SPECIFIC ENHANCEMENT OF ENDOTHELIAL AND MONONUCLEAR CELL IA IN DELAYED-HYPERSensitivity REACTIONS IN (STRAIN 2 X STRAIN 13)F1 GUINEA-PIGS** *JOURNAL OF IMMUNOLOGY*

Sobel, R. A., Colvin, R. B.  
1986; 137 (7): 2132-2138

• **IMMUNOHISTOCHEMICAL IDENTIFICATION OF HTLV-III ANTIGEN IN BRAINS OF PATIENTS WITH AIDS** *ANNALS OF NEUROLOGY*

GABUZDA, D. H., Ho, D. D., DELAMONTE, S. M., Hirsch, M. S., ROTA, T. R., Sobel, R. A.  
1986; 20 (3): 289-295

• **CEREBRAL GRANULOMATOUS-ANGIITIS ASSOCIATED WITH ISOLATION OF HUMAN T-LYMPHOTROPIC VIRUS TYPE-III FROM THE CENTRAL-NERVOUS-SYSTEM** *ANNALS OF NEUROLOGY*

Yankner, B. A., Skolnik, P. R., SHOUKIMAS, G. M., GABUZDA, D. H., Sobel, R. A., Ho, D. D.  
1986; 20 (3): 362-364

• **A 62-YEAR-OLD HAITIAN WOMAN WITH STROKES, RENAL-DISEASE, AND ABDOMINAL-PAIN - CEREBRAL INFARCTS, SUBACUTE, EXTENSIVE, INVOLVING PREDOMINANTLY RIGHT CEREBRAL HEMISPHERE, RIGHT BASAL GANGLIA, AND THALAMUS** *NEW ENGLAND JOURNAL OF MEDICINE*

Caplan, L. R., Davis, K. R., Ascah, K. J., RICHARDSON, E. P., Haydock, S., Sobel, R. A.  
1986; 315 (9): 567-577

• **A 55-YEAR-OLD WOMAN WITH A PROGRESSIVE NEUROLOGIC DISORDER - MALIGNANT-LYMPHOMA (B-CELL TYPE), BRAIN (RIGHT-FRONTAL-LOBE WHITE MATTER)** *NEW ENGLAND JOURNAL OF MEDICINE*

Stakes, J. W., Sobel, R. A., Davis, K. R., Black, P. M., Hochberg, F. H.  
1986; 314 (23): 1498-1507

• **CHRONIC EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS AND ANTIBODY-RESPONSES IN RABBITS IMMUNIZED WITH BOVINE PROTEOLIPID APOPROTEIN** *JOURNAL OF NEUROIMMUNOLOGY*

VANDERVEEN, R. C., Sobel, R. A., Lees, M. B.  
1986; 11 (4): 321-333

• **THE IMMUNOPATHOLOGY OF CHRONIC EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS INDUCED IN RABBITS WITH BOVINE PROTEOLIPID PROTEIN** *JOURNAL OF IMMUNOLOGY*

Sobel, R. A., VANDERVEEN, R. C., Lees, M. B.  
1986; 136 (1): 157-163

• **MICROCYSTIC MENINGIOMA OF THE FALX CEREBRI WITH NUMEROUS PALISADED STRUCTURES - AN UNUSUAL HISTOLOGICAL PATTERN MIMICKING SCHWANNOMA** *ACTA NEUROPATHOLOGICA*

Sobel, R. A., Michaud, J.  
1985; 68 (3): 256-258

• **THE IMMUNOPATHOLOGY OF EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) .3. DIFFERENTIAL INSITU EXPRESSION OF STRAIN-13 IA ON ENDOTHELIAL AND INFLAMMATORY CELLS OF (STRAIN 2 X STRAIN 13)F1 GUINEA-PIGS WITH EAE** *JOURNAL OF IMMUNOLOGY*

Sobel, R. A., Colvin, R. B.  
1985; 134 (4): 2333-2337

- Pre-inflammatory expression of fibronectin (Fn) and Ia in acute experimental allergic encephalomyelitis (EAE): modulation of endothelial cells (EC) in the immune response detected by quantitative immunoperoxidase studies using monoclonal antibodies (Mab). *Progress in clinical and biological research*  
Sobel, R. A., BLANCHETTE, B. W., Colvin, R. B.  
1984; 146: 81-86
- CENTRAL NERVOUS-SYSTEM COCCIDIOIDOMYCOSIS - A CLINICOPATHOLOGIC STUDY OF TREATMENT WITH AND WITHOUT AMPHOTERICIN-B *HUMAN PATHOLOGY*  
Sobel, R. A., Ellis, W. G., Nielsen, S. L., Davis, R. L.  
1984; 15 (10): 980-995
- THE IMMUNOPATHOLOGY OF EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS .2. ENDOTHELIAL-CELL IA INCREASES PRIOR TO INFLAMMATORY CELL INFILTRATION *JOURNAL OF IMMUNOLOGY*  
Sobel, R. A., BLANCHETTE, B. W., Bhan, A. K., Colvin, R. B.  
1984; 132 (5): 2402-2407
- THE IMMUNOPATHOLOGY OF EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS .1. QUANTITATIVE-ANALYSIS OF INFLAMMATORY CELLS INSITU *JOURNAL OF IMMUNOLOGY*  
Sobel, R. A., BLANCHETTE, B. W., Bhan, A. K., Colvin, R. B.  
1984; 132 (5): 2393-2401
- THE KINETICS OF HUMAN GLIOBLASTOMAS MAINTAINED IN AN ORGAN-CULTURE SYSTEM - AN INVITRO AUTORADIOGRAPHIC STUDY *ACTA NEUROPATHOLOGICA*  
Hess, J. R., Michaud, J., Sobel, R. A., Herman, M. M., Rubinstein, L. J.  
1983; 61 (1): 1-9
- A 25-YEAR-OLD WOMAN WITH INCREASINGLY FREQUENT HEADACHES - PINEOCYTOMA *NEW ENGLAND JOURNAL OF MEDICINE*  
Maciewicz, R. J., Davis, K. R., Sobel, R. A., Martin, J. B., JENNINGS, M. T., Wray, S. H., SONSTEIN, F. M., PRYITT, A. A., Levine, D. N.  
1983; 309 (9): 542-549
- A 41-YEAR-OLD WOMAN WITH SPASTIC TETRAPARESIS AND SHORT STATURE - MUCOPOLYSACCHARIDOSIS, TYPE-VI, MILD FORM (MAROTEAUX-LAMY SYNDROME) *NEW ENGLAND JOURNAL OF MEDICINE*  
Poser, C. M., Sobel, R. A., Halperin, J. J., OOT, R. F., SCULLY, R. E., Delong, G. R., Ojemann, R. G., Kolodny, E. H.  
1983; 309 (18): 1109-1117
- LEUKOENCEPHALOPATHY IN PATIENTS TREATED WITH AMPHOTERICIN-B METHYL-ESTER *JOURNAL OF INFECTIOUS DISEASES*  
Ellis, W. G., Sobel, R. A., Nielsen, S. L.  
1982; 146 (2): 125-137
- APOPLEXY IN A PROLACTIN MICROADENOMA LEADING TO REMISSION OF GALACTORRHEA AND AMENORRHEA *SURGICAL NEUROLOGY*  
CORKILL, G., HANSON, F. W., Sobel, R. A., KELLER, T. M.  
1981; 15 (2): 114-115
- GLIAL FIBRILLARY ACIDIC PROTEIN IN HEPATIC-ENCEPHALOPATHY  
Sobel, R. A., DeArmond, S. J., Forno, L. S., Eng, L. F.  
AMER ASSN NEUROPATHOLOGISTS INC.1981: 322-22
- GLIAL FIBRILLARY ACIDIC PROTEIN IN HEPATIC-ENCEPHALOPATHY - AN IMMUNOHISTOCHEMICAL STUDY *JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY*  
Sobel, R. A., DeArmond, S. J., Forno, L. S., Eng, L. F.  
1981; 40 (6): 625-632
- RUBINSTEIN-TAYBI SYNDROME AND NASOPHARYNGEAL RHABDOMYOSARCOMA *JOURNAL OF PEDIATRICS*  
Sobel, R. A., Woerner, S.  
1981; 99 (6): 1000-1001
- BUERGERS DISEASE INVOLVING THE CELIAC ARTERY *HUMAN PATHOLOGY*  
Sobel, R. A., Ruebner, B. H.  
1979; 10 (1): 112-115