JONATHAN SILVER RUTCHIK, MD, MPH, FACOEM, FAAN FULL PROFESSOR- VOLUNTEER, UCSF, DEPT MEDICINE, SCHOOL OF MEDICINE Neurology and Electromyography, Neurotoxicology, Occupational and Environmental Medicine 35 Miller Avenue, #331, Mill Valley, CA 94941

TEL: 415-381-3133; FAX: 415-381-3131; ČELL: 415-606-1465 Email: Jsrutch@neoma.com; http://www.NEOMA.com

PROFESSIONAL TRAINING, EDUCATION AND HONORS

BOSTON UNIVERSITY MEDICAL CENTER, BOSTON, MA.

RESIDENCY TRAINING IN ENVIRONMENTAL AND OCCUPATIONAL MEDICINE

July 1995-June 1997

DEPARTMENT OF LABOR, OSHA, WASHINGTON, DC.

Internship; Office of Occupational Medicine

Summer 1996

CLEAN HARBORS, INC. BRAINTREE, MA.

Fall 1996

<u>Corporate medicine internship</u>; consultant to environmental services and hazardous waste company.

BOSTON UNIVERSITY LABORATORIES

Fall and Spring 1996-7

Corporate internship re medical surveillance program for workers exposed to dioxins and polyaromatic hydrocarbons.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MA.

Spring 1997

Clinical Elective: Department of Environmental Medical Services, Robert McCunney, MD, MPH.

Clinical occupational medicine including asbestos physicals. Projects on diagnosis, treatment and neurophysiology related to repetitive strain injury and ergonomics; workers' compensation and return to work systems; and latex allergies.

BETH ISRAEL-DEACONESS MEDICAL CENTER

Spring 1997

NEUROPHYSIOLOGY LABORATORY, DEPT OF NEUROLOGY, BOSTON, MA...

Electromyography training. Under the direction of Seward Rutkove, MD.

BOSTON UNIVERSITY SCHOOL OF PUBLIC HEALTH, BOSTON, MA. MASTER'S OF PUBLIC HEALTH

July 1995 to May 1997

BOSTON UNIVERSITY MEDICAL CENTER, BOSTON, MA.

CLINICAL FELLOWSHIP IN ENVIRONMENTAL AND OCCUPATIONAL NEUROLOGY

July 1995-June 1996

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY. CLINICAL FELLOWSHIP IN ENVIRONMENTAL MEDICINE

July 1995 to June 1997

MOUNT SINAI MEDICAL CENTER, NY, NY. RESIDENCY TRAINING IN NEUROLOGY July 1992 to June 1995

ST. LUKE'S-ROOSEVELT HOSPITAL CENTER, ST. LUKE'S DIVISION, NY, NY

June 1990 to July 1991

INTERNAL MEDICINE INTERNSHIP

HAHNEMANN MEDICAL COLLEGE, PHILADELPHIA, PA.

August 1986 to May 1990

DOCTOR OF MEDICINE

COLUMBIA COLLEGE IN THE CITY OF NEW YORK, NY, NY.

August 1982 to June 1986

BACHELOR OF ARTS. DEAN'S LIST. 1982 and 1984

COLUMBIA COLLEGE OF PHYSICIANS AND SURGEONS. New York, NY FELLOWSHIP AT THE H. HOUSTON MERRITT MUSCLE RESEARCH CENTER

Summers 1984, 1985

ACADEMIC AND RESEARCH POSITIONS

UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO.

August 2000 to present

<u>FULL PROFESSOR</u>. VOLUNTEER. DEPT MEDICINE. DIV OF OCC. AND ENV. MEDICINE. SCHOOL OF MEDICINE

*promoted 2024

WORLD HEALTH ORGANIZATION (WHO)

July 1999

VISITING SCIENTIST, INTERNATIONAL POISON CONTROL SERVICE (IPCS).

BOSTON UNIVERSITY, SCHOOL OF MEDICINE, BOSTON, MA.

July 1998 to 2000

<u>ADJUNCT CLINICAL INSTRUCTOR, DEPT OF NEUROLOGY</u>

BOSTON UNIVERSITY, SCHOOL OF PUBLIC HEALTH, BOSTON, MA.

LECTURER, DEPT OF ENVIRONMENTAL HEALTH

1998 to 1999.

COLUMBIA UNIVERSITY, SCHOOL OF PUBLIC HEALTH, NY, NY.

LECTURER, DEPT OF ENVIRONMENTAL HEALTH

1999 to 2000

BOARD CERTIFICATIONS AND PROFESSIONAL AFFILIATIONS

American Board of Preventive Medicine (Occupational and Environmental Medicine). BOARD CERTIFIED DIPLOMATE. #024329, 2001. RECERTIFIED 2020.

American Board of Psychiatry and Neurology (Neurology).

BOARD CERTIFIED DIPLOMATE. #44166, 1997. RECERTIFIED DECEMBER 2017.

California Qualified Medical Examiner, #927110. 2001 to present.

The American Academy of Neurology, 1992 to present. FELLOW STATUS 2016

The American Academy of Neuromuscular and Electrodiagnostic Medicine, 2005 to present.

The American College of Occupational and Environmental Medicine. 1995 to present. FELLOW STATUS ACQUIRED 2012.

Western Occupational and Environmental Medicine Association, August 2000 to present.

California Society of Industrial Medicine and Surgery. 2000 to present

Society of Toxicology. 2006 to present.

The Movement Disorders Society: #11216. 2008 to present

California Medical License: # G85804

Massachusetts Medical License: #81427.

New York Medical License: # 186145.

New Mexico Medical License: #MD2013-0828

Idaho Medical License: # M-12198

EMPLOYMENT EXPERIENCE

NEOMA. Offices in SF, Richmond, Petaluma, Sacramento and Eureka, CAJanuary 1999 to present
NEUROLOGY, ENVIRONMENTAL AND OCCUPATIONAL MEDICINE ASSOCIATES.

Clinical evaluations and treatment, including electromyography, and disability and independent medical evaluations of individuals and populations with suspected neurological illness or injury from workplace injuries or chemical exposure. Also, consulting to industry and legal organizations, academic writing and research.

CID MANAGEMENT. WORKER COMPENSATION UTILIZATION REVIEW COMPANY

NATIONAL MEDICAL DIRECTOR.

Summer 2004 to Dec 2014

CONCENTRA OCCUPATIONAL HEALTH. SAN FRANCISCO, CA. INDEPENDENT CONSULTANT NEUROLOGIST AND ELECTROMYOGRAPHER.

October 2001 to 2002 Northern CA clinics.

KAISER PERMANANTE OF CALIFORNIA

August 2000 to 2001

PART TIME STAFF PHYSICIAN. DIVISION OF OCCUPATIONAL AND ENVIRONMENTAL MEDICINE

INDUSTRIAL MEDICAL ASSOCIATES, WHITE PLAINS, NY

January to August 2000

PART TIME PHYSICIAN, NEUROLOGY AND ENVIRONMENTAL AND OCCUPATIONAL MEDICINE

PRUDENTIAL INSURANCE COMPANY, PARSIPPANY, NJ
INDEPENDENT MEDICAL DISABILITY CONSULTANT

September 1997, occasional

TRAVELER'S INSURANCE COMPANY. WALNUT CREEK, CA

<u>CALIFORNIA MEDICAL DIRECTOR.</u> SYNCHRONY; WORKER'S COMPENSATION
AND SHORT AND LONG TERM DISABILITY PRODUCT.

March 2001 to 2005.

EMEDICINE, INTERNET NEUROLOGY TEXT, <u>WWW.EMEDICINE.COM</u> *MEDICAL EDITOR*, SECTION ON NEUROTOXICOLOGY

July 1999 to present

PROPEER RESOURCES
INDEPENDENT MEDICAL CONSULTANT

April 2000, occasional

DEPARTMENT OF LABOR, OSHA, WASHINGTON, DC.

July 1996, occasional

Internship in the Office of Occupational Medicine.

Participated in three projects under the direction of Melissa McDiarmid, MD, MPH, Director: the impact of the OSHA's Blood Borne Pathogens Standard on the incidence of Hepatitis B virus in health care workers; mercury toxicity in a Nevada gold mine; and the use of neurophysiological endpoints as a means to consider lowering the permissible exposure limit for carbon disulfide, mercury, manganese, toluene and other neurotoxins.

NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH CENTER FOR DISEASE CONTROL. CINCINNATI. OH.

July 1996, occasional

Consultant to government agency on human health hazard evaluations: (1) the association of asthma and headaches in a Connecticut submarine manufacturing company that uses an epoxy resin paint; (2) problems associated with carbon disulfide exposure in a Texas viscose rayon manufacturing company; (3) neurological effects from lead and arsenic in teachers who worked in a Utah school that had been built over a defunct mine and (4) neurological sequellae to mercury vapor in a Wisconsin mercury waste recycling plant.

OCCUPATIONAL HEALTH AND REHABILITATION, INC., BOSTON, MA.

October 1997-December 1998

MEDICAL DIRECTOR, DIVISION OF OCCUPATIONAL AND ENVIRONMENTAL NEUROLOGY

GENERAL ELECTRIC, AIRCRAFT ENGINE DIVISION, LYNN, MA.

CONSULTANT NEUROLOGIST AND ASSOCIATE MEDICAL CENTER DIRECTOR

October 1997-Dec. 1998

THE AGENCY FOR TOXIC SUBSTANCE AND DISEASE REGISTRY (ATSDR)

July 1995 to June 1997

CENTERS FOR DISEASE CONTROL AND PREVENTION.

Clinical Fellowship in Occupational and Environmental Medicine.

Funded two year fellowship entitled "Assessment of Integrity of Peripheral and Autonomic Nervous System Physiology in Persian Gulf Veterans." Co-sponsored by Boston Medical Center's Department of Neurology, (RG Feldman, MD); and The Environmental Hazards Center, (D Ozonoff, MD, MPH and RF White, PhD) of the VA Medical Center, Boston, MA.

January 2024

VETERAN'S ADMINISTRATION MEDICAL CENTER. BRONX, NY.

Emergency Room Physician. Evening and weekend duties.

Dec. 1993-July 1995

WORLD JOINT DISTRIBUTION COMMITTEE. CASABLANCA, MOROCCO.

March - June 1992

<u>Medical consultant</u>. Studied and proposed a program to improve a health care system for a dwindling population of Jews in six cities; urban and rural areas of this third world country. Served on the staff and studied the organization of a 110 bed convalescent-type home in Casablanca. All of work conducted in French.

NEURENTOX, INTERNATIONAL, INC. WASHINGTON, DC.

Nov 1991 to March 1992

<u>Physician- Researcher.</u> Worked with Peter G. Bernad, MD, MPH; clinical neurologist with interest in occupational medicine and toxicology. Responsible for clinical and research projects involving environmental and toxicological issues, medical- legal matters and electroencephalography with brain mapping.

US PUBLIC HEALTH SERVICE, ANCHORAGE AREA INDIAN HEALTH SERVICE BETHEL, ALASKA.

Sept. and October, 1991

<u>General Medical Officer</u>. One of approximately 20 physicians working in a facility with large outpatient and inpatient departments caring for Alaskan natives from villages in the Yukon- Kuskokwim Delta Region with a population exceeding 25,000. Work also included brief stays at primitive village clinics on the Bering Sea caring for pregnant patients, immunizing school children and the elderly, and examining walk-in patients.

US PUBLIC HEALTH SERVICE, ALBUQUERQUE AREA INDIAN HEALTH SERVICE ZUNI, NEW MEXICO.

July and August 1991

<u>General Medical Officer</u>. One of eight physicians working in a small primary care facility caring for a native population of approximately 8,000. Common pediatric, obstetric and gynecological, internal medicine, and minor surgical cases in this outpatient and inpatient setting.

COLUMBIA COLLEGE OF PHYSICIANS AND SURGEONS DEPARTMENT OF ANATOMY AND CELL BIOLOGY, NEW YORK, NY.

Fall 1984 through Spring 1986

Laboratory researcher. Studied the cooperativity of calcium in rabbit skeletal and human dystrophic muscle.

PUBLICATIONS (Available upon request)

Rutchik J and Ratner M. **Carbon Monoxide Toxicity**. In Lucchini R, editor. Occupational Neurotoxicology, Volume 7. Elsevier. 2022.

Rutchik J and Ratner M. Clinical Evaluation and Differential Diagnosis of Neurotoxic Disease. Occupational Neurotoxicology, Volume 7. Elsevier. 2022.

Rutchik J, Bowler Rosemarie M., and Ratner Marcia H., PhD, DABT. A Rare Case of Holmes Tremor in a Worker with Occupational Carbon Monoxide Poisoning. American Journal of Industrial Medicine. February 22, 2021

Rutchik J. Neurology. Medical Standards for New Employees. Department of Sanitation for New York City. Med-TOX.com. Published 2020.

Rutchik J. Neurology. Medical Standards for Previously Hired Employees. Department of Sanitation for New York City. Med-TOX.com. Published 2020.

Rutchik J, Ratner MH. Should Age at Onset of Parkinsonism be the End Point of Interest in Investigations of the Link Between Exosomal α-Synuclein and Manganese Exposure in Welders? J Occup Environ Med. 2019 Dec;61(12):e530-e531.

Rutchik J and Ratner M. Is it Possible for Late-Onset Schizophrenia to Masquerade as Manganese Psychosis? Journal Of Occupational and Environmental Medicine. April 2018: 60 (4), 207-209

Rutchik J. Tremor and Movement Disorders from Carbon Monoxide Exposure: Case report and Review of the literature. Abstract and Poster Presentation. Neurotoxicology and Teratology. May/ June 2015. NTX75.

Rutchik, J. Heavy Metals Neurotoxicity. In: Greenamyre JT, editor-in-chief. MedLink Neurology. San Diego: MedLink Corporation. Available at www.medlink.com. Last updated August, 2016

Rutchik J. Mercury Neuropathy. In: Greenamyre, JT editor-in-chief. MedLink Neurology. San Diego: MedLink Corporation. Available at www.medlink.com. Last Updated August 2016.

Rutchik J. Methylmercury and Neurotoxicity. Book Review. JOEM. January 2013 55(1)111.

Drescher O, Dewailly E, Krimholtz M, **Rutchik J.** 'Fishy' Make-up on the Hook for Mercury Exposure: A Case Series. West Indian Med J. 2013 Nov;62(8):770-2.

Rutchik J, Zheng W, Jiang Y, Mo X. How Does an Occupational Neurologist Assess Welders and Steelworkers for a Manganese-Induced Movement Disorder? An International Team's Experiences in Guanxi, China. JOEM 2012, October and November.

Rutchik, J. Heavy Metals and Industrial Dementia. In: Gilman S, editor-in-chief. MedLink Neurology. San Diego: MedLink Corporation. Available at www.medlink.com. Accessed 2010

Rutchik, JS. The Occupational Medicine Physician's Guide to *Neuropathy in the Workplace*. Journal of Occupational and Environmental Medicine. July 2009, 51, 3. Part Three of Three.

Rutchik JS. The Occupational Medicine Physician's Guide to *Neuropathy in the Workplace*. Journal of Occupational and Environmental Medicine. May 2009, 51, 3. Part Two of Three.

Rutchik JS. The Occupational Medicine Physician's Guide to *Neuropathy in the Workplace*. Journal of Occupational and Environmental Medicine. March 2009, 51, 3. Part One of Three.

Page 7 of 16 January 2024

Rutchik J. Clinical Neurological Evaluation of Patients with Multiple Exposures. 20th International Conference on Epidemiology in Occupational Health and the 10th International Symposium on Neurobehavioral Methods and Effects in Occupational and Environmental Health. 9-13 June 2008. Oral Presentation and Abstract. San Jose, Costa Rica

Screening Welders for Parkinsonism. Abstract and Oral Presentation. American Occupational Health Conference. American College of Occupational and Environmental Medicine. New York, NY. April 2008.

Rutchik J. Mercury Neuropathy. In: Gilman S, editor-in-chief. MedLink Neurology. San Diego: MedLink Corporation. Available at www.medlink.com. Edited 2011.

Rutchik J. (Peer Reviewer) In, ATDSR's, Case Studies in Environmental Medicine. Tetrachloroethylene. Us Health and Human Services. Updated Edition, 2008-2011

Rutchik J. (Peer Reviewer) In ATDSR's, Case Studies in Environmental Medicine. Toluene. US Health and Human Services. Updated Edition, 2008-2011

Rutchik J. Bowler R. Tremor and Neuropsychological Effects from Acute Carbon Monoxide Poisoning. International Neurotoxicology Association. 11th Meeting. Pacific Grove, CA. Poster Presentation. June 2007

Rutchik, J. Atypical Parkinsonism in a steel cutter with elevated lead levels. International Conference of Occupational Health. Milan, Italy. Oral Presentation. A 490. June 2006.

Jonathan S. Rutchik, MD, MPH, Xuean Mo, MD, Yueming Jiang, MD, MPH, and Wei Zhang, PhD Manganism or Parkinson's disease: Indications from six cases among Chinese welders and steel workers. Submitted for publication to Neurotoxic Metals: Lead, Mercury and Manganese: From Research to Prevention. Brescia, Italy. June 2006.

Rutchik, JS and Wittman RI Neurological Consequences of Carbon Monoxide Exposure. Pending submission for Publication. International Journal of Occupational and Environmental Health. 2006.

Neurological symptoms and chemical exposure; occupational, environmental or product; a challenge for the expert and attorney to share. BNA Legal Magazine, The Reporter, 2004.

Rutchik, J. Solvent Neurotoxity. In Philips, S and Krieger, G, eds. Clinics in Occupational and Environmental Medicine. WB Saunders. May 2004.

Rutchik, J. Heavy Metals and Industrial Dementia In: Gilman S, editor-in-chief. MedLink Neurology. San Diego: MedLink Corporation. Available at www.medlink.com. Accessed 2008

Rutchik, J. The evaluation of a patient with mold exposure and neurologic complaints. JSR. Claims Magazine. February 2003.

MCCullough JE, Dick R, Rutchik J. Chronic Mercury Exposure Examined with a Computer Based Tremor System. JOEM. (2001), 43, 3

Rutchik J. Organic Solvents. In Lutsep, HL editor in chief, Emedicine Neurology. www.emedicine.com, 2001. Edited 2007.

Rutchik J. Toxic Neuropathy. In Lutsep, HL editor in chief, Emedicine Neurology <u>www.emedicine.com</u>, 2001. Edited 2007.

Rutchik J. Occupational Slow Virus Disease. In Couturier A, ed. Occupational Infectious Diseases. Boston: OEM Health. Massachusetts: OEM Press. 1999.

January 2024

Rutchik JS. Hazards of Anatomical Pathology. In: McCunney RJ, ed. Medical Center Occupational Health and Safety. Philadelphia, PA: Lipincott, Williams and Wilkins. 1999.

Rutchik JS. Occupational and Environmental Neurology. In: Bowler R, ed. Occupational and Environmental Medicine Secrets. Philadelphia, PA: Hanley and Belfus. 1999.

Rutchik JS and Feldman RG. Tetrachloroethylene. In Feldman, RG. Occupational and Environmental Neurotoxicology. Philadelphia, PA: Lippincott-Raven. 1999.

Rutchik JS and Feldman RG. Carbon Disulfide. In Feldman, RG. Occupational and Environmental Neurotoxicology. Philadelphia, PA: Lippincott-Raven. 1999.

Rutchik JS and Feldman RG. Ethylene Oxide. In Feldman, RG. Occupational and Environmental Neurotoxicology. Philadelphia, PA: Lippincott-Raven. 1999.

Rutchik JS and Feldman RG. Xylene. In Feldman, RG. Occupational and Environmental Neurotoxicology. Philadelphia, PA: Lippincott-Raven. 1999.

Rutchik JS and Feldman RG. Exposure to Hazardous Chemicals. In Feldman, RG. Occupational and Environmental Neurotoxicology. Philadelphia, PA: Lippincott-Raven. 1999.

Rutchik JS, Rutkove S. Effect of Temperature on Motor Responses in Organophosphate Intoxication. Muscle and Nerve (1998), 21, 958-960.

Rutchik JS, Barbanel C and Boskiewicz B. Addressing Dioxins in the Workplace. Occupational and Environmental Medicine Report (1998); 12, 2.

Rutchik JS. An Environmental and Occupational Neurology Subspecialty. Neurology (1998), 50, 4, S4, A54

Rutchik JS. Neurological Sequellae from Occupational and Environmental Exposure to Chlorinated Ethylenes. Neurotoxicology. (1998); 19,3,473.

Rutchik JS. Neurological Sequellae from Chlorinated Ethylenes. Clinical Care Update. NAOHP. 10/27/97.

Rutchik JS. Toxicology of the Visual System. Journal of Occupational and Environmental Medicine (1997), 39,4, 356a.

Rutchik JS. Chronic Neurological Sequellae From An Acute Occupational Exposure to Lithium Salt: Case Report and Review of the Literature. (Manuscript submitted to Archives of Environmental Health Summer 1999)

Rutchik JS. Revising a Medical Surveillance Plan For A Hazardous Waste Company. (Submitted to OEM Press)

Rutchik JS, Richards KR. Toxicology of the Visual System: Industries and Populations. (Submitted to Archives of Environmental Health, Summer 1999)

Rutchik JS. Clinical Experiences of an Environmental and Occupational Neurology Program.*

Rutchik JS. Drug Use Rises in 1995 Among Youth. Medical Review Officer (MRO) Update (1996).

Rutchik JS. Neurology data collection from ICD-9-CM codes to encourage departmental statistical record keeping and analysis. Neurology (1995) 45 (Supp 4), 59P.

Simpson DM, Tagliati M, Rutchik JS, Reichler B, and Lorch G. Brainstem syndrome associated with CMV encephalitis in AIDS. Annals of Neurology (1995), 38, 2, T243.

Brandt PW, Diamond MS, Rutchik JS, Schachat FH. Cooperative interactions between troponin and tropomyosin units extend the length of the thin filament in skeletal muscle. Journal of Molecular Biology (1987) ,195, 885-896.

Brandt PW, Diamond MS, Rutchik JS, Schachat FH. Cooperative Interactions between troponin-tropomyosin units extend the length of the thin filament in skeletal muscle. Biophysical Journal (1987) 51, 28a.

Diamond MS, Brandt PW, Rutchik JS, Schachat FH. The thin filament of skeletal muscle acts as a unit. Biophysical Journal (1985) 49, 46a.

LECTURES AND PRESENTATIONS

Hot Topics in Occupational and Environmental Neurology. Michigan Occupational Health Conference, Detroit, MI. October 2023.

Hot Topics in Occupational and Environmental Neurology. American Occupational Health Conference. Philadelphia, PA, April 2023.

Occupational Medicine Grand Rounds. Mount Sinai Medical Center. Division of Occupational Medicine. Post concussion syndrome and other topics in Occupational Neurology. March 2023

Post Concussion Syndrome, Zuni PHS, Grand Rounds, Zuni, NM. October 2022

Perspectives on Industrial Head Trauma, Western Occupational Health Conference, Napa, CA. November 2022

Challenges with Industrial Head Trauma. California Society of Industrial Medicine and Surgery. San Diego, Ca. November 2022

Hot Topics in Occupational and Environmental Neurology. Post concussion, Post traumatic seizures, Headaches, Fitness for duty; Syncope and seizures, Carbon Monoxide, Manganese, Solvents, Pesticide and Rodenticide Parkinsonism, Functional neurology, Lifestyle medicine. National lecture, AOHC 2022. Salt Lake City, Utah. May 2022

Forensic Consulting: A Consistent Approach. Collaboration with Michael Kosnett, MD, MPH and Attorneys. National lecture, AOHC 2022. Salt Lake City, Utah. May 2022

EMG, NCV, Upper and Lower Extremity Neuropathy. UCSF Occupational Health Nursing Program. Virtual lecture. April 2022.

Neurotoxicology and Occupational Neurology. Toxicology 180. UCSF Occupational Medicine and Occupational Nursing Program. Virtual lecture. March 2022.

Clearing the Air on Toxic Tort Cases. California Applicant Attorneys Association annual meeting. Palm Springs. January 2022.

Hot Topics in Occupational and Environmental Neurology. Brachial plexopathy, Headaches, Fitness for duty; Syncope and seizures, Carbon Monoxide, Toxic neuropathy. National lecture, AOHC 2021. Virtual conference. May 2021

Neurotoxicology and Occupational Neurology. Toxicology 180. UCSF Occupational Medicine and Occupational Nursing Program. Virtual lecture. April 2021.

Neurotoxicology and Occupational Neurology. Mount Sinai school of medicine. Occupational medicine grand rounds. Virtual lecture. April 2021. Virtual lecture.

Neurodiagnostic Testing: Indications, Interpretation, Simple and Complex presentations in Industrial Medicine. COHN. Virtual. June 2020.

Neurotoxicology and Occupational Neurology. Toxicology 180. UCSF Occupational Medicine and Occupational Nursing Program. February 2020.

Neurodiagnostic Testing: Indications, Interpretation, Simple and Complex presentations in Industrial Medicine. Western Occupational Health Conference. San Diego, CA. September 2019.

Hot Topics in Occupational Neurology and Neurotoxicology. Head Trauma, Fitness for Duty in Neurology, Functional Neurology, Solvent Parkinsonism. ACOEM National Lecture. Anaheim, CA, April 2019.

Neurotoxicology and Occupational Neurology. Toxicology 180. University of California SF. Occupational Medicine Residency Program. January 2019.

Page 11 of 16 January 2024

Head Trauma, Claim closure and Fitness for duty in Occupational Neurology. ACOEM. National Lecture. New Orleans, April 2018.

Industrial Exposures in Occupational Medicine Practice. What Hat Are You Wearing? ACOEM. National Lecture. New Orleans, April 2018.

Neurotoxicology and Occupational Neurology. Toxicology 180. UCSF Occupational Medicine and Occupational Nursing Program. February 2018.

Electrodiagnosis and Industrial Neurology. Travelers Continuing Education Series. Rancho Codova, CA. October 2017

Case Studies in Neurology: 6 vignettes. Neck and Arm Pain, Lower Back and Lower Extremity Pain, Entrapment and Toxic Neuropathy, Head Trauma and Functional Neurological Syndromes, Neurology Fitness for Duty and Neurotoxicology. Western Occupational Health Conference, Maui, HI September 2017

Power Neurology. Didactic and Demonstration for Occupational Medicine Providers. Western Occupational Health Conference, Maui, HI September 2017

Conversion Disorder and Neurological Conditions. American Occupational Health Conference. Denver, CO. April 2017.

Neurological Fitness for Duty. Seizures, Stroke, Head Trauma in Commercial Drivers, Police, Firefighters, Safety Sensitive Workers. American Occupational Health Conference. Denver, CO. April 2017

Carbon Monoxide Neurotoxicity. American Occupational Health Conference. Denver, CO. April 2017

Upper Extremity and Neurological Issues in Miners; Neurotoxicity of Arsenic, Lead, Manganese. Mercury and Carbon Monoxide. Seventh International Seminar on Occupational Health and Mining Operations. Institute of Mining Safety. Lima, Peru. October 28, 2016

Chronic Psychosis and Manganese Exposure: Case Presentation and Review of the Literature. Manganese Health Effects on Neurodevelopment and Neurodegenerative Diseases. Mount Sinai Medical Center, New York, NY. September 2016

Head Trauma, State of the Art and Neurological Fitness for Duty. American Occupational Health Conference. Centennial Event. Chicago, IL. April 2016

Toxicology of the Special Sense; Vision, Hearing, Taste and Smell. Occupational Medicine Update, University of California at San Francisco Occupational Health Conference. March 2016.

Update in Neurotoxicology, Invited speaker. Grand Rounds in Occupational Medicine. University of California at Irvine. March 2016.

Introduction to Neurotoxicology and Occupational Neurology, UCSF Occupational Medicine Lecture Series. February 2016.

Neurotoxicology Update. Grand Rounds. Poison Control Center, Toxicology Residency Program. UCSF. February 2016.

Carbon Monoxide and Neurological Sequellae; Tremor and Parkinsonism. Poster Presentation. International Neurotoxicology Conference. Montreal, Canada. June 29, 2015

Neurological Illness and Fitness for Duty. AOHC. National Conference. Baltimore, MD. May 2015.

Stroke and Solvents. Grand rounds. Poison Control Center, Toxicology Residency Program. UCSF. February 2015.

Neurotoxicology and Occupational Neurology, UCSF Occupational Medicine Lecture Series. September 2014.

January 2024

Head Trauma. Management and Claim Closure. California Applicant Association. Sacramento Chapter. September 2014.

Neurological Illness and Return to Work. Webinar. WOEMA. August 2014.

Fitness for Duty in the Safety Sensitive Worker. Seizure, Stroke Head Trauma. US Healthworks National Meeting. Dana Point, Ca. June 2014.

Head Trauma. Complicated Cases. SFICA. Monthly Meeting. May 2014.

Didactics in Neurotoxicology. Malingering, Solvent Induced Parkinsonism, Toxic Neuropathy. ACOEM. National Meeting. San Diego, CA. April 2014.

Neurotoxicology Case Presentations, Toxicology Grand Rounds. San Francisco General Hospital. December 2013.

Head Trauma. Evaluation and Management in the Industrial Setting. North Bay Industrial Claims Association. November 2013.

Neurotoxicology: Evaluation of a Patient with Neurotoxic illness. Conference of Occupational and Environmental Health. University of California at Berkeley. July 2013.

Clinical Update in Neurotoxicology. Western Occupational Health Conference. San Francisco, CA. September 2012

Occupational Environmental Neurotoxicology Update/ Novel neurotoxins. American Occupational Health Conference. Los Angeles, CA May 2012.

Occupational and Environmental Neurotoxicology: Neurodegenerative Diseases. University of California Davis. 30 th Annual Occupational Medicine Symposium, Sacramento, Ca. May 2012

Head Injuries. National Business Institute. Sacramento, Ca May 2012

Evaluation of the patient with Neurotoxic Illness. UCSF. Toxicology 180. Spring 2012.

Neurotoxicology: Evaluation of a Patient with Neurotoxic illness. Conference of Occupational and Environmental Health. University of California at Berkeley. July 2011

Novel Neurotoxins. Occupational and Environmental Medicine Update, University of California at SF. March 2011

Head Trauma: Treatment, Claim Closure and Impairment. National Workers Compensation Conference. Las Vegas, NV. November 2010.

Head Trauma, Headaches, and It's Sequelae in Occupational Medicine. California Pacific Medical Center, Resident Grand Rounds. San Francisco, CA. October 2010.

A Neurological Assessment of a Community with Perchloroethylene Exposure. Oral Presentation. 26th International Neurotoxicology Conference. Portland, OR. June 2010.

Neurotoxicology. Occupational Health Nursing Course in Toxicology. UCSF School of Nursing. Occupational Health Nurse Practiotioner Program. March 2010.

Clinical Cases in Occupational and Environmental Neurology. California Pacific Medical Center, Resident Grand Rounds. San Francisco, CA. October 2009.

Power Neurology (Didactic and demonstration of neurological examination and Occupational and Environmental Neurology Update) Western Occupational Health Conference, WOEMA. Scottsdale Arizona, September 2009.

Page 13 of 16 January 2024

Clinical Neurotoxicology. Conference of Occupational and Environmental Health. University of California at Berkeley. July 2009.

Clinical Presentations of Manganese Neurotoxicity. Round Table 241 Global Health Practices. American Industrial Hygienists Association Annual Conference. June 1, 2009.

Case Studies in Industrial and Toxic Neuropathies. 27th Annual Occupational and Environmental Medicine Symposium. University of California at Davis. Sacramento, CA. May 30, 2009

Occupational and Environmental Neurotoxicology. The Body's Response to Environmental Stress. Oregon Health Sciences University. Center for Research in Occupational and Environmental Toxicology. Portland, OR. May 29, 2009

Headaches, Head Trauma and the AMA guidelines. North Bay Workers Compensation Association Spring Meeting. April 2009

Screening Welders for Parkinsonism. EPICOH - NEUREOH. San Jose, Costa Rica. June 2008.

Evaluation of the Patient with Neurotoxic Illness. Seminar on Multiple Exposures. EPICOH - NEUREOH. San Jose, Costa Rica. June 2008

Clinical Neurotoxicology. UCSF Occupational Health Nursing Curriculum. May 2008.

EMG/ NCV Primer. UCSF Mt Zion Occupational Health Grand Rounds. May 2008.

Screening Welders for Parkinsonism. Abstract and Oral Presentation. American Occupational Health Conference. American College of Occupational and Environmental Medicine. New York, NY. April 2008.

Hot Topics in Neurotoxicology. Carbon Monoxide and Manganese. Grand Rounds. University of California Irvine, Dept of Occupational and Environmental Medicine. March 2008.

Electrodiagnosis in the management and treatment of cervical and lumbar radiculopathy. Western Occupational Medicine Conference. WOEMA. San Diego, CA October 2007.

Electromyography in Upper Extremity disorders. EMG and NCV primer. Western Occupational Medicine Conference. WOEMA. San Diego, CA October 2007.

Clinical Neurotoxicology. Conference of Occupational and Environmental Health. University of Californania at Berkeley. August 2007.

Idiopathic Parkinson's Disease and Manganism: Similarities and Differences. American Occupational Health Conference. Health Effects of Welding. Course Director. April 2007.

Clinical Presentations of Idiopathic Parkinson's Disease and Manganism in Humans: Similarities and Differences. Society of Toxicology Seminar. Charlotte, NC. March 2007.

<u>Assessment and Treatment of Toxic Neuropathy. UCSF Occupational Medicine Update. Holiday Inn, San</u> Francisco. November 2006.

Occupational and Environmental Neurotoxicology. Humboldt/ Del Norte County Medical Grand Rounds. St Joseph's and Mad River Hospitals, Eureka and Arcata, CA. November 2006.

What is Manganism Toxicity? UCSF Occupational Medicine Grand Rounds. October 2006.

Neurotoxicology Update, Carbon Monoxide, Manganese and Neuropathy. Meet with The Professor Series, WOHC Meeting. Lake Tahoe, CA. September 2006.

<u>Cases in Occupational Neurology; Entrapment Neuropathy, Carbon Monoxide and Manganese Toxicity. Concentra Medical Centers Northern California Provider Meeting. August 2006.</u>

Page 14 of 16 January 2024

<u>Atypical Parkinsonism in a Steel Cutter. Oral Presentation. International Occupational Medicine Conference, Milan, Italy. June 2006.</u>

What is Manganism Toxicity? Invited Lecturer. Guanxi Medical College. Nanning, Guangxi Province, China. November 2005.

Neurotoxicology Update. Meet the Professor Lunch Series. Western Occupational and Environmental Medicine Conference, Monterrey, CA. September 2005.

Occupational and Environmental Neurotoxicity. Guest Lecturer. Schools of Nursing and Public Health. UCSF. July 2005.

Electromyography, Nerve Conduction Velocity and The Neurological Examination. Guest Lecturer. Occupational Medicine Resident Forum. June 2005.

Organic Solvent Neurotoxicity. Invited Lecturer. Fourth National Mexico Forum on Occupational Medicine. Acapulco, Mexico. June 2005.

Assessment and Treatment of Pain from Toxic Neuropathy. Occupational Medicine Update. UCSF. April 2005.

Evaluating a patient with Neurotoxic Illness, State Of The Art Conference, SOTAC, American College of Occupational and Environmental Medicine Conference, San Antonio, TX. November 2004.

Current Controversies in Neurological Illness and Environmental and Occupational Medicine, Fellowship Forum, UCSF, Division of Occupational Medicine, August 2004.

Neurology in Occupational Medicine, North Bay Applicant Attorney Conference, Santa Rosa, CA. August 2004

"Repetitive Strain Injuries from a Medical Perspective." Ergonomics Summit. International Business Forum. Manhattan Beach, CA January 2004.

"Electromyography Primer." UCSF Occupational Health Roundtable. Mt. Zion. SF, CA December 2003.

"Treatment of Patient with Concussion and Headaches." Kaiser on the Job Occupational Health Symposium. November 2003.

"Occupational Neurology." AIG Education Seminar. November 2003.

"Evaluation of a Patient with Mold Exposure and Neurological Complaints; No Easy Answers." Solvent Water Intrusion and Mold Problems Conference. Lorman Education Series. October 2003.

"Electromyography Primer." Kaiser Permanente Occupational Medicine Grand Rounds. San Francisco, CA. August 2003.

"Electromyography/ Nerve conduction velocity and Occupational Neurology Case Studies." Center for Occupational and Environmental Health, University of Calfornia at Berkeley Summer Lecture Series. Emeryville, CA. August 2003.

"Controversies in Neurotoxicology." UCSF Advances in Occupational and Environmental Medicine, May 2003,

"Occupational and Environmental Neurology." Occupational Health Conference. Atlanta, GA. May 2003.

"Common neurological disorders in the Workplace." Center for Occupational and Environmental Health, University of Calfornia at Berkeley Summer Lecture Series. Concord, CA. August 2002.

- "Electromyography and Evoked Potential Primer." Traveler's Insurance Educational Seminar. Walnut Creek, CA. June 2002
- "Neurology in Occupational Medicine." Lunch educational series. Laughlin, Falbo LLP. June 2002.
- "Controversies in Neurotoxicology." American Occupational Health Conference. Chicago, IL. March 2002.
- "Alternative Methods to Evaluate the Peripheral Nervous System; Technology Review." American Occupational Health Conference. San Francisco, CA. April 2001.
- "Occupational and Environmental Neurology" Postgraduate Seminar. American Occupational Health Conference. San Francisco, CA. April 2001.
- "Practical Occupational and Environmental Neurology." Grand Rounds Presentation. Division of Occupational Medicine. University of California at San Francisco. January 2001.
- "Occupational and Environmental Neurology: Case Presentations." Northern California Chief Physician's Meeting. Department of Occupational Medicine. Kaiser Permanante. Oakland, CA. November 2000.
- "Clinical Experiences of an Occupational and Environmental Neurologist." Poster presentation. AOHC 2000. Philadelphia, PA. May 2000.
- "Introduction to Neurotoxicology." Spring Semester. Industrial Toxicology Course. Columbia University School of Public Health. New York, NY. March 2000.
- "Chlorinated Ethylenes: Neurological Sequellae." Environmental Health Grand Rounds. School of Public Health. Columbia University. New York, NY. November 1999.
- "Occupational and Environmental Neurology: Case Presentations." Occupational and Environmental Medicine Grand Rounds. Environmental and Occupational Health Sciences Institute. Rutgers Unversity. Piscataway, NJ. October 1999.
- "Neurological Sequellae in Ammunitions Workers." Symposium Presentation. American Psychological Association. Annual Meeting. Boston, MA. August 1999.
- "Neurology in Occupational Health." Invited Lecturer. HIP Worker's Compensation Division. New York City Adjusters and Nurse Case Managers. New York, NY. May 1999.
- "Practical Occupational and Environmental Neurology." Postgraduate Seminar. American Occupational Health Conference. New Orleans, LA., April 1999.
- "Practical Occupational and Environmental Neurology." Invited Lecturer. Arbella Insurance. Massachusetts Insurance Adjusters and Case Managers. Foxborough, MA. November 1998.
- "Clinical Experiences from a University Occupational and Environmental Neurology Program." Poster Presentation. State of the Art Conference in Occupational and Environmental Medicine. Phoenix, Arizona. October 1998.
- "Neurology in Occupational Health." Invited Lecturer. Chubb Insurance. Eastern Massachusetts Adjusters and Nurse Case Managers. Westboro, MA. August 1988.
- Invited Participant. Planning Committee Meeting for Persian Gulf War Syndrome Conference. Center for Disease Control and Prevention. Washington, DC. July 1998.

"Musician Injuries." Invited Speaker. Berklee School of Music, Boston, MA. Summer Program. June 1998.

"Choosing Neurology as a Career." Lecture. National Youth Leadership Forum. Boston, MA. Julys 1996, 1997 and 1998.

"An Occupational and Environmental Neurology Subspecialist." Poster presentation. American Academy of Neurology Annual Meeting. April 1998.

"Practical Occupational and Environmental Neurology." Lecture. Grand Rounds. Occupational Medicine Program. Harvard School of Public Health. April 1998.

"Introduction to Neurotoxicology." Guest Lecture. Toxicology Course. BU School of Public Health. April 1998.

"Neurological Sequellae to Chlorinated Ethylene." Poster Presentation. International Neurotoxicology Conference. Little Rock, Arkansas. October 1997.

"Toxicology of the Visual System." Poster presentation. American Occupational Health Conference. American College of Occupational and Environmental Medicine Annual Meeting. Orlando, Florida. May 1997.

"Neurotoxicological Sequellae to Chlorinated Ethylene." Lecture. Seminar on Chlorinated Ethylenes. Boston University School of Public Health. April 1997.

"Utilization of Electromyography and Nerve Conduction Velocity to Evaluation of the Peripheral Nervous System Dysfunction of Viscose Rayon Workers." Lecture. Environmental Epidemiology Course. Boston School of Public Health. October 1997.

"Toluene and Manganese Neurotoxicity." Lecture. Health Standards Division. Department of Labor. Occupational Safety and Health. February 1997.

"Neuropathy and Carbon Disulfide." Lecture. Health Standards Division. Department of Labor. Occupational Safety and Health. August 1996.

"Toxicology of the Visual System." Lecture. Grand Rounds. Department of Ophthalmology. Boston Medical Center. May 1996.

"Neurology Data Collection From ICD-9-CM Codes to Encourage Departmental Statistical Record Keeping and Analysis." Poster presentation. American Academy of Neurology Annual Meeting, May 1995.

"Axonal Neuropathy and Carpel Tunnel Syndrome." Lecture. Division of Neuromuscular Diseases. Department of Neurology, Mount Sinai Medical Center, Spring 1995.